CHAPTER-I

INTRODUCTION
CHAPTER - 1

1.1 INTRODUCTION

Information is crucial for any body in the modern society. There is probably not single person on earth who does not know what it is and what it can do to one's life—or rather how the presence or absence of information affects life. Information is universal—it is known to all men in all languages. There may or may not be a precise or apt word in a language to describe the term ‘information’ but surely it is there. It is part of every part of our lives. We receive information throughout the day. When we wake up the radio and newspapers give us information about what went on while we slept. The milkman, the grocer, the maid and other also provide us with different types of information. At the workplace, we receive and give information from and to our seniors, our peers and our subordinates. We call up family, friends and acquaintance to gather information on a variety of matter ranging from the weather forecast for the next twenty-four hours to the best brand of washing machine available in the market; from the progress of a cricket match to the price of an air ticket to Goa. We visit the library and scan journals for information that would help us complete an assignment. In short, there is no area of life that information does not touch.
Information is power. Where information is concerned, there are the haves and have nots. The information rich and the information poor. People go bankrupt and even lose their lives in the pursuit of information. Thus we are no strangers to the power of information. Our very lives depend on it.

That information exists goes without saying. We talk about it, we seek it, we exchange it and we pay for it. Ironically though, despite our familiarity with information, we have not been able to properly define the term.

Some attempts at defining the term ‘information’ are:- “Information is any stimulus that reduces uncertainty”. Shannon and Weaver (1).

Ching-chih chen and peter Hernon (2) define information as “all knowledge, ideas, facts, data, and imaginative works of mind which are communicated formally or informally in any format.”

When asked what ‘information’ means and pat will come the reply “information is facts (or data, or knowledge, even wisdom)”. Many terms are used as synonymous or near synonyms of information and this creates a lot of confusion. There is a very thin line drawn between the meaning of all the terms mentioned above and that of information data. While it is not altogether wrong to call information data or fact or even knowledge- yet it may be that either some of these terms (data facts) are only a part of information or that information is a part of them (knowledge, wisdoms). An understanding of each term may clear the confusion:-
**Facts:** - Things known to have happened or to be true or to exist.

**Data:** - Data is the smallest element of information. Data might be language, mathematical or other symbolic surrogates which are generally agreed upon to represent people, objects, events and concepts.

**Knowledge (3):** Knowledge is an organized set of statements of facts or ideas presetting a reasoned judgment or an experimental result which is transmitted to other through communication medium in some systematic form. From the above definitions, it is clear that the three concepts are interrelated since one is the building block of the other. The interrelationship can be understood from the following examples.

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<td>Knowledge</td>
<td>Finished product or further</td>
<td>cloth or further</td>
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Wisdom(4) on the other hand is an individual trait, which comes to one through acquisition of sound knowledge, and the related virtues gained through age and experience. The trait may comprise among others, ability to see
far ahead into the future, have vision of things to come and judgment in selecting the right alternatives among several others available, for making a decision. While it is the highest from of knowledge, wisdom cannot be transferred, it can only be acquired.

(5) Although the term ‘information’ and ‘data’ are often used interchangeably, there is a crucial difference between the two. Information consists of classified and interpreted data that are being used for decision-making. It is definitely different from ‘data’. (6) Access to data does not automatically convert itself into information. Inference and interpretation are required. Some data can be disinformation.

According to Machlup (7) the difference between information and knowledge can be understood as follows:-

1. Information is piece meal, fragmented and particular while knowledge is structured, coherent and universal.

2. Information is timely, transitory, perhaps even ephemeral where as knowledge is of enduring significance.

3. Information is a flow of messages while knowledge is a stock largely resulting from that flow.

4. Information is acquired by being told while knowledge is acquired by thinking.
1.2 ORIGIN OF INFORMATION

Where does the information that is so vital to human life, come from?. An in-depth study of how information is generated would be a difficult task, but it can safely be concluded that research is one of the better known areas where information takes roots. Most of what we know today is a result of research. The work of experts in the fields of science, technology, social science and the humanities continues to give birth to information that is beneficial to the whole society. The government, understanding the major role that R&D play, also continues to pour funds into these fields as a result of which more and more information is generated —so much so that the world is being bombarded with information leading to the phenomenon termed ‘information explosion’.

