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Paper No : 04 Information Sources, Systems and Services

Module : 03 Types of Information Sources: Non-Documentary: Organisations And Humans



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Module 3: Types of Information Sources: Non-Documentary: Organisations And Humans

I. Objectives

The objective of this module is:

- To learn the various types Non-documentary information sources and resources which include Institutional and Human resources.

II. Learning Outcome

After going through this module, you will learn the various types of non-documentary information sources and resources which include institutional and human resources. The non-documentary sources of information are extremely important in the process of communication. This is due to the fact that whenever a user, while doing research or working on a project, wants some information immediately, he/she approaches a colleague or a non-conventional source. This is to save time as using or searching from a documentary source or visiting a library very often may result in delay. Non-documentary sources of information provide information instantly and are very easy to handle.

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1. Introduction

The information requirements of users belonging to various subject areas are taken care of by libraries and information organisations. For this, it is essential for every information organization to carry out information resource development which includes development of both documentary and non-documentary sources of information. The development of documentary sources is also referred to as collection development. However, it is also essential to develop or maintain the non-documentary sources of information as many of the formal documentary sources may not be able to provide what is otherwise available in non-documentary sources. It is an essential activity for modern information organizations as it facilitates providing of efficient and effective library services. The non-documentary sources of information are extremely important in the process of communication. This is due to the fact that whenever a user, while doing research or working on a project, wants some information immediately, he/she approaches a colleague or a non-conventional source. This is to save time as using or searching from a documentary source or visiting a library very often may result in delay. Non-documentary sources of information provide information instantly and are very easy to handle.

The non-documentary sources of information include government establishments, departments, universities, technological institutions, data centres, information centres, referral centres, information analysis centres, clearing houses, consultants, technological gatekeepers, etc. Non-documentary sources of information also include discussion with colleagues, visitors, participants of seminars and conferences, etc. The library through the referral service provides access to important non-documentary sources of information which may include the learned societies, research associations, mass media, etc.

In this Module, the various non-documentary sources of information are categorised and discussed with little details along with examples.

2. Information Sources

An information source is any system producing information or containing information intended for transmission. In library and information science, the information sources are the sources from where we get information for satisfying our information requirements. Information sources being the means for transmission of information are usually represented in various forms, which are textual (books, journals, manuscripts), graphic (graphs, diagrams, plans, charts), audio-visual (sound recordings, motion pictures, slides) and electronic. These sources comprise of documents, institutions or organizations and human being. The most important division of information sources is considered to be the documentary sources, and

non-documentary sources. For example, a book or periodical or dictionary or an encyclopaedia is a documentary source, and an expert or an R & D organization is a non-documentary source.

The documentary sources thus include all the modern and traditional reference and information sources that we have already discussed in the Module on Documentary Sources. All recorded sources of information irrespective of their contents and form come under documentary sources. These may be published or unpublished, in print or in electronic form. On the other hand, the non-documentary sources are those sources which are not recorded in any form.

Information sources are different from information resources. The data and information and other assets of an organization are referred to as information resources. Resources in libraries are libraries complete stock or collection, uninterrupted supply of money, materials, staff, and other assets that can be drawn on by a person or organization in order to function effectively.

3. Non-Documentary Sources of Information

The non-documentary sources of information can be defined as those sources and resources of information that are not contained in any document. The non-documentary source comprises of formal and informal sources. Formal sources include information of research organizations, societies, industries, government departments, universities, consultants, etc. Informal sources include human sources, conversation with colleagues, consultants, experts, resource persons, mass media, etc.

The main categories of non-documentary sources are:

- Institutions or Organizations
- Humans
- Mass Media other than print media, and
- Internet

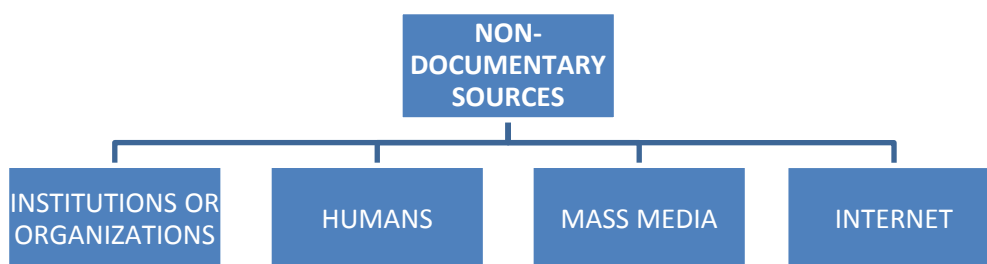


Fig.1: Non-Documentary Sources

The organizations as sources of information include academic institutions, government ministries and department, research and developmental organizations, societies, publishing houses, international and national agencies, etc.

