Subject: Library and Information Science

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Paper No: 04 Information Sources, Systems and Services

Module : 15 Information Users and their information needs: Category of information users and their needs

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<p style="text-align:center">Module 15: Information Users and their Information Needs</p>

I. Objectives

To know the meaning of user, User characteristics, Categories of information users, Information use and its problems, Information seeking behavior and information needs of different categories of users.

II. Learning Outcome

After reading this module, you will be able to:

- Identify an information uses a library,
- Explain the characteristics of users,
- Categorise users into different groups,
- Understand relationship of uses and information system,
- Describe information use in Library system,
- Know the concept of information needs,
- Identify various types of information needs, and
- Understand the need of user studies to provide effective information services.

III. Module Structure

1. Introduction

2. Information User: Meaning

    2.1 Characteristics of Users

        2.1.1 Individual Characteristics

        2.1.2 Stages in the Information Diffusion

        2.1.3 Environmental or Social Characteristics

        2.1.4 Communication Characteristics

    2.2 Categories of Users

3. Users and Information System

4. Information use in Library System

    4.1 Types of Information

1. Introduction

In a library and information system, the user occupies a key place. Although documents and librarians are the other two important components of a library, yet without the presence of users it is unthinkable to have a library or an information system. There are various types of libraries and information system, viz., from public libraries to academic libraries to special libraries, and all of them have different groups of users visiting their premises. The users visit these libraries primarily to obtain a particular document or someinformation on a particular topic. Although every user of information is a different person as he/she behaves differently while in library for information seeking yet all of them are categorized in some homogeneous groups while studying them.

In this module we will discuss the meaning of the library users, their characteristics and categories. We will also discuss the need for information user and the problems related to the same. Information seeking behaviour and information needs of different categories of users will also be explained.

2. Information User: Meaning

A library is a trinity of documents, staff, and users. A user, therefore, is an important component in an information system. The basic philosophy of librarianship puts the user at the centre around whom all the library and information activities revolve. Realizing the importance of the user, S.R. Ranganathan gave a highly prominent place to the user, as reader, in his Five Laws of Library Science. That is why delivering the right information to the right user at the right time in the right format gives maximum sense of satisfaction to the information professionals. It has, however, been observed that the routine activities in libraries and information systems do not give much scope to the staff for considering each user as an independent person. As a result, the user is relegated to the margins by none other than the service providers, that is, the information professionals. The librarians have always focused more on the documents than on the users who, indeed, are the nerve centre of the information system. In the communication of information cycle in a library and information system, users are generally placed as the last link or the last recipient of the information. Probably this is why some thinkers describe them as the end users of information.

Brophy states that the terminology used by libraries to describe their customers varies considerably. However, Ranganathan would have loved to call a user a 'Reader' in the context of library who visits the premises of library for reading books, journals, and other material of his/her interest. The term 'reader' had been extensively used in library literature ever since Ranganathan introduced it, and had been quite common also. But there was then scope for confusion in the term 'reader' between human readers and microform reader. But now it has been replaced with probably a more comprehensive term 'user' which is probably still preferred in most academic libraries. Another term 'patron', mostly used in American library management system, though now 'has crossed the Atlantic' and has made room in English vocabulary. Some prefer to use 'client', which, according to Brophy, has a connotation of professional relationship. In its broader connotation, and borrowing from general management, the modern approach reflecting the quality management suggests the idea of 'stakeholders' who feel that there are many groups of people who have a legitimate interest in what the library does. However, 'user' is considered as the preferred one of all these terms.

A user is thus referred to as a person who needs information which can be provided by specific library services. A user is also the one who is known to have the intention of using certain information services from the library.

According to Kenneth Whittaker, a user may be defined as a person who uses one or more library services at least once a year.

It could be further observed that a user visits a library for one or more of the following purposes:

- to browse through a collection of the latest arrivals in the library, current journals, and similar other documents;
- to seek a particular document for consultation or study in the library or borrow the same;
- to obtain the current references on a specific topic or bibliography of references over a period;
- to obtain factual information on a topic, event, activity, etc. through reference sources; and

- To obtain a photocopy of a journal article, a conference paper or a technical report; and so on.

From the above it may be inferred that a user is a person who utilizes the information resources, services, and products of a library and information system and derives desired benefit from them.

2.1 Characteristics of Users

There are some factors which may be called as characteristics of the users of information that may influence:

- their perception of the problem faced and their definition of needed information, and
- The specific ways they are most likely to use information.

Some of the characteristics of an information user, at an individual level, may be mentioned as follows. However, these may not necessarily relate to the information seeking behaviour of that user.

a. **Age**: It is one such characteristic that could explain the reading ability or use of information by a user or a user group.

b. **Personality**: This is another important characteristic of an information user determining his/her reading ability or use of information.

c. **Motivation**: It also determines the information seeking and use as to how much a user is motivated to put the information to a better purpose.

