CHAPTER 2

CONCEPT OF INTEGRATED INFORMATION SYSTEM

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2.0 INTRODUCTION

KEY TERMS

The theme of the study centres round the following concepts:

1. Information;
2. Information system;

The purpose here is to furnish a unified few of the different disciplines admitting integration under the rubric "Information Sciences" by recognizing a unity of purposes among them, through a systems-approach. For this purpose an interpretative definition system has been formulated. Reference have been made to the systems environment, characteristics and varieties. An operational of system, integration has been given. A working definition of "information" has been developed and varieties of information has been enumerated the role of information in the newspaper industry has been highlighted with particular emphasis on the barriers between the information and its users. The overall objectives of information system as a whole, have been recognized as contributory to that of the information in
development system. The information generation system, information communication system and information service system have been distinguished as the three primary sub-systems of the total information system. The overall objectives of these sub-systems have been consolidated to formulate normative principles of the total information systems indicating specially how the principles are shared by its difference primary components.

2.1 DEFINITION AND MEANING

2.1.1 Information

The word "Information" is used to identify many different concepts. Information is regarded as data it can be transmitted between individuals and each individual can make whatever use one can make use of it. As information becomes publicly recorded it becomes a form of objective knowledge available to all.

2.1.2 System

System is generic term used to comprehensive compound existence, complex existence and existence-complexes. Any member existence deemed to be nonwhole of a system at any level or synthesis is a component.
Alternative definition of a system reads as follows:

"System is a set of complex component in the autonomous framework".\(^2\)

2.1.3. System Environment

The components belonging to once sub systems may be considered as parts of the environment of another sub-system.

2.1.4 Network

It may be described as combination of nodes and links. The network regulates information flow amongst various constitutes of the system which involves more than two information units, interrelated by continuing transactions often in support of a common operation or service, the objectives being the improvement of the service and reduction of the cost, which is normally achieved by the effective resource sharing.

Tanenbaum,\(^3\) defines computer network as inter-connected collection of autonomous computers. Computers are set to be inter connected, if they are able to exchange information. Connection could be either, by copper wires, lasers, microwaves or communication satellites.
Purser, defines network as physical network, which is said to consist of all internal switching codes, their interconnecting links and the links leading to external connecting devices. The external devices themselves, computers and terminals collectively referred as a data terminal equipment (DTE). The DTE is attached to physical rather than forming part of it.

2.2 SYSTEMS APPROACH

The work pertaining to a system predominantly involves the three process of analysis, synthesis and evaluation.

2.3 ORGANIZATIONAL CONTEXT OF INFORMATION

Knowledge flows with the above concept of the integrated information systems. The various components in the new information network can be identified as follows.

COMPONENTS OF NEWSPAPER LIBRARY SYSTEM

The concept of any library is user-oriented. For a functionally planned library, with the basic study of various kinds of users is imperative. One the basis of the connotation, the taxonomic view of resource persons and
allied partners in the context of use of knowledge flow in
the library is analyzed in anticipation of its requirements;

1. Kinds of Library Users
   (a) Professional
   (b) Semi-Professional

2. Types of Documents

3. Information Specialists

1. Kinds of Library Users

According to the modern concepts the newspaper library is
a specialist library catering to the needs of all kinds of
users covering science, commerce and trade, education, social
culture, economical and historical aspects. For the diffusion
of input of knowledge collection of newspaper library, the
norms, goals, roles, and value are entirely different from
other academic scientific libraries. Keeping in view of its
huge area of knowledge, a special kind of collection of
documents is anticipated. They constitute macro and micro
documents of special natures. It is in this context, it is
necessary to know the type of user and the requirements of
newspaper information.
2. Types of Documents

The users of this typical library is entirely different from the other libraries who normally consult books, journals, standards, reports, etc. A newspaper library uses are public-oriented researches wanting in from A - Z of all vertical subjects of science, arts, commerce, sociology, culture, economics, education, and historical information for immediate use. Even the librarian does not know what kind of information is wanted at what movement. This is the conglomeration of information resulting into complex form of collection of documents ranging from macro to micro level. It is necessary to have a holistic view of anticipated information.

3. Information Specialist

Information Scientist or librarian are normally considered as custodian of information. The librarian has to keep a dynamic working relation between the editor, sub-editors, reporters, future article writers, photographers and host of other technical staff. News library should be established for the perfect and efficient diffusion of information as and when required. This unified system with on-line command is expected to speed up the progress of the library.
The organization of the library should focus the image of the surrogate systems delivering a perfect use of library. Newspaper information dissemination is a very sensitive and skillful job as the supply of information is of varied nature. The queries or the enquiries made by different users are highly sophisticated covering social, political, cultural, economical, science, education business, etc. The information particularly in the field of yellow journalism, crime and obituaries requires particular attention of the librarian. His responsibility and genuinity will be more appreciated when he extends clippings services photo research and digest services to all users.

