INFORMATION NEEDS AND USERS

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The information needs of the users are of central concern to providers of information service. The ultimate aim of any information retrieval system is to supply and deliver the information which can precisely match the information requests or requirements. It is beyond doubt that the success of the information service is more likely to be achieved by adjusting the services to meet the specific needs of an individual rather than trying to match the output of the information systems.

There is no field of human activity where information is not a component. Whether it is research and development, business and industry, 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 right quantity. Information is for use. It is capable of converting natural resources into artefacts and consumable products. Information generation, dissemination, transfer and communication takes place between people through channels and media in a variety of contexts & environments. In other words individuals have to operate in an information communication environment of their own. Hence a fairly accurate assessment of information needs of users has to be made because this will alone form the basis for all information activities. The information needs of users has to be assessed for the effective provision of information service meeting their needs.

The information handling activities are to be based entirely on the needs of the users. The user categories have different needs for information depending upon their functions, responsibilities and duties. The user groups include government officials, legislators, parliamentarians, industrial entrepreneurs, researchers, lecturers, students, skilled workers in various sectors of production, grass level people and the general public. Information needs 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 behaviour in gathering information, expressed needs of information, gaps in information supply, types of information requirements to meet variety of use has become the focus of study today.
Information and Its Users

Information function exists at all because there are users whose needs must be satisfied. This need must be assessed and determined. There are number of synonymous terms to represent the concept of user such as patron, clients, member, customers etc. The user is an important component in any information system. Almost every one and every one at one or the other time makes use of information and hence they are all users. Users are the important link in the information communication systems. The information systems exists to satisfy the information needs of the users depending on the extent of use of information.

In the past, information systems were planned and established without any empirical examination of:

i. Definition and characteristics of potential users.
ii. Communication behaviour and information needs of potential users.
iii. The information diffusion and dissemination strategies for the new system.
iv. Strategies to facilitate user feedback and system modification.

In brief it may be said that the user as an essential component of the information system is the most neglected item of attention. The information system has to take into consideration the information requirements of potential users. The potential user may be defined as those who would provide a high volume and reasonable frequency of use. The use of information by user may occur without demand being expressed or even without a want being felt. Most of the information services are offered in anticipation of users demand rather based on their actual information need.

The way in which users (may be a scientist, engineer, technologist, manager, planner etc.) make use of the information system at their disposal, the demand that they put to them, the satisfaction achieved by their efforts and the resultant effect on their further work are among the items of knowledge which are necessary for the wise planning of information systems and service aimed at satisfying their needs.

The information seeking behaviour i.e. strategies and action undertaken to locate discrete knowledge elements varies from one user group to other user group. A user group may be an end user. Thus the study of the user's seeking behaviour has become essential to explain the observed phenomena of information use; and the improvement of the utilization of information through manipulation of essential conditions. The new information & product should be matched with the user's need. The system has to direct the supply of information more specifically towards the identified category of users and adapt the infrastructure of information services to the abilities and habits of the user. The attention has to be directed from technology to the end user.

The analysis of the definition of the Information Science setforth by different specialists, reveals the 'user of information' has been invariably emphasised. According to Wilson, the Information Science comprises of sets of practices and related disciplinary studies, wich is concerend with the transmission, organisation, storage and use of information together with studies of user of information. The human is the ultimate information processor and user of information. We need to provide a service that identifies the user needs and helps to meet them. The information professionals must learn to identify the true information
needs of our society. He must learn to cope with dynamic rather than static information needs.

According to Wersig, Information Science is based on the notion of information needs of certain people and concerned with the study of methods of organisation of communication process in a way which meets these information needs. This subject is concerned with the organisation of communication processes aimed at information for specific clientele. Belkin and Robertson have reiterated that information science is a problem oriented discipline concerned with the effective transfer of desired information form human generator to human user. According to them, Information Science can be defined as that set of principles and prescriptive rules dealing with organisation, maintenance and management of bodies of scientific technical and business information used in decision making. It is concerned with improving communication of recorded information among three types of individual or groups: (i) the originator of information (ii) the processor of information and (iii) the user of information.