When governmental and non-governmental organizations perform their routine duties, they also generate information whether or not they are aware of the fact. For example, the police department provides vital information about such burning topics as terrorism, corruption and the like, in the course of carrying out its routine duty of maintaining law and order. In the same way other government departments are also responsible for a lot of information available to us.

(8) Business and industrial information is generated through the activities of business and industrial organizations. Social and political
information is made available to us through the recordings of the people (historians, critics, political commentators) who live in different ages of years.

1.3 SOURCES OF INFORMATION

The generated information cannot just float about in air just - as water is contained in vessel, so too is information contained in different sources. Information finds its way into the following type of sources:-

**Primary Sources:** Such as periodicals, research reports, conference proceedings, patents, standards trade literature, Theses etc.

**Secondary Sources:** Such as indexing and abstracting periodicals, reviews of progress, reference books (encyclopedia, dictionaries, handbooks, tables, formularies etc), treatises, monographs, textbooks etc.

**Tertiary Sources:** Such as yearbooks and directories, bibliographies, guides to the literature. Lists of research in progress, guides to libraries and sources of information, guides to organization etc.

There are also audio – visual sources such as filmstrips, slides, video audio tapes etc. Most of the printed sources are also available online now. Further, these sources are found in bookstores, libraries information centers etc.
1.4 PROPERTIES OF INFORMATION (9)

1. Information is not consumed in its use.

2. It can be shared by many and can be used simultaneously without any loss to anyone.

3. It is most democratic resource in that it can be consumed by poor and rich alike depending upon the intake capacity.

4. Information is dynamic ever growing and continuing and no final word is said or will ever be said on any aspect of it.

1.4.1 PROPERTIES ON SCIENTIFIC AND TECHNICAL INFORMATION

1. It is universal, particularly in the physical, chemical and Biological sciences.

2. A system of peer review and mode of communication operate in its dissemination.

3. Peer group review ensure quality to a large measure.

4. Healthy competition results on account of peer review and speedy communication.

5. Scientific and technological information becomes obsolete in fast developing disciplines and the obsolescence factor it quite high in some of them.

6. Exponential growth in scientific publication has been causing concern in accessibility and availability.
1.5 TYPES OF INFORMATION

According to shera (10) there are six type of information;

A. Conceptual information - relating to ideas, theories and hypotheses about the relationship which exists among the variables in an area.

B. Empirical information - relating to data and experience of research which be drawn from oneself or communicated through others.

C. Procedural information - this is the data obtained, manipulated and tested through investigation.

D. Stimulatory information- is motivated by oneself or the environment.

E. Policy information – is focused on the decision making process.

F. Directive information – is used for coordinating and enabling effective group activity.

1.5.1 USES OF INFORMATION

1. Information as process–when someone is informed, what they changed. The information process has been explained by the Oxford English dictionary (11) as, “The act of information; communication of the knowledge or ‘news’ of some fact occurrence; the action of telling or fact of being told of something”.

2. Information as knowledge (12) – information is also used to denote the “knowledge communication concerning some particular fact,
subject or event; that of which one is apprised or told; intelligence, news”.

3. Information as thing (13) – the term ‘information’ is also used attributively for objects, such as data and documents.

1.5.2 QUALITIES OF INFORMATION:-

If information is to be effective, it has to have the following qualities (14) they are self-explanatory

a. Accessibility
b. Comprehensiveness
c. Precision
d. Compatibility
e. Timeliness
f. Clarity
g. Flexibility
h. Verifiability
i. Unbiasness
j. Quantifiability

Brophy (15) provides more or less the same list of qualities as the above with the addition of qualities like relevance. Historicity, completeness and reliability. His explanation of the importance of relevance and timeliness are worth noting.

i. Relevance (16) – Information that is not relevant is not information at all, but data irrelevant information is known to be counterproductive. This was stated in a report by the American Account Association which stated, “To have information used for
purpose for which it has no relevance is likely to be worse than having no information at all.

ii. Timeliness (17) – The timeliness of information is particularly critical in the managerial situation. If the information arrives too late, the decision will already have been taken. If it arrives too early its significance will be lost at the crucial moment, perhaps because of ‘information overload’ or it will appear to be irrelevant, will be ignored and may not be recalled later.

