CHAPTER-II

CONCEPT OF INFORMATION AND COMMUNITY INFORMATION
2.0. Introduction

Information is one of the several basic resources that needed and utilized by human beings for their development and prosperity. Information has now become a vital resource. The world has now moved from the industrial revolution into the information revolution. The dependency on information in every sphere of intellectual activity has increased day by day. Information is an aggregation or processing of data to provide knowledge and intelligence. Information is power which plays a vital role in the development and progress. It is, therefore, necessary that the information generated at any point be procured, organized and disseminated expeditiously to its users for its optimum use.

We are living in the midst of an era of change, where new technologies are emerging very fast with pervasive effect. From socio-economic development point of view of a nation, the scientific information is an indispensable resource. The supply of correct and precise information in time helps the policy makers in making maximum use of the available resources as also in avoiding duplication of the work. Similarly a research and development programme can be accomplished
successfully only if the required information becomes available as and when it is needed. Without proper and complete information no worthwhile decision can be taken. In fact, no progress is possible without the support of information².

We speak of today’s age as being an ‘information age’. An era where, information has become the most important aspect of today’s social development. As social development depends on the standard of living of that particular society, the cause affecting factor for uplifting the standard of living is the participation of that society in socio-economic development work, as it is the only means which can study the existing situation and analyse what is required and put forth a concept or formula which when adopted or utilized, produces better results³.

2.1. Information

The exact nature of information is not easy to be described. To Wilson and Wilson⁴ (1965) information is the “capacity for increasing knowledge” and to Bontell⁵ (1968) it is a “significance derived from the data”.

Webster’s Third International Dictionary defined information as⁶:

[a] Facts or figures ready for communication or use as distinguished from those incorporated in a formally organized branch of knowledge.

[b] The process by which the form of an object of knowledge is impressed upon the apprehending mind so as to bring about the state of knowing.

The definition of information as a transfer of data through processing⁷ is illustrated in Figure 1.
Data $\rightarrow$ Processor $\rightarrow$ Information

**Figure 1. Information**

*[Source of Figure: PRABHAKAR (L). Management Information System in Some North Eastern Universities. Manipur Institute of Management Studies, Manipur University, Ph.D. 2002. (Unpublished)]*

2.1.1. Information Need

Information generation, dissemination, transfer and communication take place between people through diverse channels and media, in a variety of contexts and environment. In order words individuals have to operate in a 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 primary basis for all information activities. The information need of user groups has to be assessed for the effective provision of information service meeting their needs.\(^8\)

According to Girja Kumar \(^9\), the information need may be expressed as input-process-output model. The basic components of the system are [a] problem; [b] problem solving process; and [c] solution. The problem is analyzed to determine information needs. It is indicative of the uncertainty in knowledge. Solution results in resolving of the situation by filling the gap in the knowledge. The model set forth by him can be illustrated as below (Figure 2).

\[
\text{Input} \rightarrow \text{Process} \rightarrow \text{Output} \\
\text{Problem} \rightarrow \text{Problem solving process} \rightarrow \text{Solutions} \\
\text{Information Needs} \rightarrow \text{Search Process} \rightarrow \text{Information Needs Fulfilled.}
\]

**Figure 2: Information Need**

2.1.2. Classification of Information Needs

Based upon the information seeking behaviours, needs have been categorized as: [i] immediate or [ii] deferred or distant. Further, depending upon the stage of activity, types of needs can be identified more effectively. Normally, two types of information needs are identified. These are: [a] Implicational needs which are primarily concerned with finding answers to specific questions, or problems, and [b] Nutritional needs which are more concerned with maintaining the general competence of the individual matter than the needs proper. 10

2.1.3. Production of Information

The production of information implicitly requires a user the one who identifies the information needed and uses it. After the information is used, it may again become data which, along with other data, is represented and the cycle of information production continues. This cycle is depicted in the block diagram of figure 3. One could consider the start of the cycle, the oriented data [box1] that is checked and edited [box2]. If necessary, the data is modified to ensure that it is complete and has no apparent errors and inconsistencies. The data is then processed [box3] and information is generated [box4], and then it is sent to the user [box5]. The satisfaction and dissatisfaction concerning this information is then fed back, which may modify the needs for information [box6]. The modified needs for information then determine the new data [box7], which is used for the next cycle of reprocessing, again with the checking and editing [box2]
Figure 3: Production of Information

[Source of Figure: PRABHAKAR (L). Management Information System in Some North Eastern Universities. Manipur Institute of Management Studies, Manipur University, Ph.D. 2002. (Unpublished)].