The human resources are the experts, consultants, resource persons, extension workers and even the common human beings.

Mass media refers to any means of public communication that can reach a large audience. Examples of the mass media include - the internet, television and radio. Magazines and newspapers are also deemed to be mass media.

Internet is another very important source of information. Internet is interactive digital media and is different from the traditional media such as print and television. World Wide Web (WWW), also called the Web, is collection of websites on the Internet and offers information on almost all the topics.

4. Institutions/ Organisations as Sources of Information

As mentioned in the preceding sections, institutions and organizations are also sources of information. There are various categories of institutions and each one makes available certain type of information for different target users. It is a known fact that information made available by institutions/organisations is always authentic.

Various institutions that make available information always sought out by the users are:

- Academic institutions
- Research and development organizations
- International agencies
- Government Ministries, departments and agencies
- Exhibitions and trade fairs
- Learned societies and professional institutions
- Publishing houses
- Database vendors
- Museums and archives
- Libraries and information centres
- Information analysis centres
- Referral centres

Let us know some details of each of the above mentioned institutions that help users to access information for use.

4.1 Academic Institutions

Academic institutions are the universities; colleges; Indian Institutes of Technology; medical, law, veterinary, pharmacy and management schools; polytechnics; secondary and senior secondary schools, etc. The information furnished by the academic institutions usually relates to the number, types and duration of courses run by the institution, details of faculty, past records of students concerning the dates of admission, leaving, results, performance in cultural activities and sports, etc. These institutions mostly provide biographical details of individuals along with photographs, etc. The libraries/information centres of these organisations have valuable resources which are available for consultation by any person requiring the same.

Examples: Jawaharlal Nehru University, New Delhi; Indian Institute of Management, Lucknow; Indian Institute of Technology, Mumbai; Meerabai Polytechnic, New Delhi; Delhi Public School, Noida

4.2 Research and Development Organizations

The key activity of research and development organizations is generating information through research work. This research related information is published in the form of research papers, short communications, reports and monographs. Research and development organisations usually establish information centres. In such cases, there is a possibility of discussion and exchange of information between the members of an association. These organizations make available details related to core areas of research work of scientists, biographical details of individuals working in these institutions, service profiles, laboratory notebooks, correspondence, details of path to achievements and any other significant information related to individuals or research work.

Examples: National Physical Laboratory, New Delhi; Defence Research and Development Organisation, New Delhi; National Remote Sensing Centre, Hyderabad; Indian Institute of Tropical Meteorology, Pune

4.3 International Organisations

An international organization is an organization with an international membership, scope, or presence. These organisations operate at international or regional level and usually collect, process, generate and disseminate useful information through their products, services or publications. Many times, vital information is also available from the websites of these international agencies. The international agencies usually collect statistical details from various countries related to academic activities, socio-economic data, scientific workforce and many other areas like cultural, demographic data, etc.

Examples: International Organisations - United Nations; Organisation for Economic Cooperation and Development; World Health Organisation; International Atomic Energy Agency

Regional Organizations too are international as they incorporate international membership and encompass geopolitical entities that operationally represent a group of nations in a region. They are established to foster cooperation and political and economic integration or dialogue amongst states or entities within a restrictive geographical or geopolitical boundary.

Examples: Regional Organisations – South Asian Association for Regional Cooperation, European Union, African Union

4.4 Government Ministries, Departments and Agencies

A government ministry is a specialized organization responsible for a sector of a government usually led by a minister or a senior public servant, that can have responsibility for one or more departments, agencies, bureaus, commissions or other smaller executive, advisory, managerial or administrative organizations. A government agency is a permanent or semi-permanent organization in the machinery of government that is responsible for the administration of specific functions. A government agency is normally distinct both from a department or ministry, and other types of public bodies established by government. The

functions of an agency are normally executive in character, since different types of organizations (such as commissions) are most often constituted in an advisory role.

The various government ministries, departments and agencies usually make available authentic and latest data related to their sphere of activity as they gather and generate information from their own sources. The ministries, departments and agencies are usually approached for a large variety of information by planners, policy makers, researchers and decision makers. The election bodies, national standards bodies, etc. also fall in this category.