1.5.3 INFORMATION OVER LOAD

(18) Innovation in information technology, such as the printed book, the periodical magazine or journal, the abstracting journal and the computer have all led to complaints that it is impossible to keep up with the amount of information available. (19) Torrents and rivers of current literature pour themselves into libraries ‘adding’ without cease, to what is already there. This is information overload.

The term ‘information overload’ (20) is usually taken to represent a state of affairs where an individual’s efficiency in using information in (his) work is hampered by the amount of relevant and potentially useful information available to (him). It is usually associated with a loss of control over the
situation, and sometimes with being overwhelmed. The problems were affecting the effectiveness and even the health of professional workers, particularly managers in businesses, and was severely affecting the efficiency and productivity of organization.

(21) Information technology is considered to be the major cause of information overload. Paradoxically it has also provided the tools to help solve the problem. It is thus a ‘two-edged’ sword.

One of the solution for overcoming the problem is selective dissemination of information (SDI). A need is felt for an intelligent agent to filter incoming material, and/or scan for interesting things in a variety of sources.

(22) Information professionals also have a role in combating information overload. This they can do through traditional information handling skills like creating catalogues of web resources and providing advice of focused searching. While earlier it was their duty to identify and access all relevant information, they now have to take on the role of protecting the users from information.

This chapter has tried to touch some aspects of information, it goes without saying of course that the study of information - its meaning, its properties, qualities its use and so on, is no mean task – the area of study is too vast. This has only just scratched the surface.
1.5.4 VALUE OF INFORMATION

It is extremely difficult to define the value of information. The difficult systems from the following characteristics of information.

I. Information is subjective because its effectiveness ultimately depends upon the recipient - essentially a decision maker (D M). The decision maker may accept it or reject it, acknowledge it or ignore it externally through, even though it may help him in decision making.

II. One can at best assign some 'expected value' to pieces of information which could affect the course of action chosen by the individual. As per Voigt, information has more of an incremental value than the absolute value.

The role and value of information has been much discussed by economist is in the context of competitive marketing, advertising and prices,. In the context of information and knowledge it has received even less attention. The cost benefit analysis has also been used to study the value of information. The report by flower dew and whiter head is a model of clarity on the value of information. Paradoxically its success lay in the manner in which it convincingly showed that evaluating information is extremely difficult. They
have concluded that ‘no really satisfactory cost–benefit study has yet been

In order to measure the effectiveness of information, we need to:-

i. Define the objective for which information is being provided.

ii. Stipulate the units of information for measurement.

1.6 INFORMATION NEED:

The objective of studying information needs and uses may be;

i. The explanation of observed phenomena of information use of
   expressed need; of better yet.

ii. The prediction of instances of information use; or still better.

iii. The control, and thereby improvement of the utilization of
    information through manipulation of essential condition.

This implies, a fairly accurate assessment of the information needs of
users to be made, as this alone will form the primary basis for all information
activities.

A discussion of information need can be sequenced into:-

i. Factor that generate differential information needs.

ii. Types of information needs.
Perhaps the most important factor influencing the scientist or technologist needs is the type of work in which he is engaged. The type of information needs can be categorized according to the substances (natures of material) versus channel dimension.

The investigation of information needs has presented seemingly intractable problems. The progress toward some theoretical understanding of the concept of information need has been slow. There are problems of the conceptualization of the term 'information need' and difficulty of separation of the concept from 'want' 'expressed demand', 'Requirements', 'satisfied demand' etc.

(23)The 'information needs' of the user have to be satisfied by the libraries and information centre through their services. The information needs relate to.

i. Which information is needed i.e. the subject or theme. It presupposes that any and all information about the requested subjective will somehow satisfy the information need.

ii. The other approach is rather different. It might be called a situational approach; given a user wanting information on a certain subjects, What can we do to satisfy this need? What does he our she want to know, at
which level of detail and abstraction etc. This specifies the intrinsic
characteristic information, whatever the subject may be.

1.6.1 NATURE OF INFORMATION NEED;

The information need (need for information) is factual situation in
which, there exists an inseparable interconnection with, 'information' and
'need' information originates and is generated because there exists need or an
interest. The content of information is of primary concern; The 'information'
objectively necessary for realizing a function is the objective information. Such
'information needs' of users have to be satisfied.