The modified needs for information [box 6] also affect the instructions for processing [box 8] which in turn determine future processing. The information once generated [box 4], in addition to being sent to the user [box 5], also becomes part of the data [box 9].

2.1.4. Factors Affecting Information Needs

Information needs is a mere psychological and environmental attribute confined to the users. As normally human needs are cropped up by certain circumstantial factors, information needs are also affected by certain factors.

Paisley found the following potential factors that affect information needs to a great extent:
[i] the range of information sources available; [ii] the uses to which the information will be put; [iii] the background motivation, professional orientation and other individual characteristics of the users; [iv] the society, political and economic systems surrounding the user; and [v] the consequences of information use.

2.1.5. Approaches to Information Needs

The literature on information needs and users covers the fundamental terms in a different phenomenon; Dervin and Nilan have enunciated the following six basic approaches to information needs:

[i] Research needs; [ii] Awareness approach; [iii] Like-dislike approach; [iv] Priority approach;

[v] Community Profile approach; and [vi] Interests, Activities and group Memberships approach.

![Diagram of Approaches to Information Needs]

**Figure 4: Basic Approach to Information Needs**

[Source of Figure: Dervin (B) and Nilan (M). Information Needs and Uses. *ARIST*. 21; 1986; 3]

2.1.6. Barriers to Information Communication

Precise timely and reliable information is vital both for the development of the individuals and the society at large. Correct, comprehensive and conveniently usable information help an individual to plan his work properly and execute it timely and manage his affairs systematically.
Any barriers to the access of information will prevent proper communication and information flow causing problems for the users. The barriers in the free flow of information communication can be grouped in the following categories.

2.1.6.1. Institutional Impediments

[i] status; [ii] hierarchical structure; and [iii] lack of government recognition.

2.1.6.2. Financial and Economical Factors

[i] rising costs in production of documents; [ii] postal and other transport changes; [iii] costs in running libraries and information centers; [iv] currency exchange and import controls; [v] dwindling budgets; and [vi] royalties.

2.1.6.3. Technical Impediments

[i] poor preservation of documentary products; [ii] less number of copies; [iii] lack of special equipments; [iv] lack of awareness or ignorance; [v] under-qualified staff; [vi] proper organizational structure; and [vii] bibliographic control.

2.1.6.4. Language Barriers

An UNESCO study estimated that approximately 50% of the total world’s literature is published in English language. 20% in German, 15% in French and 10% in the Russian languages. It is very well known that users of information are not particularly equipped to deal with foreign language material. This type of hindrance in the flow of information communication is very enormous. In 1947, the special libraries association of USA established a center to exchange and start
translation of published documents in desired languages. Besides, exclusive translation center at National and International level include NTC (National Translation Center), ITC (International Translation Center), ASLIB, INSIDOC, DESIDOC. The Jargon, which includes free and fluent use of terms to represent the result, is again major barriers in free flow of communication of information\textsuperscript{14}.

2.1.6.5. Social & Psychological Barriers

[i] weariness and reluctance to cooperate with information specialists; [ii] unwillingness to accept the changes; [iii] unhappiness over disciplines and procedures; [iv] question of prestige, shyness, ignorance and mistrust; and [v] difference with regard to philosophical social and cultural stem largely from differences in ideologies as well as legal principles i.e. the right to freedom of opinion and information\textsuperscript{15}.

2.1.7. Information Channels/Channel of Information Communication

Today, information — communication plays a vital role in the present day information society with the advancement in Science and technology, communication of information is gaining its importance. According to Khan\textsuperscript{16}, the channel of information communication medium in popular use, have been described below:

[i] oral communication; [ii] verbal communication; [iii] audio-visual communication; [iv] mass media of communication; [v] satellite communication etc.

Communication is the process of transmitting the idea generated by the human mind, following an event or fact. It is an essential component, as without proper communication, information can not reach its defined destination.
Further, Information-communication channels can be classified according to their forms as follows:\(^7\).