2.4 KNOWLEDGE FLOW AND ITS UTILIZATION

News information flow:

India is passing through an era of economic transition. People's attitude and values are changing fast. Media are also immensely contributing to this change. The progress made by India in the field of economics, politics, cultural and other fields shows how media aided and assisted to accelerate, the techniques of radio, television, press, communication, computers, laser, optical fibers, satellites, chips
technology. Other multi-media have opened up new vistas in
the process of knowledge utilization. Since communication
is a two-way process, the media act as a bridge for feeding as
well as receiving information. The state is constantly feeding
the masses with the information as policies and programs under
taken and progress accomplished. The masses on the other hand
registered their distances, priorities acceptance, satisfactions or dissatisfactions mainly through the mass
media. The field publicity network operates shoulder to
shoulder with rural masses in the area of inter-personnel
communication. Apart from this film shows seminars, symposium
and discussions, exhibitions are also the channels of
knowledge. The activities connected with the cultural units
song and dram, audio visual aids, photo and film, formal and
informal and press publicity will add to the flow of
information.

The above knowledge flow in the field of newspaper
information is a part from the micro documents available
for immediate use.

2.5 LINKING ROLES

This is the typical phase of the study. Different
relationship of the components of the system of
The different components of this system are editors, sub-editors, documents, information specialists (i.e., librarian) and general public.

The above network users have different types of approaches of seeking information. The sophisticated type of information is being used by editors. The next level of users of information would be of reference type. In certain case, they may need exhaustive type and this indicates the various linkages of users.

2.6 MODEL REPRESENTATION

Basic Concepts of a Model

Different concepts and components of a system normally go under many levels. Many terms, such as message, barriers and typical usages are expected. However, the object of this study is to enlighten the special concerns of effective knowledge dissemination and utilization techniques in the field of Newspaper industry, providing a framework for understanding the process of news gathering, reporting, reviewing the different agencies and the processes involved in the system and the impact of conventional methods and the non conventional methods with merits and demerits. The various
types of coordinates, collaboration, interpretation and interaction processes of the media linkages of human variables and the interface of the user system in the domain of news information are to be assessed with the help of models. Out of several models developed the "Roger Model" is considered as a general model to depict as the paradigm of the adoption of a social system. The purpose of this model is logically related to structure and the variables of the phenomena represented. The entire study of the model deals with three distinct points of view towards "Diffusion, development and utilization. The ideas designate a complete conceptual system within which all the facts pertinent to information flow can be seen and could be represented.

ROGERS' MODEL CONCEPT

E.M. Roger\textsuperscript{5} conceives "the transfer of information and adoption of innovation" as a diffusion process. He defines as a process by which innovation spreads. He opines that diffusion process has something to do with the adoption process, which according to him is a "mental process through which an individual passes from first hearing about an innovation to final adoption." His work, however, provides a number of well defined concepts. He separates diffusion of
Innovation process into adoption process and communication channels leading to ultimate results.

This concept of diffusion process is well illustrated in graph by a "paradigm of the adoption of an innovation by an individual within a social system."

GENERAL FEATURES OF THE MODEL

Roger's model contains aspects, viz., A comprehensive approach and interaction of his findings to evolve a theory based on the first two aspects. These features have made the system perfect. He has carefully laid out a five-step theory of adoption after having perceived type characteristics of the innovation and the characterization of adopters.

STAGES IN THE MODEL

"Rogers' model' has five stages. The initial stage for any innovation to be adopted which is already in a developed form suitable for use is one of awareness of innovation. The awareness will usually be by stages of interest in information seeking, evaluation, trial and adoption.
The primary function of the awareness stage is to bring to the knowledge or the adopter the existence of innovation for adoption.

The adopter favors the innovation in a general way, but he might not have judged its utility in terms of his own situation. The function of the interest stage is mainly to increase the individual's information about the innovation.

The third stage is evaluation. This stage Roger mentions that the individual mentally applies the innovation to his present and anticipated future situation and then decides whether or not to try it. This is considered to be the least distinct and the most difficult phase to obtain information.

The fourth is the trial stage. This is to demonstrate the new idea in the individual's own situation and to determine its usefulness possible complete or total adoption.

Adoption is the final stage. This is considered as continued use of the innovation in the future. On the basis of the decision arrived in the trials, the decision is made to adopt or reject innovations.
Characteristics of the unit (farm, school, business) - Complexity

4. Divisibility
3. Complexity
2. Compatibility
1. Relative advantage

Perceived Characteristics of the Innovation

Awareness
1. Community influences
2. Personal-impersonal
3. Social system norms on Innovativeness
4. Economic constraints and incentives
5. Innovativeness

Evaluation Trail
1. Initial Evaluation Trail I
2. Personal-impersonal Evaluation Trail II
3. Social system norms on Innovativeness Evaluation Trail III
4. Economic constraints and incentives Evaluation Trail IV
5. Innovativeness Evaluation Trail V
6. Opinion leadership

Perceptions of the Situation
1. Security anxiety
2. Values
3. Mental ability
4. Social status
5. Cosmopolitanism
6. Opinion leadership

Paradigm of the Adoption of an Innovation by an Individual

Diagram No. 1
Browsing through the retrospective collection of literature is most essential for any investigation. The study has enabled to confirm certain finding with help of past data. The "Review Of Literature" relevant to the study is given in Chapter No.3.
REFERENCES