The need for information with specific content is an objective
demand of the use. [If an individual is in need of specific information for
realizing specific tasks, and then the need for information is an objective
information need i.c. qualitatively and quantitatively determined information
needed by an individual for solving an objectives assigned task]. Since any
individual already has certain qualitatively determined information that may be
used in solving the tasks, then his information need has already been satisfied to
a certain degree. There will always remain a need resulting from the difference
between the objective (overall) need and that part of it that has already been
satisfied. Thus satisfying the information need always means satisfying that
need which has not yet been satisfied.
1.6.2 INFORMATION NEED: DEFINITION

Defining the 'information need' requires a definition of the term 'need' moreover the dictionary meaning of the closely related terms like requirements, wan, demand has to reanalyzed in order to have true perspective of the 'information need'. Before the terminological clarification is attempted, it may be emphasized that information need exist objectively, that is they are oriented towards reality, practice and task.

The dictionary meaning of the various related terms are as under:

**Need:**- Want of something, which one cannot well do without.

**Want:**- A state or fact of being without of having an insufficient quantity, absence of deficiency of necessities.

**Requirement:** - A need a thing needed; a necessary condition.

**Demand:**- To require, asking for what is due, asking for something.

The usage of the terms reflect the critical lack of exclusivity. We find that in the literature, the above terms have been often used interchangeably without an attempt to have a clear distinction in the meaning. There is often confusion due to imprecise use of the above terms in context to user needs.
1.6.3 BASIS OF INFORMATION:

The next immediate question is what is the condition for concluding that a particular person has a need for information. Whether the awareness of the need for information either necessary or sufficient for concluding that the need exists? Secondly whether the presence of a desire for information is necessary condition for saying that there exists a need for information.

According to Derr (24) the presence of a purpose for the use of information leads us to conclude that it is needed. Thus the presence of what might be called an ‘information purpose’ is a necessary condition of information need. He has emphasized two necessary conditions for information need as under.

I) The presence of an information purpose.

II) The information, in question, contributes to the achievement of an information purpose.

It has been seen that the users do not always need the information requested by them. They lack a genuine purpose for the use of information, this implies. That the claim rests upon a judgment about the users information purpose. Judgment is required to see whether the information, in question contributes to the achievement of an information purpose. The conclusion that an individual of organization has a purpose for the certain items of information
is a value judgment. Further the judgment as to whether the information in question, contributes to the achievement of a designated information purpose is a straightforward factual judgment.

1.6.4 IDENTIFICATION OF INFORMATION NEED:

According to Girjakumar (25) the information need may be expressed as input-process-output medal. The basic component of the systems are; (a) problems (b) problems silting process, and (c) solution. The problems are analyzed to determine information needs. It is indicative of the uncertainty in knowledge. Solution results in resolving of the situation filling the gap in the knowledge. The model set forth by him can be illustrated as below.

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<th>Input:</th>
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<th>output</th>
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<tr>
<td>Problem</td>
<td>problem solving process</td>
<td>solution</td>
</tr>
<tr>
<td>Information need</td>
<td>search process</td>
<td>information need</td>
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<td>Fulfilled</td>
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Information need can be divided into the following categories (26)

i. Social or pragmatic information need
   Information required to cope with day to day life.

ii. Reaction information needs
   Information satisfying the relational and cultural interests of an individual.

iii. Professional information needs
   Information required operating comp entry within a business or Professional environmental.

iv. Education information needs
   Information required to satisfy academic requirement at an institution

The concept of need is not yet clear as Brittan (27) points out that an information need may refer to the

i. Need expressed by the user; or

ii. Need that a user cannot express;

iii. present or immediate need; or

iv. Future of deferred or potential need.
Further, Childers (28) has categorized need as ‘kinetic’ and ‘potential’.
The kinetic are need is directed toward satisfying a special problem, diagnosed and immediate. Potential needs remain unconscious hidden under layers of attitude, impulses and values.