![Figure 5: Information Communication Channels](image)


2.2. **Community Information: Concept**

Like any other socio-cultural concept, the concept of Community Information (CI) is easy to understand but hard to define. Unfortunately Community Information inherits some of the vagaries of two component terms—community and information. Community services have existed in India since the inception of Gram Panchayats, but the term Community Information Services (CIS) is of recent origin and may have its roots in the west.
Community Information (CI) may be defined as information for the problems and crises encountered by individuals and their independence at different stages in their lives. It is the information for self-reliance and self-determination. It is the information in the community for the community.

According to Allan Bunch, who first attempted systemization of CISs, the CI may broadly be divided into two groups:

i) Survival information such as that related to health, education, housing, incomes, legal protection, economic opportunities, political rights, civil rights etc.

ii) Citizen action information, needed for effective participation as individuals or as members of a group in the social, political, legal, and economic process. It includes basically public policy information such as information about the government, and its operation, programmes, plans, schemes, activities, agencies etc. This information at the local level and trans-local level will help community development.

UNESCO Public Library Manifesto, 1994 provides new guideline for public libraries as community information centre. While proclaiming UNESCO’s belief in the public library as a living force for education, culture and information, the Manifesto, asserts that the public library is the local centre of information, ensuring access of citizens to all sorts of community information 18.

2.2.1. Concept of Community

The concept of “Community” and its connections to different social networks has seen countless analyses and critiques. It can be seen in two contexts: First, the reality of “Community” as is alive and working experience where community and physical community overlap exist (as in rural areas). Second, the reality and significance of neighbourhoods, ethnic and cultural associations, and
professional interests among others remain central preoccupations and frameworks for social meaning and social action (as in urban areas).

Thus “Community”, as people coming together in pursuit of their common aims or shared practices both physically and electronically- enabled, proliferates even while their “researched” reality remains in considerable dispute.\(^{19}\)

Simply, a Community is a group of people who interact and share certain things as a group. Many factors may affect the identity of the participants and their degree of adhesion, such as intent, belief, resources, preferences, needs, risks, etc.\(^{20}\)

There has been a recent surge of interest in meeting the everyday information needs of ordinary people. More especially that interest has focused on groups within society who are considered to be socially and economically disadvantaged. The term that is used for information services which are provided to meet their needs is “Community Information”\(^{21}\)

The Community Information (CI) is equally important in the present day information oriented society. In regard to community information, there is a need to comprehend the size and type of users to be served; and it is not an easy task. In a state with a predominantly rural population like Manipur, the number of non-users, especially at grass root level should be enormous. In other words, the deprived groups of users of information in our state may cover almost the whole of the population. Lack of extension work and of knowledge of existence of extension services and communication/information networks as well as paucity of community information sources in appropriate form and content are the main reason for non-use and non-familiar of community information \(^{22}\).
2.2.2. Community Information as Social Transformation

To use Ranganathan’s terminology, whether information is Umbral (U), Penumoral (P) or Allen (A) to the community. The Umbral position of information affords it the central place in the Kaleidoscope of the society; Penumbral status puts information at the periphery yet vital position in the society; with Allen status information is just around to be availed when desired. This can be illustrated with the help of pictorial model given below:

![Diagram showing the model of community information as social transformation.]

**Figure 6: Model 1. Community Information as Social Transformation**


In the first model, the information is at the outer periphery, with a very marginal role play in the society; in the second model, no activity is performed in the society without access to information. Needless to say, the first model is a caricature of an under-developed society, the latter is the presentation of an information society, the epitome of development.
Figure 7: Model 2. Community Information as Social Transformation


The present divide between the North and the South, between the East and the West, between the rich and the poor, between the developed and the developing, is based on the status that information enjoys among various communities. The information rich are materially rich; the information poor are materially poor. It is not the natural resources, it is not the industrial infrastructure, it is not even the manpower potential of a country that makes it rich, it is the information resources that endows it with power, with other resources²³.

2.2.3. The Search for Information about Community Needs

The availability of information about community needs is a growing concern for many professions and public agencies. It is the purpose of this section to examine the approaches to community needs being advanced by various disciplines and to relate them to the philosophy and the practices of the library profession. The examination is used on the identification of the needs of the organized and the unorganized segments of society and on the community search for leaders²⁴.
Time-tested aids used by many agencies, including libraries, in the recognition of the needs of organized groups include: [i] community studies; [ii] discussion groups and town/rural meetings; [iii] clearing-house files of data on organizations, their objectives and programme; [iv] affiliation with coordinating councils; [v] cooperation with and use of area communication media: newspaper, TV, and radio stations; [vi] programme planning institutes and leadership training courses; [vii] staff participation in diversity of organizations; [viii] assignment of staff as institutional and group resource people; and [ix] involvement in adult education programming. 

