# LANGUAGE AS A BARRIER IN COMMUNIATION OF INFORMATION

**M. Suresh Babu***

**Abstract** *Communication is generally easier over shorter distances as more communication channels are available and less technology is required. Although modern technology often helps to reduce the impact of physical barriers, the advantages and disadvantages of each communication channel should be understood so that an appropriate channel can be used to overcome the physical barriers. Language is a medium to express our th ughts and feelings in any field. Free flow of information, from its origin to the ultimate consumer, has been a subject of concern to librarians, scientists and of late to Governments also. It is of immediate concern to scientists, authors etc. who are the ultimate consumers. There is growing acceptance among senior executives of the vital importance of information and knowledge in a post- industrial society.*

**Keyword:** *Language, Barrier, Communication, Information*

## CONCEPT OF INFORMATION

The word "Information" comes from the Latin word ***informare*** meaning to inform, or give to (my italics); and the Oxford English Dictionary gives 1387 as the first date in which the word was used in it English form. For some years this was mainly within the context of religious teaching, but in 1450 there is an example of the use of the word to mean "Knowledge communicated concerning some particular fact, subject or event; that of which one is apprised or told; intelligence news:". This later definition brings in the word knowledge, and in the year 2005 we still tend, un helpfully, to use the terms interchangeably. The classic work, by the Japanese authors Ikijuro Nonaka and Hirotaki Takeunchi (The Knowledge – creating company) introduced the concepts of tacit knowledge and explicit knowledge (i.e. information in its librarian sense). So, information remains a tangible resource to be managed, while knowledge is an intangible resource to be captured.

There is growing acceptance among senior executives of the vital importance of information and knowledge in a post-industrial society, but a poor understanding of these abstract resources that can be re-used over and over again, but on which it is impossible to put a price. We need books written from different viewpoints, before we can claim to be master of the information revolution. We should remember that the theory of steam power came after the invention of the steam – driven locomotive.

The observation or behavioral constraints state that the concept of information must explain and predict observed behaviors of individuals (or knowledge structures), with respect to information. Three observations are particularly striking in these instances, and have been much discussed. They are: the differences of responses of different individuals to the same data, the different times, and the differences of response of the same individual to the same data presented in varying forms. "For differences in response" one could substitute "varying effect". The first two observations I would like to group together into a single constraint, which is that the informational effect of a partic8iluar set of data varies according to the state of knowledge of the recipients. Or, as others have put it, that information is seen as a *change* in state of knowledge.

## NATURAL CHARACTERICS

### Exponential Growth

Since the invention of printing there has been a continuous revolution in the generation, transfer and communication of information. Information, in fact has been growing at an exponential rate which is often referred to as "information explosion". Information is carried and communicated through various media. These can broadly be categorized into two – the "documentary media'. And the non-documentary media. In the documentary media, book production more than doubled in a decade. Presently more than 10,000 titles are published every working day and thus, more than 3 million in a year. The production of periodicals rose from 10,000 titles in 1900 A.D to 170,000 titles in 1971 A.D.

### Doubling of Knowledge

According to American National Education Association:

* Librarian, Sreenidhi Institute of Science & Technology, Hyderabad, Telangana, India. drsureshsvu@gmail.com

'It took until 1750 for man's knowledge at the time of Christ to double. The second doubling was completed 150 years later in 1900. The fourth doubling of all man's knowledge took place in the decade of 1950s. looked at another way, technology has multiplied by 10 every 50 years for over 2,800 years. In 1950 there were one million scientists and engineers in the world: in 1900 there were 100,000; in 1850-10,000; and in 1800-1,000.

According to Rider – Amercian libraries which try to collect everything appearing on a given subject double their size every 16 years.

## INFORMATION IS CUMULATIVE

### Gathering of Information

Human activity can be viewed as a process of building up of knowledge is built-up in two ways – individual and collectively. The knowledge conserved by human, we call "Universe of Knowledge". The individual knowledge is the sum-total of ideas comprehended by a person. An individual gathers information either by experience or through formal education or by both.

### Storing Information

The Knowledge acquired by an individual is stored in his brain or in material form by recording the ideas using a medium. The retention of ideas in human mind will depend upon the frequency of application, interpretation and use. The recorded information will be available for wider public use and is subject to interpretation.

### Application

The information available can be elaborated, consolidated, interpret and used for varied purposes basing on the kind of information.

## IN RESEARCH AND DEVELOPMENT

### Impact of Information Explosion

Mr. Weinberg in his report to white House submitted in 1963 stated that

"We shall cope with the information explosion in the long run only if some scientists and engineers are prepared to commit themselves deeply to the job of sifting, reviewing and synthesizing information, i.e. handling information with sophistication and meaning not merely mechanically. Such scientists must create new science and not just shufile documents: their activities or reviewing, writing books, criticizing and synthesizing are as much a part of science as is traditional research".

Aslib carried out a survey on the impact of information on R & D in 1960s. The response from 245 R& D personnel was analyzed as follow:

| Finding | Number of Responses |
|---|---|
| Information made available in dicated duplication of the work of others | 43 |
| Information, had it been known earlier would have led to : | |
| i) Planning the research differently | 36 |
| ii) Alter the plan of research in progress | 60 |
| iii) Saving of time, money and research potential | 106 |

### Wastage of Resources for Want of Timely Information

**U.K :** The estimated cost of unintended duplication in scientific research in UK due to delay in the supply of information in the 1960s was Rs 21.6 million.

**USA :** The estimated annual cost by way of unintended duplication of governmental research in the field of electronics in the sixties was Rs. 15 million.