There is another point of view of looking at the characteristics of users of an information system as discussed below:

2.1.1   Individual Characteristics

Some of the individual characteristics that have attracted the attention of investigators of various user studies include the following:

i.   **Demographic Data**: It includes such variables as age, sex, nationality, etc.

ii.   **Social Status Data:** It includes income and economic aspects; status in a group; values; cultural traits; opinion leadership; cosmopolitanism; etc.

iii. **Psychological Data:** Such factors as behavioural traits and patterns; personality; intelligence; mental ability and conceptual skills;decision-making patterns; etc. are included here.

iv.   **Educational Data**: It covers level and subject of education; knowledge or skills in given topics; language proficiency in given subjects; etc.

v.   **General Work Data**: It includes place, type and subject of work; position; responsibilities and authority; work times, habits, requirements; etc.

2.1.2 Stages in the Information Diffusion

According to Saracevic and Wood, this aspect relates to the amount of knowledge an individual, or a group of users, has about a specific idea or innovation. Information needs at various stages are different, and therefore, information products and services have to be tailored for each stage. This might be possible only when the capabilities of the users are clearly perceived.

It may have such stages as the awareness about the existence of information; showing interest in furthering knowledge on the subject; attitude formation of users toward information; putting the information on trial for test and work; using and confirming the value of information and further implementation.

2.1.3 Environmental or Social Characteristics

This category of user characteristics, at individual or group level, includes such factors in the social system as the norms, situation, reference groups, etc. These do have an important effect on (a) individual behaviour, and (b) communication of information user.Social and environmental factors have been found to have great effect on how individuals act upon information. In order to precisely assess the information requirements of the user, it is incumbent on the information system designer/s to be fully aware of these factors.

Some of the factors which need to be considered while collecting data are:

   i.   unit characteristics as place of work, organizational pattern, products, services, etc.;
  ii.   social and cultural norms describing social values, cultural traits, attitudes towards innovations, etc.;
 iii.   political aspects showing political base, priorities, attitude, legal aspects, etc.;
  iv.   economic aspects describing income, incentives, constraints, productivity, projection, etc.;
   v.   population data including educational, demographic, occupational, etc.;
  vi.   International aspects giving comparative data from other countries and regions.

2.1.4 Communication Characteristics

Communication characteristics constitute those elements which are related to the use and diffusion of information. Some of these elements include: (a) information sources, (b) information structures, (c) information forms, (d) communication channels, and (e) information systems. These aspects need to be correlated with other characteristics.

2.2 Categories of Users

The main purpose of visiting a library, irrespective of its type, remains by and large the same, yet the users of one type of library are different, in respect to some characteristics, from those of another. The users of an academic library as well as those of special library are, rather a homogeneous group; whereas the users of a public library form a heterogeneous group.The users, therefore, are grouped into various categories on the bases of their educational background, intellectual level, and need for information. These categories may include students, teachers, researchers, scientists, engineers, doctors, managers, administrators, etc.

2.2.1 There are many ways of categorizing the library and information users. Ranganathan has categorized the users on the basis of various types of library services enunciated by him. These categories include the following:

i. **The Fresher**: The fresher, or the freshman, is the new member of the library. He/she should be initiated to the library, and introduced to the world of books and other documents containing various types of information. These users should also be informed by the librarian as to how to find various types of document and required information depending upon his/her reading interests.'

ii. **Ordinary Reader**: He/she is an ordinary person with demand for ordinary books, and ordinary services from the library.

iii. **Specialist Reader**: A specialist reader is one who specializes in a narrow field of a subject. His demand for books will also be specific and research oriented.

iv. **General Reader**: This is an assorted group of users which is not included in any of the above user groups.

In order to satisfy these four categories of library and information users, Ranganathan has suggested four types of services to be provided to them. These include:

- Initiation or Orientation,
- Ready Reference or Short Range Reference Services,
- Long Range Reference Services, and
- General Help to General Users.

2.2.2 There is another categorization of library and information users as suggested by Whittaker. He has classified user community on the basis of library services they generally make use of. It is as follows:

i. **General Readers**: This type of users generally concentrates on the use of light reading materials available in the library.

ii. **Subject Readers**: This category of users generally concentrates on the use of library materials available on a subject field of their interest.

iii. **Special Readers**: the users placed in this group are those having special information needs, and hence need some special library services. For example, there may be some readers with physical and/or visual disabilities who need to be distinguished while providing library services from the other type of users.

iv. **Non-Reading Users**: These are made up of sub-groups who make use of library materials, but not reading materials. A user, for instance, coming into the library just to borrow a video or audio cassette is an example of non-reading user.