Information needs as Paisley (29) observed are affected by a variety of factors, which are as under.

i. The range of information services available.

ii. The uses to which information will be put to use.

iii. The background, motivation, and professional orientation, and other individual characteristics of the user.

iv. The social, political and economic systems surrounding the user.

v. The consequences of information use.

According to him information need is not a psychological state of mind rather it is an objective need oriented toward particular tasks, problems etc.

1.6.5 TYPE OF INFORMATION NEED

Tague (30) has presented the following type of information needs (most of which are self explanatory).

i. Social or pragmatic information needs – required for coping with day –to-day life.

ii. Reaction information needs.
iii. Professional information need.

iv. Educational information need.

Another categorization can be the following:

**Success needs**- for employment opportunities, self improvement (dress, speech, personal carriages.)

**Specialized information need** – for the physically handicapped, emotionally disturbed, geographically isolated the non-English speaking group etc).

### 1.6.6 FACTOR AFFECTING INFORMATION NEEDS

By far the most important factor that affects the information needs of an individual is the type of work in which he is involved – as found by Lin and Garvey (31) Another factor (relating to type of work) is whether the work is basic or applied.

The discipline within which an individual is working also affects his information needs – for examples, the information needs that of research as on the social science because science is ever growing. The scientist will need to constantly update his knowledge i.e. He has to catch with the latest development. Other factors include social political, economic and legal.
1.7 INFORMATION SEEKING BEHAVIOUR:

When need is felt for anything, more often than not people take action in order to satisfy that need. Different strategies or modes of action are resorted to. The same applies for the satisfaction of information needs. An individual realizes that he needs information, he knows that in all probability the information will not come to him on its own, therefore he has to go about seeking it. What strategies or processes he resorts to, in order to satisfy the need for information, is the focus of study here.

Ching-Chih-Chen (32) has defined information seeking as follows, "information seeking patterns are the paths pursued by the individual in the attempt to resolve a need".

According to Girja Kumar (33) "information seeking behavior is mainly concerned with who needs what kind of information for what reasons; how information is found, evaluated and used".

T.D.Wilson (34) defines what he calls 'information behavior' as "those activities a person may engage in when identifying his or her own needs for information, searching for such information in any way, and using or transferring that information".
1.7.1 THE INFORMATION SEEKING PROCESS:

Many models (35) have been framed in order to explain the information seeking process. A model is a framework for thinking about a problem, and any evolve into a statement of the relationship among theoretical propositions – or put more simply models. Are statement, often in the form of diagrams, that attempt to describe information seeking activity, the causes and consequences of that activity, or the relationships among stages in information seeking behavior. Some of the models that have been developed so far are given below:-

Ellis, and Ellis, Cox and Hall (36, 37)- Ellis and co use the term 'feature' rather than 'stages' in information seeking, the features according to them are:-

Starting;- The means employed by the user to begin information seeking, for example, asking a knowledge colleague.

Chaining; - following footnotes and citation in known material or 'forward chaining from known items through citation indexes

Browsing; - semi-directed or semi-structured searching

Differentiating; - using known differences in information sources as a way of filtering the amount of information obtained

Monitoring; - keeping up-to-date or current awareness searching

Extracting; - selectively identifying relevant material in an information source
Verifying: checking the accuracy of the information

Ending: i.e. the tying up of loose ends through a final search.

Fig: 1: A stage process version of Ellis's behavioral framework

Kuhlthau (38) studying the information seeking behavior of students doing a research assignment, formulated a model depicting common patterns of tasks, feelings, thoughts and actions in six stages:

Initiation: to recognize information need

Selection: to identify general topic.

Fig: 2 Wilson's 1981 Model of Information Behavior
**Exploration**: to investigate information on general topic

**Formulation**: to formulate focused perspective

**Collection**: to gather information pertaining to focus

**Presentation**: to complete information search

Wilson (39) on the other hand provides the following model to explain the process (Ref. Fig. 2).

The models suggest that information seeking behavior arises as consequence of a need perceived by an information user, who in order to satisfy that need, makes demands upon formal or informal information sources or services, which results in success or failure to find relevant information. If successful, the individual then makes use of information found and may either fully or partially satisfy the perceived need – if he fails to satisfy the need, he will have to start searching again. The model also shows that part of the information – seeking behaviors may involve other people through information exchange and the information perceived useful may be passed to other people as well as being used by the person himself of herself.
In 1996 Wilson (40) revised his earlier model after drawing upon research from a variety of fields other than information sciences, including decision making, psychology innovation, health communication and consumer research. While the basic framework of the 1981 model remains, the revised model had a few additions as follows.