Examples: Ministry of Agriculture, Ministry of Home Affairs, Department of Women and Child Development, Department of Revenue, Election Commission of India, National Commission on Women

4.5 Exhibitions and Trade Fairs

Exhibition is an event to collectively display different art, product or skills. Both individuals and businesses partake in this event to reach specific goals. Various types of exhibitions are especially organized to cater the needs of the participants. There are commercial and non-commercial exhibitions. Commercial exhibitions are intended to attract buyers and sell the displayed items while non-commercial exhibitions are simply arranged for appreciation of talents and skills. Each item displayed in exhibition is referred to as an exhibit. Usually organized for a short period, exhibitions are highly informative and provide a great deal of information concerning exhibits displayed in the exhibition. During many exhibitions conferences and panel discussions are also held, which are a useful source of information for concerned users.

Examples: Concrete Show India 2014; India International Leather Fair 2014; 8th Renewable Energy India Expo 2014

Trade fair is a massive, stage-set, and usually regular trade event at which a large number of manufacturers from a particular industry present their products and show their capabilities to distributors, wholesalers, retailers, and end-users. Some trade fairs (like the Book Fairs) attract participants and visitors from all over the world and provide widespread interactions and exposure. Trade fairs are a popular means of sales promotional also because they enable face to face contact between sellers and buyers. A trade fair (or trade show) in other words is an exhibition organized so that companies in a specific industry can showcase and demonstrate their new products and services. Some trade fairs are open to the public, while others can only be attended by company representatives (members of the trade) and members of the press, therefore tradeshow are classified as either "Public" or "Trade only". During the trade fairs, the manufacturers and traders print their own product catalogues that provide chief features of the products with diagrams and photographs, etc. These catalogues are main source of information and are available free of cost to users/customers. Many manufacturers, instead of catalogues, bring out only brochures or leaflets to describe their products that may give details of cost, features, quality and even comparison with other similar products.

An increasing number of trade fairs are happening online, and these events are called virtual tradeshow. They are increasing in popularity due to their relatively low cost and because there is no need to travel whether you are attending or exhibiting.

Examples: India International Trade Fair 2014; Jewellery & Gem Fair 2014; India International Trade Fair 2014

4.6 Learned Societies and Professional Institutions

A learned society, also referred to as a scholarly society or academic association or professional institution) is an organization that exists to promote an academic discipline or a profession, or a group of related disciplines or professions. Membership is usually open to all who have acquired same qualifications. This kind of grouping of professionals is characterized by patterns of relationships between these individuals that may have distinctive culture and institutions, or, more broadly, an economic, social and industrial infrastructure in which a varied multitude of people or peoples are a part. In each major profession there are societies which are at international, national and local level. The professional societies and associations are a rich source of information as they usually bring out journals, newsletters and technical compilations. As some of the societies are very old, their archives contain valuable information. Indian Library Association (ILA), Indian Association of Special Libraries and Information Centres (IASLIC) and Delhi Library Association (DLA) are in examples of professional associations in our own field, that is, of which professionals from library community are members.

Examples: Indian National Science Academy, American Chemical Society, Sahitya Akademi, International Federation of Library Associations and Institutions

4.7 Publishing Houses

It is an organisation/group that publishes books, journals and other related publications including the electronic material. An individual does not usually have the resources to originally invest into putting a document or book on the market. A publishing house is a company that will pay for these original costs, like writing the book, editing, marketing, and printing. But to make money, they also get paid based on the number of copies sold, often as a percentage of total profit. The publishing houses bring out catalogues, prepare databases, and bring out publications being brought as part of some series. And all these are important sources of information. Also the manuscripts before editing and actual printing are usually stored by publishing houses and these are a valuable source of information for users involved in research.

Examples: Oxford University Press; R. R. Bowker; H. W. Wilson & Co.; National Book Trust; S. Chand & Co.

4.8 Database Vendors

A database is basically a collection of information organized in such a way that a computer program can quickly select desired pieces of data. A database is like an electronic filing system. A database vendor, or a supplier of databases, is an organization or an individual that provides access to or services from database(s) to subscribers. The database vendors are the most appropriate sources of information when details about a database,

sources available in it, services provided by the same and associated costs are required by users.