2.2.3 According to Werner Kunz, information users can be categorized into four main groups on the basis of their approach to information in libraries. They are as follows:

i. **Potential User**: It is the one who needs information but may not be able to express information requirements properly, hence has to be provided specific library and information services oriented to her/him.

ii. **Expected User**: It is the one who is known to have the intention of using certain information services.

iii. **Actual User**: It is the one who has actually used an information service regardless of whether he/she has derived any advantage from it or not.

iv. **Beneficiary User**: It is the one who derives a measurable advantage from the information services provided by the library.

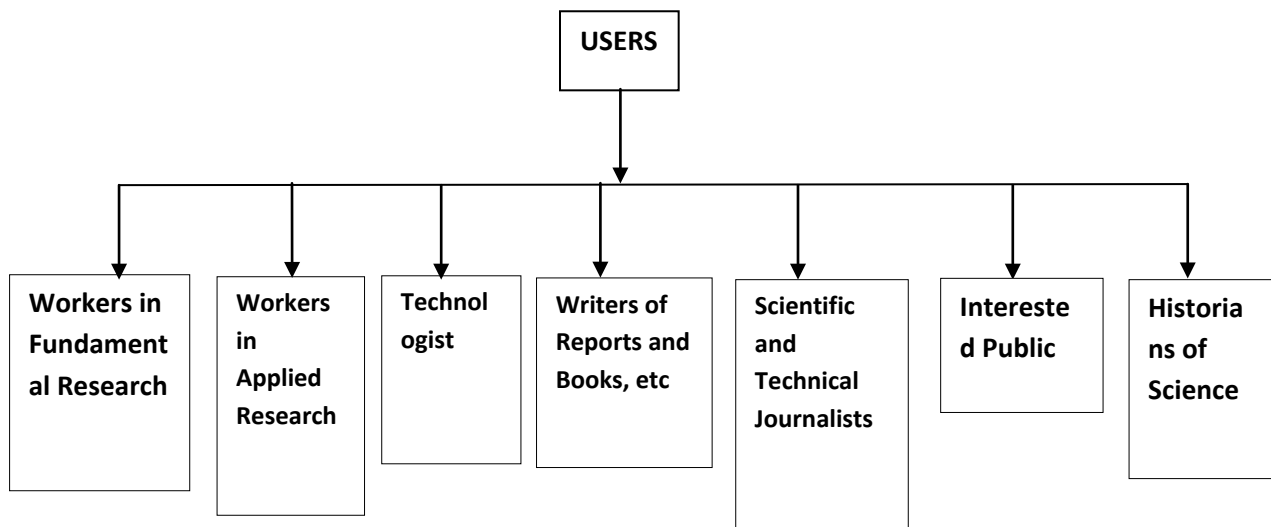**2.2.4** The grouping of users according to Prof. J. D. Bernal is shown in the figures below:
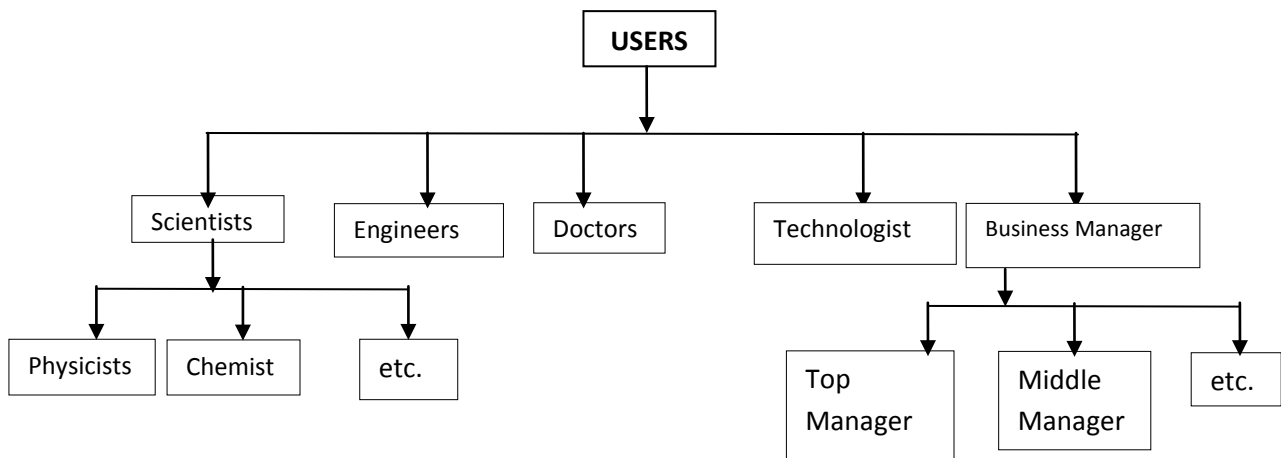