**User Identification and Function**

The person who is actively seeking access to knowledge/information and who when successful, obtains and uses the knowledge/information is described as a user. User can be grouped by subject/discipline or by the type of activities. There are differing user needs for various category of users. If information is both a process and a commodity, and humans are involved in both, then the service that supports these functions should in fact have the capability of aligning both towards the achievement of maximum user satisfaction. The user functioning encompasses a sequence of activities which relates to either symbolic cultural objects or to their bibliographic surrogates. When the users access seeking is successful, sought objects or surrogates are obtained and then used. The users functioning on the basis of general systems theory can be diagrammed in the following ways:

<table>
<thead>
<tr>
<th>Search access</th>
<th>Bibliographic record</th>
<th>Symbolic cultural objects</th>
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</thead>
<tbody>
<tr>
<td>Search access</td>
<td>Select</td>
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<td></td>
<td>Bibliographic record</td>
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<td>Obtains</td>
<td>Symbolic cultural object</td>
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</tr>
<tr>
<td></td>
<td>Bibliographic record</td>
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<tr>
<td>Use</td>
<td>Symbolic cultural object</td>
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The term culture encompasses ideas and values internalised by persons operating in their human groups and the product of behaviour & actions which take form of symbols and artefacts. The habit of the individual needing information, the importance placed in getting it, the facilities available for seeking it, the knowledge about these facilities, the judgement of their values, the estimate of the probability of getting what is wanted- all of these factors may effect the information seeking behaviour of the user.
The difference between users tend to be related to whether they work in the chain of scientific discovery, technological innovation & adoption or diffusion of innovation. The service must anticipate, match and be responsive to the needs of the users.

**Concept of Information Need**

The objective of studying information need may be:

i. Explanation of observed phenomena of information use or expressed need; or better yet,
ii. The prediction of instances of information use; or better yet
iii. The control and thereby improvement of the utilization of information through manipulation of essential conditions.

The information need (need for information) is a factual situation in which there exists an inseparable inter connection with 'information' and 'need'. Information originates and generated because there exists a need or an interest. The content of information is of primary concern. The information objectively necessary for realising a function is the objective information. Such information need of users have to be satisfied. It may be emphasised that information need is a objective need i.e, they are oriented towards reality, practice and task. Need is want of something, which one can not well do without. The literature reflects the critical lack of exclusivity. Looking to the different aspect of need, it can be said that information need is a condition in which certain information contributes to the achievement of a genuine purpose. Information need is a relationship which obtains between information and information purpose.

**Basis of Information Need**

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

According to Derr, 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. There are two necessary conditions of information need:

i. The presence of an information purpose
ii. The information in question contributes to the achievement of the 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 judgement about the user's information purpose. The judgement is required to see whether the information in question contributes to the achievement of the information purpose. Idle curiosity may not be a legitimate reason for information need. The attribution of information need requires the making of value judgement. The conclusion that a
individual or organisation has a purpose for certain items of information is a value judgement. The attribution of information need inextricably involves making of value judgement with respect to the implicit information purpose. Further the judgement as to whether the information in question, contributes to the achievement of the designated information purpose is a straight forward factual judgement.

The information need may be expressed as a input-process-output model. The basic component of the system are: (i) Problem (ii) Problem solving process (iii) Solution. The problem is analysed to determine information need. It is indicative of the uncertainty in knowledge. Solution results in resolving of the situation by filling the gaps in the knowledge.

**Factors Effecting Information Need**

Information needs are effected 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 & economic systems surrounding the user.
   
   v. The consequences of information use

**Information Seeking Behaviour**

In order to satisfy the information need, the user actively undergoes the information seeking process. The attempt of the user in obtaining the needed information results from the recognition of some need, perceived by the user. The following process takes place in the information seeking behaviour:

i. Identifying objective
   
ii. Defining need
   
iii. Accessing information systems
   
iv. Establishing sources of information
   
   v. Information acquisition
   
   vi. Use of information
   
   vii. Satisfaction/ dissatisfaction

Thus information seeking behaviour essentially refers to the strategies and actions undertaken to locate discrete knowledge elements. It can be said that the behaviour which yields the highest information satisfaction is the best.