2.3. **Information System: System Concept**

System concepts and techniques aid management in developing and maintaining an effective framework of systems and procedures to satisfy the specific needs of the organization. To Carl Heyel, "A system is an orderly arrangement of interdependent activities and related procedures which implement and facilitate the performance of major activity of an organization".

More specifically, one can define a system as being an assemblage or combination of things or parts forming a complex or unitary whole to produce information according to a plan.

The pattern of information system will normally depend upon: [i] the size of the organization; [ii] nature and urgency of the subject matter; and [iii] the need for details of the subject.
Figure 8: Flow of Information

[Source of Figure: PRABHAKAR (L). Management Information System in Some North Eastern Universities. Manipur Institute of Management Studies, Manipur University, Ph.D. 2002. (Unpublished)].

The generic concept of system, which is widely used in the information system discipline, is as follows:

A system is a group of interrelated components working together towards a common goal by accepting inputs and producing outputs in an organized transformation process.

2.3.1. Components/Functions of a System

A system has the following three basic components/functions:

[i] Input: this involves capturing and assembling elements that entered the system to be processed

[ii] Processing: this involves transformation process that converts input into output.

[iii] Output: this involves transforming elements that have been produced by the transformation process to their ultimate destination.
2.3.2. Information System

An information system (IS) can be viewed as a system that accepts data resources as input and processes them into information products as output. It may be defined as a Community and Community Information System.\(^{29}\)

2.3.3. Structure of Information System

Gopinath\(^{30}\) conceptualized the structure of IS under some criteria such as basic features and parameters.

Basic Features: Information systems have the following basic features:

[i] They have a control channel and a content channel- that is information.

[ii] They are historical or current-that is time dimension of information.

[iii] They are remote or local-that is space dimension of information.

Parameters: The parameters of an Information System are:

[i] Users; [ii] Information sources; and [iii] Technologies.

[i] Users: The user part calls for:

- identifying the information needs; and
- usage patterns and ease of use.

[ii] Information Sources: The information part calls for:

- information transfer mechanism (carrier media; paper or electronics or optical);
- information storage-memory;
- information retrieval techniques classification/cataloguing/search;
- information resources, documents, institutions, human being;
- communication-mode and media.
Technologies: The technology part includes:
- computer systems;
- telecommunication systems;
- reprographics and micrographic equipment\textsuperscript{31}.

2.3.4. Information System Development

This will be a mission oriented information system having distributed partitioned databases. Like general information system, it essentially comprises a combination of various functions, including facilities for collection and analysis of data, in storage and retrieval and its dissemination to users. The process of documentation should be organized in bottom up fashion. In the process of data acquisition and data up-gradation for the development of databases, active participation of rural communities must be involved to make the data most effective at the ground level. Otherwise the basic aim of the information system will fail. The various databases of the information system should be linked to constitute countrywide network\textsuperscript{32}.

2.4. Information for Development: The Role of UNESCO'S General Information Programme

In many developing countries, by the lack of adequate information relevant to national needs and objectives and by the inability of many decision-makers to make effective use of such information as is available. Without relevant information, countries cannot choose the best courses of action in terms of their own national interests. If information systems and services are to play an effective role in the solution of development problems, they must be able to offer alternative solutions for these problems.

This being the case, UNESCO, within its General Information Programme, seeks to develop a strategy that will foster the development of national information
systems and services operated by qualified national staff, and that will not only facilitate the flow of information but also increase national capabilities for innovative development, for creativity, and for making the optimum use of local and international information resources.

Recognizing the increased interdependence of all countries with regard to information, the international community has, for a number of years now, been establishing information systems and services designed to serve the whole world. Economic, technical, professional, political and humanitarian motives have prompted the design and implementation of these international systems, a large number of which have been created by the organizations of the United Nations family. Such systems are costly and are often underused; they constitute nevertheless a unique mechanism, internationally managed and 'neutral', which is of particular interest to developing countries.