The estimated cost of 5 years of research on electronic translation equipment in USA proved to be duplicating the work already done and published in Russia was Rs 18.7 million

According to a report of the Controller General of US, the US Air force and NASA spent a whole year inadvertently developing similar space vehicles – Atlas Agena B and Atlas Vega. This coasted a wastage of Rs 135 million

### Informational Pollution

with the increase in the volume of information, it is becoming difficult to locate pull out specific information, Special Assistant to the President of USA stated in 1965 that

"Chaos, duplication and waste are the words used more and more frequently by responsible members of our nation's scientific community to describe the problem they face in being unable to refer effectively to the records of the previous accomplishments"

J.D. Bernal long back stated that : "It may be easier to find out a fact by experiment or to build-up a theory than to ascertain from the published documents whether these have been discover or deduced before".

The explosion of literature does not really indicate the growth of new ideas. According to bourgeois, Former Director, National Library (Switzerland)" out of 100 technical articles only 8 furnished a really original contribution to learning and research.

## Need for Free Flow of Information

Free flow of information, from its generation to the ultimate consumer, has been a subject of concern to librarians, document lists, scientists and of late to Governments also. It is of immediate concern to scientists, authors etc. who are the ultimate consumers. Strangely enough, scientists who are the primary generators of information, in turn become the consumers also. Between them the information flows in a sort of cyclical continuum. "Information is both a major nutrient and a primary end- product of research and development. The information utilized by the scientist can be considered as "input" to the research effort, and that resulting from their work as "out put". Thus a feed – back has to be organized and maintained with the least amount of dissipation and wasteful duplication, so that the flow of information is streamlined and automatic.

In a wider perspective, the information or the knowledge which concerns society at large, and which alone makes individuals well – informed and able to judge and discriminate, has to be organized so that there is not only an unhindered free flow but freedom and right to its access is also guaranteed.

Information equally needs free flow across national ideological, political and language barriers. In the field of developmental activities, it is said that inadequate information alone is costing one billion dollars a year resulting in development funds being wasted, to say nothing of even more important loss of energy and opportunity and hope, or of resulting extension of human suffering.

## Barriers to Communication

The barriers to communicate of information can broadly be grouped into the following categories:

1. Institutional impediments
2. Financial
3. Technical
4. Linguistics
5. Social and psychological
6. Administrative and political

## Institutional Impediments

There are three basic institutional impediments. These are

1. Status (of a person and organization )
2. Structure (Hierarchical )
3. Secrecy ( Fear or Losing ).

## Linguistics

**"**Language difference imposes a barrier to all communication" wrote Dan Lacy in "Challenge to Librarianship". His thesis was that foreign language barrier is an impediment to the process of International understating and consequently at threat to peace, progress and prosperity of the world.- a view which has fond acceptance everywhere. The diversity of languages throws a challenge to the world of Librarianship also, for, we acquire, organize and disseminate information which cut across the barriers of language difference.

Man's inherent instinct is to communicate his experiences to his fellow beings. From gestures, signs pictograms man has passed on to an epoch of symposium and ideograms. Susanne K. Langer says that it is the power of using symbols that sets man so far above other animals. It is the power of speech that makes him lord of the earth. In other words, language is nothing but the highest developed form of symbolism. Ernst Cassirer, the famous philosopher remarks. "Language – the symbolization of thought –is man 'prime instrument of reason." Language so far is the most effective tool of communication. Cassirer goes on to which are to be found in all animal species, we find in man a third link which we may describe as the symbolic system. This new acquisition transforms the whole of human life. As compared with other animals, man lives not merely in a broader reality; he lives, so to speak, in a new dimension of reality".

In order to decipher the meaning of a particular symbol, we must know it key. Each language is also related to a particular community of men. Therefore, one learns from childhood the mother tongue. But one is not generally initiated to other languages prevalent in other societies. And thus we come across the "language differences" referred to above by Dan Lacy and, we find ourselves imprisoned in the language of our society and culture.

"Inability to read any language other than one's own mother tongue means the loss of an ever-increasing amount of information, the ability to search for and find pertinent information on a subject is governed, to a great extent, by the language knowledge of the searcher". The appearance of materials relevant to all fields of knowledge in various languages is a sort of necessary evil. It is a phenomenon which, librarians will have to reckon with.

Though languages were ostensibly created to facilitate communication, quite often they become the major hindrance to the communication of scientific and technical information. Each linguistic community virtually forms an island by itself, in which only a few scientists can communicate with more than one or two other linguistic groups.

Initially, scientific thought that it will be sufficient for them, if they could master a few important foreign languages. Learning foreign languages formed part of education in science and technology. It worked well for some time. But, acceleration of research in hitherto regarded as minor linguistic groups, and library and information profession coming forward with organized translation services and bibliography control of technical translations at various levels, changed the situation completely.

National and International documentation centers started maintaining permanent translators for all major languages. Panels of translators are being maintained by all documentation centers. Special training programmes are being organized for scientific and technical translators. Association of professionals

Translators are being formed in different countries. A part from Govt sponsored agencies, commercial translation services have come up.

Exclusive translation centers at International and national level is a recent phenomenon. The European Translation Center, 101 Deolestraat, Delft, The Netherlands is an example of International translation center, which is concentrating on East European scientific and technical literature. Russian Science Information Center at INSDOC supplies on demand English abstracts of Russian literature received in the center. It also provides Russian translations.

Jargon : Even with a known language, there are problems associated with jargon, such as, neologism ( coining or using of new words ); synonyms (= two or more words of the same language, with the same meaning but often with different implication and associations ; acronyms (= word formed from the initial letters of a name , e.g.NASA) ; etc

## CONCLUSION

### To Overcome the Barriers

Access to information is vital for the development of an individual, origination or even a nation. Organizations should involve people at various levels in gathering pressing and utilization of information for the benefit of the organization.

Research and academic institutions should allocate reasonable amount of money for library and information units so that they can come out with suitable information.