Information use studies over the years have attempted to explain information use phenomena to understand information use behaviour and improve information use by manipulating essential conditions. The information seeking behaviour results from recognition of some need experienced by the user. Over the years there has been a change in
the understanding of the use behaviour. More recently Wilson in the model of factors influencing the needs and information seeking behaviour opines that the full range of human personal needs, such as physiological, affective and cognitive needs are at the root of motivation towards information seeking behaviour. Belkin has extended the psychological approach with the inquiry into the reasons for seeking information and development of the concept of an 'Anomalous state of knowledge (ASK)' which hypothesises that information need arises from the recognised anomaly in the users state of knowledge concerning some topic or situation and that in general, the user is unable to specify precisely what is needed to resolve that anomaly. Information seeking behaviour is seen as related to some problem situation in the relationship between the user and users model of the world. Wersigs concept of the problematic state depicts internal models of knowledge, beliefs, goals environment and situation as forming the basis of information need & information seeking behaviour. The best way to view information behaviour is to treat it as an aspect of human behaviour in general.

Ching Chih Chen have remarked that the information seeking pattern of an individual are a determinant of that individual information environment, which consists of:

i. Background and characteristics of the individual.
ii. The nature and type of information need with which he/she is confronted.
iii. The type and availability of information providers.
iv. Information providers capability in responding to a request.
v. Existance of bariers that serve to diminish or deter the effective linkage between information provider and seeker, and
vi. The degree and satisfaction perceived by an individual with the ability of one or more information providers to respond to his/her information needs.

The information use is that seeking behaviour that leads to the use of information in order to meet the individual needs.

**Conclusion**

User studies, use studies, information need studies, information transfer studies, information dissemination and utilisation studies, user research etc are closely related & often not precisely defined. The terminology depends much on the approach and angle from which one sees. User component will have bearing on almost all aspect of library and information system. The enquiries about users with a need to understand their characteristic features, needs, preferences, practices, opinions, attitudes, behaviour evaluation etc with respect to library & information services that are offered or likely to be offered or need to be offered. The ultimate aim is to help designing, altering, evaluating and improving efficiency and effectiveness of library & information systems and their products/service in meeting their predetermined goals. The study of users and their information need help in discovering (i) characteristics, (ii) information needs, (iii) behaviour, attitudes, opinions, priorities, preferences and evaluation of users.

The selection and reception of information will depend upon the individual conception of his own needs; one man's information is another man's noise. Studies relating to information needs have categorised needs as perceived needs & actual or idealised needs, continuous needs, immediate needs, deferred needs, regular and irregular needs. Further information needs could be unexpressed or expressed/articulated, felt or unfelt, dormant.
or delitescent. In addition information needs of users can be expressed in terms of time (i.e. urgency), content or amount or quantity of information. Accordingly information needs have been classified as needs for single facts or exhaustive information, technical or business information. However information needs are frequently determined in terms of kind of message i.e. nature and type of information, the types of document embodiments of information needed and the purpose of use. Very few studies have investigated and focussed on the need for substance or nature of material in terms of characteristics of texts.

The need for looking at research and practice and education for librarianship as an integrated learning system has to be emphasised for development of an academic discipline and achievement of excellence in professional practice. Hence unless appropriate and sufficient research is conducted, the library community will not be able to transform itself but will be absorbed by other groups that will take over the information function in society.

It can be summed up that to serve better, information needs and users must become the central focus of system operation. It should be clear that the success of information service is more likely to be achieved by adjusting the services to meet the specific needs of an individual rather than trying to adapt the individual user to match the whole sale output of an information system. Information need can be sequenced into substance versus channel dimension. There is lack of operationally meaningful hypothesis. As a scientific discipline the study of information needs and users is still in its infancy. Finding a conceptual framework for research has been a continuing theme.