Examples: Thomson Reuters; Proquest; EBSCO

4.9 Museums and Archives

As a source of information, museums and archives have great value. One can see the exhibit, read the enclosed notes/details, and also pursue the catalogues and available documents for having further details on an item.

A museum is a “permanent institution in the service of society and of its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment, for the purposes of education, study, and enjoyment”. Museums enable people to explore collections for inspiration, learning and enjoyment. In other words, they are institutions that collect, safeguard and make accessible artefacts and specimens, which they hold in trust for society. There are thousands of museums all over the world through their programmes and activities, the museums can affect target groups like teachers, adults, the youth, and others through popular forum discussions on the goals of the nation for the promotion and better understanding of its heritage and its agenda for national development.

Examples: National Museum, New Delhi; National Museum of Natural History, Washington; Smithsonian Institution, Washington

An archive, on the other hand is a collection of historical documents or records of an institution, government, place or an individual. Records are documents in any format which are created by an individual or organization in the course of conducting their business. Records with long-term value and usefulness are selected for permanent preservation and become archives, acting as the corporate memory of institutions and businesses and, for some, a testament of individual experience. Archives help to tell the story of our past and to preserve our collective memory and cultural identity. These are different from libraries as libraries contain copies of published material but archives may have rare documents, files, papers, manuscripts, inscriptions, etc. Many times a particular archive has the only copy available of a particular document.

Examples: National Archives of India; National Film Archive of India; National Mission for Manuscripts (India); National Archives in Washington

4.10 Libraries and Information Centres

A library is a collection of books, periodicals, and sometimes films and recorded music for use or borrowing by the public or the members of an institution. Technically, a library is a collection of information sources, resources and services. It is organized for use and maintained by a public body, an institution, or a private individual. In the more traditional sense, a library is a collection of books for general public (Public Library) or academic community (Academic Library) or for users requiring special material, R & D material, etc. (Special Library or Information Centre).

In the technology era, the information service units in organizations are usually referred to as 'Information Centers' or "Information Departments'. The emphasis in this case, as mentioned earlier, is towards provision of information contained in the documents, rather than documents themselves which is the main consideration of traditional libraries. An information center can be defined as: "an organization that (i) selects, acquires stores and retrieves specific information in response to requests; (ii) announces, abstracts, extracts and indexes information; and (iii) disseminates information in response to requests from documents or in anticipation."

The libraries/documentation centres usually provide services based on their documentary sources. But many of the modern libraries, depending on their objectives, also acquire non-documentary sources of information.

Examples: National Library, Kolkata; Ratan Tata Library, University of Delhi, Delhi; Indian Council of Historical Research, New Delhi

4.11 Information Analysis Centres

An information analysis centre is a formally structured organization established for the purpose of acquiring, selecting, storing, retrieving, evaluating, analysing and synthesizing the body of information in a specialized field of knowledge. The chief activities of an information analysis centre include analysis, interpretation, synthesis, evaluation, packaging and repackaging of information. The process is carried out by subject specialists and result in production of new information in the form of reviews, state-of-the-art reports, monographs, compilations, etc.

Examples: FICCI Research & Analysis Centre, New Delhi; Information Sharing and Analysis Center, National Security Database, New Delhi; Information Analysis Centers, Defense Technical Information Center, United States

4.12 Referral Centres

Referral centres are organizations that provide switching mechanisms among different types of information institutions. They do not contain or provide any information as such but chiefly serve as intermediaries and direct users to institutions and individuals that can satisfy the information needs. A referral centre possesses an inventory of all significant information resources in particular discipline, compiles and contains directories of information sources/resources and has communication mechanism to assist user community.

Many modern libraries offer a referral service which is in the form of a directing service for users of the library. In this service, user is directed to a source of information which may be an organization or an individual expert. Usually, when a library or information centre does not have some material required by its users and it cannot itself obtain the same due to some constraints but knows the exact location of the document/information, then it can refer the user(s) to the sources of information.

Examples: Information and Referral Centre of Greater Montreal, Canada; Teri Library, New Delhi (Referral Service)

5. Humans as Sources of Information

Research into everyday information seeking behaviour of most of the library users has revealed that people ask other people for a lot for information. This means that at times, for some exclusive information, a particular person is “objectively” the best source. In other words, like organizations, people too can be sources of information. Human beings are considered an important source of information as the educational background, knowledge, experience, maturity and exposure to various situations makes certain categories of individuals an authority on certain topics. Thus it has been established that in many situations, only human beings can make available certain information for use by various categories of users.