The terms used in the new model are explained as follows: intervening variables represent the 'barriers' whose impact may be supportive of information use as well as preventive; 'information seeking behavior' is
shown to consist of more types than previously, information processing and use is shown to be necessary part of the feedback loop if information needs are to be satisfied; the stress/coping theory tries to explain why some needs do not invoke information – seeking behaviour the risk/reward theory tries to explain which sources of information may be used more than others by a given individual; and the social learning theory embodies the concept of ‘self efficacy’ i.e. the conviction that one can successfully execute the behavior required to produce the (desired) outcome.

Girja Kumar’s (41) presentation of the information seeking process is as follows:

i. Identifying objective
ii. Defining need
iii. Assessing information systems
iv. Establishing sources of information
v. Information actuation
vi. Use of information
vii. Satisfaction/Dissatisfaction

According to Line (42) all people are individuals and will seek and use information in different ways. Much of our daily life is spent in information gathering and sifting of one kind or another - merely looking at people involves
an information process, since we notice thing about them and do a rapid assessment. Most of this information gathering is carried out automatically, and is not perceived as such; it is an integral part of our personalities and we all do it differently. There is no such thing as a homogeneous body of information users. A group of people with the same time level of education may be different way on the same subject at the same time; but they will sue some information in different away. Some information will obviously be relevant to all of the them. Some to only one or two. Some of the group will scan and absorb vast quantities quantities of material, others, will read much less. Some will be content with abstracts of many articles, some will not. Some will prefer oral channels, some will prefer to see information in print so that they can pour over it; some always prefer to ask other people; some prefer to avoid people whenever they can. Some like browsing. Some find it a waste of time and energy. Some enjoy computer searching, some have technophobia; and when people do search – they use internet in every different ways.

1.7. 2 FACTORS AFFECTING THE INFORMATION SEEKING BEHAVIOUR

The means that an individual resorts to in order to satisfy information need depend on certain factor. Certain points will have to be considered when an individual decides on a certain course of action, they includes;
i. Whether the source is within reach
ii. Whether money will be involved—if so, much money
iii. Whether time will be involved, if so, how much time
iv. Whether the source will have the answer to their problem
v. Whether they will understand what the source provides as answers

Other factor includes social political, geographical, education, Etc.

Social factor—For example, a desire for information on such topic as sex education, fashion, music (openly available in other societies), may not be looked upon kindly in certain societies (read ‘closed’ societies) as a result of which an individual may have to resort to stealthy means for acquiring the information.

Political factor—the political systems (particular those under dictatorship may define certain types of information (defense, freedom, of speech, of expression, rights etc) as forbidden to particular r[group or to the public as a whole, consequently, the non-availability of such information may motivate a person resort to ‘underground’ (in the government opinion) means.

Geographical factor—the geographical location of an individual also decided how he goes about seeking information. Geographical isolation leads a personal to resort to uncommon means of seeking information.

Education factor—the education and uneducated may have differing methods of seeking information, the educated persons resorting to more formal means
while the uneducated depending more informal methods (i.e. other people).

Belkin (43) has extended the psychological approach with the inquiry into the reasons for seeking information and the developments of the seeking of an 'Anomalous state of knowledge' which hypothesis that informational arises from the recognized anomaly in the users' state of knowledge concerning some topic of situation and that, in general. The user is unable to specify precisely what is needed to resolve that anomaly. Information behavior is seen as related to some problems situation in the relationship between the user and user's models of the world. Wersig's concept (44) of the problems state depicts internal models of knowledge, belief, Goals, environments, and situation as forming the basis of information need and information seeking behaviors. The best way to view information behavior is to treat it as an aspect of human behavior in general.