Fig. 1: Fundamental Categories of Users

Fig. 2: Professional Groups as Users Categories (Source: J.D. Bernal)

However, in addition to the above mentioned categories of information users, there also exist the following types of users, depending upon the type of library, who visit their premises regularly and seek more demanding information services.

a. Students

They constitute the largest number of information users in academic libraries, be it a school, or college or a university library. The student community, in the case of a university or an institute of higher learning, comprises of under-graduates, post-graduates, and M. Phil. as well as research students.

Most of the undergraduate students usually need adequate supply of text books as suggested by teachers or recommended in their curricula. In other words, their requirements for information sources are highly directed. During most of their study period in early years, they hardly go beyond the reading lists issued to them. They do not have sufficient time to explore literature for some advanced books on their respective subjects. Brophy rightly remarked in this context that: "Undergraduate students often lack the skill to make good use of libraries…" perhaps because they have never seen such a big library with so many books and other documents. They obviously need help from information professionals in the first few weeks.

Post-graduatestudents, being older in age than undergraduates, are more likely to have experience of using libraries and finding books and other documents. Although they also require recommended text books, yet they will be required to 'read around' their subject finding sources of information for themselves. Postgraduate students are more likely to be concerned with the latest advances in their field, and therefore, are likely tomake considerable use of periodical literature to supplement their studies. However, occasionally they also evince interest in reading general knowledge books, reference sources, and other literature that may enhance their reading interests. It may include books on fiction, biographical accounts of well- known personalities, and other literature for entertainment and knowledge enhancement.

b. Research Students

This category comprises of those users who have crossed the formal student life of education and after earning post-graduate degrees in their respective subjects, are now pursuing research at M.Phil. and Ph.D. level to make some new contribution to extend the boundaries of knowledge in a particular subject. Although these programmes require the students to undertake individual, original research they usually also include a taught course, particularly to cover research methods. They need ensured library support in search of the advanced information.

The doctoral students have been awarded fellowships/scholarships for pursuing research and make use of advanced information resources, including abstracting and indexing services, from the libraries. They would test the available information and knowledge on a given subject, verify, and if found valid, would formalize the same for further research. Research students, in their pursuit of new knowledge would require a variety of new information on scientific, social, political, economic, cultural, linguistic, etc. areas to keep themselves up-to-date. They may not only require use of electronic format of information such as CD-ROMs, databases and databanks, but also government publications, serial publications, reports, treatises, and so on. Academic

libraries may monitor these developments and prepare themselves to meet the practical situations arising from the new challenges in future.

c. Teachers

In an academic library, teachers are a very important category of information users.They may constitute the second largest group of users in terms of numbers who are expected to visit the library more often. Teachers in the universities have both teaching and research responsibilities. Although teaching and research are closely related, and the results of research are used to support teaching in the subject, teachers may differ in their requirements of information resources. Teachers also being concerned with education,may be interested in imparting values, attitudes, embodying knowledge, judgement, understanding and wisdom. To meet with these objectives, they need almost every type of information that concerns educational and research pursuits.

The faculty at the universities and colleges is distributed through the three traditional branches of knowledge, viz. the humanities, the social sciences, and the sciences. There are, therefore, three distinct patterns of information use by teachers, as described by Maurice Line. The faculty from the humanities and the social sciences has, by and large, similarities in their information behaviour. But the faculty from the science and technology subjects would like to have access to databases, current periodicals, etc. Further, the teachers are also engaged in research activities in order to contribute new knowledge to the existing body of literature on the subjects of their interest, hence they are more demanding, and require micro level information from the library system. They may value current awareness and alerting services from the library. They also appreciate the cooperative efforts of networks and consortia for resource sharing which enables them to use a broader range of collections. These efforts on the part of library and information system help create a vibrant community of teachers with intellectual freedom and optimism in the universities and colleges.

d. Scientists

Scientists, engineers, etc. constitute another category of the users of scientific and technological information. This group of users may be academicians engaged in teaching and research activities, or they may only be involved in research and development activities in an industrial environment. Pauline Atherton remarked that the work of this category of users must reflect the need for effective communication if it has to show the value of information. Voigt expressed the view that "…scientists refer to information sources mainly in three circumstances:

   i.   while getting current awareness of results both in their particular narrow field and the related disciplines;
   ii. in their day to day work, when they need some factual information- figures, methods, and designs; and
   iii. When embarking on a new problem or a project, as well as when competing it and writing about it, a retrospective search to identify as many published and unpublished sources on the subject as possible.

e. Professionals

This category of users is different from other categories in many respects, hence they have different information needs. This category includes such professionals as lawyers, judges,

doctors, engineers, etc. who have paucity of time but need latest information on their respective areas of interest. As they have to satisfy their clients, they need right information at the right time in right format.