Consideration of the situation described above leads to the identification of a number of key issues which will require the concerted attention of the international community in the years to come. These include: the development of information systems specially designed to serve decision-makers; the development of information management capabilities at the national level, including the education and training of personnel capable of acting as 'liaison officers'; the development of national capabilities to make rational decisions regarding the introduction of informatics, telecommunications and other modern information technologies; the need to minimize the adverse effects of the introduction of such technologies in traditional societies; the removal of economic and linguistic barriers to information access; and the promotion of international collaboration in the development of information systems and services.
The General Information Programme of UNESCO, which incorporates UNISIST, contributes to the solution of some of these problems and is expected to evolve in order to assist Member States in an increasingly effective way in tackling their problems related to the production, storage, retrieval, management, transfer and utilization of information.

2.4.1. The General Information Programme of UNESCO

The General Information Programme (PGI) was formally established by decision of the General Conference of UNESCO at its nineteenth session in 1976. At the same session, the General Conference also approved UNESCO’S Medium Term Plan for 1977-1982, which covered all aspects of the organization’s work, including, in Chapter X, the transfer and exchange of information. Objective 10.1.04, the plan, directed towards the development and promotion of information system and services at the national, regional, and international levels, was divided into four sub objectives relating to the formulation of information policies and plans, the establishment of norms, the development of information infrastructures, and the education and training of information specialists and users.

In establishing the PGI, the General Conference authorized the Director-General to undertake activities in four main fields, broadly corresponding with the four sub objectives of the medium-term plans. The General Conference at its twentieth session, in 1978, reformulated these objectives to create the five main themes of the General Information Programme:

Theme 5/10.1/01: promotion of the formulation of information policies and plans at the national, regional and international levels.

Theme 5/10.1/02: promotion and dissemination of methods, norms and standards for information handling.
Theme 5/10.1/03: contribution to the development of information infrastructures.

Theme 5/10.1/04: development of specialized information systems in the fields of education, culture and communication, and the natural and social sciences.

Theme 5/10.1/05: promotion of the training and education of specialists in and users of information.

Under each of these themes, particular attention is paid to: (a) the needs of all groups of users and potential users who require information to make their proper contribution to the development process; (b) a user-oriented approach in designing and developing information system and services; (c) the special needs of the least developed countries; (d) the importance, not only of improving the flow of and access to world sources of information, but also of encouraging creativity, capacity for innovation, maximum utilization of local information resources and developing endogenous capabilities; (e) the need to facilitate the selection, use and adaptation of advanced information and communication technologies by Member States; (f) the importance of evaluating the activities which have been undertaken, and a general sharing of the results of experiences with and among Member States.

The highest priority among these is ascribed to the development of infrastructures and to education and training. Importance will, however, continue to be attached to the other three themes as prerequisites for the coherence of the programme and for action in support of the exchange and transfer of information.

PGI operates under the overall direction of an Intergovernmental Council comprising representation of thirty member States. The programme is administered by the Division of the General Information Programme, which comprises a small administrative unit and six functional sections, namely; Promotion of Information
Policies and Planning; Programme Promotion, Evaluation and Documentation Support; Promotion of Methods, Norms and Standards; Development of Information Infrastructures; Training of Specialists and Users; and Operational Section.

2.5. Conclusion

The most important input into modern productive system is no longer land, labour, or capital – it is information. In reality, the importance of information as an input into human economic activities is nothing new. From it very beginnings, all human economic activity has relied heavily on information. The hunter recognizing the tracking of a boar ... the farmer harvesting seeds to plant next spring .... the weaver using a handloom .... all these were using information to carry out their various tasks

Today, information inputs have become dominant: all economic activities are dominated by technology. Now, all forms of technology are, in their turn, becoming dominated by information technology. No wonder that the bulk of the labour force has come to make its living by processing information

In truth, that is also nothing new-it has always been that way. Since the emergence of human speech, what has differentiated us from the rest of the primate stock is the increasing efficiency with which we, collectively, have been able to accumulate and transmit community information. Furthermore, one can argue that it was the efficiency with which a society was able to process and transmit community information —creating a “collective intelligence”—that determined its success. That is, in the course of human history, advanced cultures came to dominate or displace more primitive ones—in each case, the advanced cultures/society were characterized by socially more efficient Community Information Processing System.
In the fast developing world, information or data is treated as "power". Thus, information is considered as the most powerful resource like men, material and money. For any research work, the pre-requisite is collection of all the available information relating to research areas of study. Information is essentially required commodity in any kind of research activity, only because of its immense value in forming the policy and decision making. Therefore, it is necessary that those who 'have' information play a vital role in all kinds of human activity and is an important factor for the overall progress and development of society 36.

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34. *Ibid*, p.156