The study of individual information seeking behavior will require some sort of representation of the psychological state of the users., in terms not just of knowledge or lack of it but also beliefs aspiration goals and so on. Investigation into their perception of user may lead to insight into their expectation and predications that prompts their information seeking activity.
The factor that influence the human seeking behavior include

Payoffs and costs
Resources available
Update rates
Amount of information available
Diagnostic of data
Distributional characteristics of data
Conflicts among sources

It may be emphasized that a correct appraisal of information seeking behaviors implies knowledge of:

i. The purpose for which information is required.

ii. Environment in which user operate.

iii. Users skill in identifying information need and information provides, skill in providing information.

iv. Channel and sources for tapping the information, and

v. Barriers to in Formation.
1.8 SIGNIFICANCE OF INFORMATION

There is no field of human activity where information is not a component. Whether it is research and development, business and industry, government affairs, education and training; the information has to be acquired, processed, stored, retrieved, and disseminated for communication. Indeed the effectiveness of performance in all these spheres of activity depends largely upon the availability of information at the right time in adequate quantity. All human activities result in the creation of information which is mostly communicated through various media. It is absolutely necessary for an information system to respond to environmental stimuli and acquire information to meet the requirements of user interests. Another significance and important aspect of information is the general acceptance that there should be flow and exchange of scientific and technical information without any barriers. Information is viewed as an essential resource for all economical and social change. Information is for use. It is capable of converting natural resources into artifacts and consumable product.

Information generation, dissemination, transfer, and communication take place between people through diverse channels and media, in a variety of context and environments. In other words, individual has to operate in an information communication environment of their own. Hence a fairly accurate assessment of information need of users has to be made. Because this will alone
form the ordinary basis for all information activities; the information need of user groups has to be assessed for the effective provision of information services meeting their needs.

The information handling activities are to be based entirely on the needs of the users. The user's categories have different needs for information depending upon their functions, responsibilities and duties. The user groups include government officials, legislators, parliamentarians, industrial entrepreneurs, researchers, teachers, students, skilled workers in various sectors of production, grass root level people in village and the general public. Information need varies distinctly among these categories of users. The matching of information needs to sources of information has to be based on the careful assessment of information needs. Use of information, use behaviors in gathering information, expressed needs of information; gaps in information supply, type of information requirements to meet variety of use become the focus of study today.
1.9 NEED FOR STUDY

The study of use of information by the faculty and the research scholar in biological sciences university users especially in developing countries has been a significant. The current ambition of information atmosphere in rich characterized by an explosion of information sources and providers, a multiplicity of methods for accessing information, from multiple sources. The purpose of this study is to determine information requirement of scholar and faculty their awareness about resources, and their behavior.

Many research studies evaluated the relation between users and their behavior toward seeking knowledge. There are several factors, which have significant effect on user behavior. Information needs and information seeking behaviors change from culture to culture and country to country. Information needs and seeking behavior is also affected by the of university and libraries. Users want simple and common interfaces and they do want go to different databases with different search requirement and interfaces. According to Wilson “Information behavior may be defined as the more common field of investigation, particularly concerned with the variety of methods people employ to discover”. However, different scholar gives us an idea and the most important one is the education system.

As stated earlier, there is always a need for conducting studies on user information seeking behavior on the part of the to update, modify and improve
their information systems. Further, the behavior pattern of the user also depends on the field of study or work of the use. For instance the information seeking behavior of the people in the field of science and technology would be different from those who work in the field of social sciences and humanities.

Scientific information includes the use of information by scientists and their contribution to the information of others. Researchers in science and technology are special group of information seekers and creators. They depend upon the information developed over many years by their predecessors in various disciplines as well as contemporary information. The primary goal of research is to extend the boundaries of knowledge.

Biological sciences play pivotal roles as science on the one hand and it deals with biology and provides explanation for the process of life on the other hand. It collaborates with physics and finds expiation for chemical phenomena in the fundamental processes and particles of micro-biology, bio-chemistry sericulture and bio-technology in the universe. In the way biological sciences links the familiar with the fundamental.

Therefore, the scope of biological is immense as it covers the entire material universe living and nonliving.

It affects our understanding of all that happens around us. In reality, everything is an object of study in biological directly or indirectly.
Research scholar uses information at different stages of research from selection of the topic to conclusion of research. Biological science scholar uses various types of publication like books monographs, reference books, journal abstracts along with the latest of information communication channels like the internet. They also gathered information by attending meetings, symposia, and conferences.