The lawyers need to keep themselves in touch with the various laws, judicial verdicts, and case histories to ensure fair justice to their clients. In order to deliver judgements, judges also need to possess information about earlier verdicts related to a particular case.

Similarly, physicians cannot afford to ignore new developments in the field of medicine. Their up-to-date knowledge would be useful in treating the patients to their satisfaction.

Engineers also need latest information to keep themselves abreast of the developments in their area of interest. Their up-to-date knowledge will be certainly useful for the organization they are working for.

f. Policy Makers and Planners

Another important category of users is usually found in the non-research and development sectors. These include policy makers, planners, decision-makers, business managers, executives in government and non-government organizations, industrialists, small entrepreneurs, extension workers, and so on, covering the whole spectrum from highly educated to illiterate levels. These diverse categories of users also require diverse nature of information to meet their diverse needs. The information needs of some of the users such as planners, policy makers, managers, etc. would generally revolve round making plans, problem-solving and decision-making processes. They must be provided information in the areas such as engineering, manufacturing, marketing, financial administration, project planning and control, and so on.

g. Intermediaries and Communicators

In the rural areas, particular in developing countries, where people are characterized by low per capita income, low rate of literacy, inadequate facilities for sanitation and transportation, etc. there is need for intermediaries and communicators who could suggest about the facilities available through various type of information for rural development.For these intermediaries and other extension workers to function effectively, there is need for detailed information pertaining to appropriate technology, socio-cultural, geographical characteristics of the region concerned, and so on. It is incumbent upon the information system to provide them the appropriate information which could help them to achieve their goals.

h. Visiting Scholars

The visiting scholars and researchers from other colleges, universities, and other higher learning institutions constitute an important category of information system users. This segment of users may very well fit into one or the other pattern, as mentioned above, depending upon their specialization. They generally visit the information system for the known items not available elsewhere; hence they require further guidance from the information professionals for locating and getting photocopies of the required material or information.

i. Administrative Staff

They are the supporting staff working for the academic and other institutions. Their number is quite large in a university environment, but in a school or a college set up their number is not as large. Administrative staff is also working in large number in various government departments.There are various categories of users of information in government departments. They would carry out the jobs which are usually done in any office of an institution. They may need information from the library for their day to day work as well as for some rules and regulations. Those who prefer to visit the library of their institution may be looking for some light reading material such as fiction, biographies, local history, inspirational readings, information material, and so on. Some of them who intend to improve their educational qualifications may also look for some kind of text booksto help them learn more about the subject of their study. Again, some of the administrative staff members may prefer to improve their competencies and skills in a particular trade and find useful information for the purposefrom the library and information system.

j. Legislators

Legislators, Councillors and other public figures elected by the electorate for serving the society are an important category of users of library and information system. They may visit the library for current information on the burning issues which concern the society at large. Therefore, they need such information for discussing a point in the councillors' meeting, on the floor of the state legislature, or in the Parliament.

k. Users with Special Needs

The library and information professionals must not assume that all users can access library resources and services in the same way. Some users may have visual impairment, some may have physical disabilities, or some others may be disabled for some other such reasons. They should not be discriminated against education, and need to be provided equal access to the information resources, as those with motor disabilities need wheelchair in the library, and further need staff help to take books down from high shelves. They need to be given particular attention and therefore must be provided withspecial services in view of their information requirements.Library and information services may be specifically designed for them and need to be made accessible to them as they form vital part of the educational institution.

3. Users and Information System

These days, almost every user is a member of more than one library and information system. Faculty members and research students/scholars in universities and other institutions of higher learning usually do not restrict their membership to one library or information system. Their multi-library membership may influence in one way or the other their information seeking and gathering behaviour. But the cardinal point is that almost all library and information systems are designed without taking the users into consideration. This has been happening despite the fact that Ranganathan's Five Laws of Library Science revolve around the user and advocate to build an information system keeping in mind the users' information and service needs.

Before planning and designing the information system, say in a university, the authority, designer, system analyst, librarian, and the architect as the team members must take the user

needs and requirements into consideration. On the contrary, the experience as well some studies, show that the building team as well as the library and information professionals have been attempting ever since to mould the user to fit into the system they have designed and created. It has been further observed that the designers of information system, while planning and designing the information services, hardly make efforts toundertake any study of the actual and potential users' information requirements. The users, by and large, remain neglected and marginalized in this entire process of providing and monitoring the library and information services.