In the context there is a need to study the ISB of biological research scholars, particularly in the changing technological in the socio economic, political and technological environment, such a study becomes very essential.

Therefore, study on information seeking behavior of research scholars with particular reference to a prominent field like undertaken precisely to fill the gap by studying the information needs and information seeking behavior of faculty and research of scholar biological science departments. S.K.U. College.

1.10 RESEARCH OBJECTIVES:

The purpose of this study is to investigate the use of information by the faculty and research scholars in the biological sciences departments' specifically the study focused on the following.

i. To identify the mode of communication used by the faculty and research scholar in seeking information from libraries.
ii. To which purpose for which information is needed and gathered.

iii. To know the different means of obtaining information.

iv. To know the types of information needed.

v. To observe the sources most often used for their current information.

vi. To determine student awareness of the resources available to them.

1.11 HYPOTHESES OF THE STUDY:

The IBS depends on the specific requirement of the faculty and scholar. This includes why a scholar seeks information in the first place also how this information is acquired.

Based on the present study the following hypothesis are developed,

1. Rich awareness of resources positively affects the information seeking behavior of users.
2. Intelligent ability to access and use tools has positive impact on the information needs and information seeking behavior of users.
3. Strong educational and cultural background has positive impact on the information needs and information seeking behaviors of users.
4. The faculty and research scholar of biological sciences mostly depend on libraries of various universities for information.
5. The faculty and research scholars of biological sciences avail of and depend on more than one channel of the information sources.
6. There exists heterogeneity in the motives for information collection.
7. The faculty and research scholars are much satisfied with the resources of university library.
1.12 SCOPE OF THE STUDY:

The study covers use of information by the faculty and the research scholars in the biological sciences in the departments. This study has been limited to the S.K.University, Anantapur. This data is useful to understand the information needs of the faculty and research scholars and the present situation of collection of the central library, S.K.University, Anantapur.

1.13 METHODOLOGY:

The present study is related to use of information by the faculty and the research scholars in the biological sciences in the S.K.university. The focus of the study is biological faculty and research scholar who came to library to use library and its facilities.

The present study is based on both primary and secondary data. Primary data would be collected through adopting the questionnaire methods. The studies on “use of information by the research scholars in biological sciences” have been useful to scholar who utilized survey method using questionnaire as data collection techniques. A review of earlier studies reveals that the questionnaire methods have been effective in similar studies. Through the pilot study, the questionnaire was tested for its reliability, comprehensiveness, validity and effectiveness. Based on the pilot study, necessary commission and omission have been made in the questionnaire. After
making the necessary modification and discussion with subject experts, the final instrument was made more comprehensive and the same was be administrated. Personal interactions were also being arranged between the research scholar and the research supervision. The secondary data was collected from various books, journals and magazines relating to library sciences as well as information seeking techniques by visiting university library.

Since the focus of the study is information seeking behavior of research scholars, it is essential to establish access to information and this is most visible in libraries. The investigator selected research scholar who came to the library to use its facilities.

1.14 DATA COLLECTION:

The collection of data also varies from problem to problem. In the present study it is decided to use questionnaires method for data collection. It is the most popular tool used for effective collection of data.

1.15 DATA ANALYSIS:

The questionnaires were distributed to the respondents of biological sciences faculty and research scholars in S.K.University, Anantapur. The hypothesis was framed to fulfill the stated objectives. Statistics packages for the social sciences software packages has been used for the statistical analysis
through techniques such as frequency distribution, percentages analysis, liker-scale, chi-square test etc. depending on the data collected from the respondents.

1.16 CHAPTERISATION:

The whole of the study is divided into five chapters

**Chapter 1:** It presents introduction, definition of the topic and objectives, hypothesis, scope of the study, Methodology. Data collection and data analysis.

**Chapter 2:** It describes the growth and development of biological sciences Subject.

**Chapter 3:** The Review of literature on all aspects of “use of information by the research scholars in biological sciences” published in India and with proper citation has been made in this chapter.

**Chapter 4:** The data analysis has been carried out applying suitable statistical methods in this chapter.

**Chapter 5:** It describes the finding drawn from the analysis of the data. It offers suitable and relevant suggestions and suitable summary are drawn.


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