But if the information professionals, with their experience of daily contact with information users, provide informed assessment of user needs regarding documents, informational material, and services, the information system can be best designed around the users and would meet their requirements adequately. This is important because the major objective of an information system is to satisfy the information needs of its various categories of users. Further understanding of their information needs could possibly lead to a continuous improvement in information services relevant to all categories of users.

4. Information use in Library System

The present society is passing through a phase of exponential growth of information caused by various factors. It has led to phenomenal increase in the production of literature not only in science and technology but in social sciences and the humanities as well. But the nature and characteristics of information are such that it is regarded as an important and valuable national resource for development. As a result new tools and techniques have been developed for information storage, retrieval and dissemination so that it could be used to the advantage of all categories of users.

Information is both raw material as well as product in the information system as a whole. It is a raw material for all human activity processed to be used for social, economic, scientific, political, cultural development. Information has always been the product of different human activities and events undertaken by individuals and organizations to achieve specific objectives.

Information is generated through a number of communication channels, predominantly through printed media, viz. books, periodicals and mass media, such as newspapers, radio, television, cinema, etc. With regard to the printed media, the world presently is living in a state of what is termed as "information explosion". That is why this era is also called as the 'Information Age', and we are, perhaps, living in an 'Information Society'. It is a society in which, according to Bangemann Report on Europe and the Global Information Society, "the creation, distribution and manipulation of information has become the most significant economic and cultural activity with application of computers and telecommunications in many sectors of the economy".

Similarly, the flow of documentary information from the authors, creators, and senders of information to the various segments of users and receivers makes use of many channels and media, and some of them are already mentioned as communication channels which help in dissemination of information to the end users.

4.1 Types of Information

Various types and forms of information are recognized on the basis of different characteristics and nature of use and purposes for which it is used. Shera has categorized information into the following types:

i.   **Conceptual Information**: It relates to ideas, theories and hypotheses about the relationship which exists among the variables in the area of a problem.

ii. **Empirical Information**: It relates to data and experience of research which may be drawn from oneself or communication from others.

iii. **Procedural Information**: It is the data of investigation which are obtained, manipulated and tested. It is essentially methodological and it is derived from scientific attitude.

iv. **Stimulatory Information**: It is a type of information which is motivated by oneself or environmentally derived.

v.   **Policy Information**: It is focused on the decision making process.

vi. **Directive Information**: It is used for coordination and for enabling effective group activity.

4.1.1 Types of Information in Social Sciences

While using information in social sciences, it can be divided into the following categories:

i.   **Statistical Information**: It could be data on population presented in a tabular form. It is statistical information for an economist who may assess the demographic condition of the country from this data. He may interpret the datafrom his own point of view and publish a more useful paper which, in turn, may be information for the users.

ii. **Descriptive Information**: When a social scientist describes the changes that have taken place in, say, population over a period of time, it is called descriptive information.

iii. **Analytical Information**: This category of information is based on statistical information as well as descriptive information.

4.2 Use of Information

Information being a valuable national resource and precious asset, its value can be ascertained only on the basis of its use by the various categories of needy users as discussed above.

An information system being a facilitator of information, various types of documentary information is acquired to process and make available to its users. The basic philosophy of librarianship is to provide right information to the right user at the right time at the right place and in the right format so that the same may be used to complete successfullythe tasks and projects at hand.

There are many ways in which use of information obtained from an information system is made by the user community. The information requirements of users largely depend upon at least two factors, namely:

- the subject or topic on which information is required, and
- The purpose for which information is being sought.

A scientist, or a teacher, or a researcher, for example, seeks information relevant to his research field and would like to know what other researchers in the same field have been working on. But they may not be seeking the same information all the time; they may sometimes prefer to use information in raw form, while others, may prefer the processed and consolidated information. The information which keeps the users abreast of the current developments in their respective fields may be the primary information available in primary sources. They also need information, at times, condensed in secondary sources of information.

4.2.1 Improving Information Use

For improving the information use, the following factors may be taken into consideration:

- Arrangement of document collection, use of space, items of furniture and other equipment in the information system should possibly be user centred.
- Accessibility to information system is a key factor in determining the use of an information resource.
- Awareness about the system and its sources so as to be able to use them skilfully.
- Transmission of information through inter personal communication should be enabled easily.
- Designing of library and information services in such a manner so as to make it possible to provide information within the minimum possible time regardless of the availability of information.

4.2.2 Problems in Use of Information

In this age of information, the users of information are beset with several problems in their search for information required on subjects of their interest.Iyengar and Raghavendra Rao have identified some of these problems as follows:

- the vast quantity of information gathered as well as pouring into the system every day which have their own ways of presentation;
- increasing uncertainty of problems in expression of users information needs;
- the mechanics of matching information needs with information sources have been increasingly made efficient; such mechanics are sophisticated and complex;
- there is, therefore, a need for training users of information with respect to the ways in which information needs are expressed; new methods of searching and manipulating with the mechanics of information retrieval; and
- The modern concepts of user friendliness, user assistance and user education have developed several devices and courses to inculcate in the regular information seekers a methodology for productive approach for information gathering and self- education.

5. Information Needs of Users

5.1 Information Needs: Concept

An information system is established with the objective of satisfying the varying information needs of various categories of users as described above. The information professionals endeavour to acquire different documentary sources of information such as books, journals, monographs, conference proceedings, government documents, theses and dissertations, technical and other reports, and so on. They not only deliver these sources of information to the users but also attempt to supply specific information contained in these documents to meet with the user needs. The information professionals also strive hard to stimulate a greater awareness of information and information sources among the users.

Robert Taylor coined the term 'information need' in 1962, and discussed how an enquirer obtains an answer from an information system. Information need, therefore, is an individual or group's desire to locate and obtain specific information to satisfy a conscious need.

However, information needs of users vary with their educational background, work assignments, time, age, organization they work in, availability of technological facilities, and so on.Information needs of people working in academic institutions taking up basic research would be different from those working in applied research oriented institutions. The former would definitely prefer documentary sources of information, whereas the latter would attach less value to the recorded information sources. Again, looking at the information needs of people in management, it is evident that their needs are comparatively complex.

Thus information needs are:

a. closely related to the subject of interest;
b. type of activity;
c. level of sophistication of users;
d. Related to the purpose for which the information is needed at a given time.

5.2 Types of Information Needs

Broadly speaking, there could possibly be two types of information needs:

- One relates to current awareness type of information which the users require in their respective fields of specialization or study interest.
- The other is ad hoc information need which is required to satisfy a specific purpose.

On the other hand, Guha has identified four types of information needs with as many approaches. These are mentioned below:

i. **Current Approach**: The users require current information to keep themselves abreast of the nascent developments in the field of their specialization/interest. They can know through such an approach what other researchers and scientists are currently doing in their respective areas of interest. To keep them up to date the users can participate in seminars, symposia, meetings, interaction with colleagues through e-mails, Facebook,

LinkedIn, etc., sharing of reprints, reading current journals, scanning indexing and abstracting journals, and so on.

ii. **Everyday Approach**: This approach leads the users to seek some specific piece of information, say in the form of facts required in the day to day investigation. Such an approach towards need for information is related with the on-going research work when the user needs some data, or details of some apparatus, equation, etc. Such needs are satisfied through some ready reference sources, such as state-of-the-art reports, research-in-progress, handbooks, etc.

iii. **Exhaustive Approach:** This approach is followed by the user/researcher, usually at the beginning of a new work or investigation, to have comprehensive detailed information about a specific topic on the field of study. Such an information need requires the researcher to scan through all the relevant information available on the subject of research/investigation.

iv. **Catching up Approach:** The user/researcher here requires information pertaining to related subject fields to catch up with the latest developments in the subject in which he/she is not an expert. While searching the required literature the researcher may come across some pertinent information which he/she might have missed, had it not been for the accident of the search for another topic. Such catching up approach helps the user to get further stimulating ideas.

These approaches to information by theusers amply explain the differential needs of different categories of users. They need different set of information while working on a subject than while investigating another equally important problem. Similarly, one approach to information is more suitable for scientists than the engineers or the medical scientists. However, an information system attempts to assess users' needs and meet them as far as possible.

5.3 Factors Influencing Information Needs

As discussed above, information needs of users depend upon many factors. These may include, inter alia, activity, discipline, and availability of facilities in the information system and outside it. During his study on information needs and users, Paisley observed that the following factors influence the information needs of most of the users:

- the range of information sources available;
- the usesto which the information will be put;
- the background, motivation, professional motivation, and other individual characteristics of the user;
- the social, political, economic, and other systems surrounding the user; and
- The consequences of information use.

5.4 Assessing Information Needs

In order to design and establish an efficient information system it is important that all data related to the different categories of users are collected. Such data will, in all probability, help to

determine the specific subject needs of users. It will help to determine the type of documents and other reading material to be acquired in the library. It will also help to identify the information services to be provided to various categories of users.

5.5 User Studies

Information needs of various categories of users, as discussed above, can be assessed through user surveys or user studies. Such studies can bridge the gap between what information services the users are currently being provided and what are the actual needs of users.

5.5.1 User Studies: Definition

The available literature on user studies provides many definitions of the term. According to Wyoski user studies are concerned with studying information processing activities of the users. According to Britain, user studies are empirical studies of the use of, demand or need for information. From these and other definitions it can be said that users studies are focused on users to understand directly or indirectly their information needs, use behaviour and use patterns. User studies are systematic efforts to study the information needs of users, how they obtain information from information system, and the manner in which information is used by different categories of users.

5.5.2 User Studies: Need

Library and information system design their information services for satisfying the information needs of the users, hence these are usually user-centred. While designing and developing a new information service, it is imperative for the librarians/reference librarians to assess the information needs and behaviourof the users, and the different ways of attaining such knowledge to design and develop user-oriented information system, services, and products. Thus, there arises need for a user study to improve the sources and services of the library as mentioned below:

- to identify the actual strengths and weaknesses of library and information resources and services;
- to identify the levels and kinds of user needs;
- to determine the priorities for information resources and services of various categories of users;
- to identify the limitations and problems which seem to discourage the use of library and information system;
- to identify the level of involvement of users in the library programmes;
- To improve the organization and planning for library and information services.

5.5.3 User Studies: Objectives

- to know the limitations of information system and services;
- to exploit information resources fully at least cost and effort;
- to enhance the quality of information resources;
- to design and develop need-based and user-oriented information services and system;
- To provide effective and efficient information services.

5.5.4 User Studies: Methods/Techniques

A number of methods or techniques are available for conducting user studies. However, the following two types of methods are more popular among the researchers:

i.   Direct Methods
  - Questionnaire Method
  - Interview Method
  - Observation Method
  - Diary Method
  - Operations Research Method

ii. Indirect Methods
  - Citation Analysis
  - Analysis of Library Records

iii. Other Methods
  - Feedback Method
  - Unconventional Methods

A detailed description of all these methods may be available in some other Modules. It may however, be mentioned that the selection of method for conducting user studies depends upon the objectives of the study. The following aspects need to be considered for selection of methods:

  - selection of a sample of user population;
  - determination of procedures for collection of data from the sample;
  - Determination of procedures for analysis of collected data to derive results.

It is obvious from the above discussion that user studies have a significant role to play not only in determining the information needs of various categories of users of an information system but also in helping to improve its information sources and services. On the basis of the user studies, library and information system can be tremendously improved upon by making it user-friendly and thereby benefit the end users.

6. Library and Information Services

After knowing the Information needs of different categories of Information users through user studies, it is incumbent on library and information centres to develop and provide appropriate information services to various user group. For this purpose, libraries have been acquiring, processing, organizing and making available their collection. The modern libraries have gone many steps further and are now developing and providing various types of library and information services to meet user's information needs.

In response to various queries of the users, libraries generally provide the following types of services:

i.   **Reference Services:** It is personal service provided to users by making available requisite information or even a document containing needed information.

ii. **Literature search:** Library professional conduct literature search for the user and compile a subject bibliography on demand in anticipation of the demand, such service is provided on the occasion of a seminar, Conferences, workshop, etc. to provide the latest literature on the subject.

iii. **Document Delivery Service**: User can request for a document for a from the library which can be supplied to them either by lending only or by duplicating, pay a journal article, If it is not available in the library collection it can be borrowed from another library and given to user, nowadays, information communication technologies are being used for the supply of a documents to the user.

iv. **Referral services:** In these services, User is not given information but direct them to the sources of information. These sources of information may be specialist or experts working in other institutions.

v. **Current Awareness Services:** These services are designed to make users aware of the latest development in their field of internet. It could be provided through current awareness list, content by-journal-service, Selective Dissemination of information and so on.

vi. **Indexing and Abstracting Services:** In indexing services the bibliographical details of the document is provided so as to identify the subject and know about it. In Abstracting services, in addition to the bibliographical details the contents of documents are analytical and an abstract is provided for user benefits.

vii. **Digest Services:** This service services is prepared after evaluating, analysing and consolidating the information.

viii. **Web-based Services:** The Modern Libraries and Information centres are making use of internet and web technology to approach the young users. Libraries are offering access to databases, access to e- journals, OPAC, Library website, etc.

7. Summary

In this Module attempt has been made to explain and define the concept of a 'User' of a library and information system.It provides various synonymous terms of user and their implications. Library and information systems are designed and developed to meet with the information needs of all categories of users. Users being the focus, all the library and information activities revolve around them.It describes, in detail, different but important categories of users visiting the library and information system for seeking different types of information on the topics of their interest.In order to provide an effective and efficient information service, it is incumbent upon the librarian to study the users before its designing. In this context, emphasis is to conduct user studies to determine the actual information needs of users on the basis of some methods.

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