Humans serve as useful sources of information for latest information which has not been recorded in any form. Ranging from experts to common man act as important sources of information depending upon the nature of information required. As an example, for historical information of a place, the living elderly people of that place are the best sources of information. Similarly, for information regarding an accident, the persons present at the accident site can serve as useful witnesses. Similarly, an expert’s opinion is very valuable, when a researcher encounters some problem while carrying out research and a solution is immediately required.

There are various categories of human that can be considered as sources of information:

- Library Consultants
- Information Brokers
- Peers/Experts
- Resource Persons
- Extension Workers
- Representatives of Firms
- Invisible Colleges
- Technological Gatekeepers
- Patent Attorneys
- Industrial Liaison Officers
- Common Persons

Let us study the above in certain details.

5.1 Library Consultants

A consultant is a professional who provides advice in a particular area of expertise such as marketing, finance, economics, accountancy, technology, law, human resources, medicine, public affairs, communication, engineering, etc. A consultant is usually an expert or a professional in a specific field and has a wide knowledge of the subject matter. Users have to pay fees as fixed by consultants for using their services. A consultant usually

works for a consultancy firm or is self-employed, and engages with multiple and changing clients. Thus, clients have access to deeper levels of expertise than would be feasible for them to retain in-house, and to purchase only as much service from the outside consultant as desired. Often a consultant provides expertise to users who require a particular type of knowledge or service for a specific period of time, thus providing an economy to the client.

As far as libraries are concerned, there are many types of library consultants. Their expertise can focus on different types of libraries, on IT, on Web sites, on space planning, on fundraising, on marketing library products and services or on other disciplines. Library consultants are either librarians who have developed their expertise by running or working in libraries, or they are people from outside the field who have specific knowledge relevant to libraries and information systems.

5.2 Information Brokers

Information broker is an individual or an organization that on demand seeks to answer queries using resources available in various places. Information brokers are in this business for purpose of profit and themselves do not have any sources available. However, they are knowledgeable persons and obtain information desired by their clientele from various organizations and then pass on the answers or information related to seek queries. They usually help their clients in getting appropriate information for projects, research, market surveys, etc. The services offered by information brokers are cost effective and also save time of the clients.

Information brokers are also referred to as consultants or consultancy organizations. The various services offered by these professionals include providing of information related to project evaluation, plant design, market surveys, marketing and sale promotion, tender evaluation, procurement and evaluation of equipment, etc. Besides these, information brokers may also carry out feasibility studies related to carrying out certain projects, activities or modernization depending upon the requirement of an industry.

5.3 Experts/Peers

An expert is a person who possesses sound knowledge on a discipline, techniques, etc. Also referred to as peer, an expert is an individual who is usually an authority in a subject area. They are widely recognized as a reliable source of techniques or skills whose faculty for judging or deciding rightly, justly, or wisely is accorded authority and status by their peers or the public. An expert, more generally, is a person with extensive knowledge or ability in a particular area of study. Experts are called in for advice on their respective subject, but they do not always agree on the particulars of a field of study. An expert can be, by virtue of training, education, profession, publication or experience, believed to have special knowledge of a subject beyond that of the average person, sufficient that others may officially (and legally) rely upon the individual's opinion. Like consultants, experts too have to be usually paid for their expertise or services. For solving research or subject oriented problems, help of these experts is required on many occasions.

5.4 Resource Persons

A resource person is one who has knowledge, relevant skills, competence and expertise to give a talk, guidance or first-hand information in a given subject or area. They are often persons who are well versed with the subject matter but are different from experts. This is because; resource persons can be of great help in training/teaching programmes usually of short durations. On the other hand, experts are of help in research oriented or typically subject related problems only. Short term training programmes usually have participants who have to be need to learn the basic concepts of the concerned topic(s) in an easy but faster manner. The resource persons thus play a vital role in coordinating teaching/learning process and help the students understand the nuts and bolts of the topic under consideration. In other words, the resource persons provide main intellectual inputs to these training programmes.

5.5 Extension Workers

The role of extension workers varies depending on the context. An extension worker is usually a technically trained person with excellent skills in managing people. They enjoy working with people, can deal with complex technical and social situations, are holistic thinkers, good problem solvers and have excellent empathy skills.

In several situations it is not possible to set up a proper information facility and the services are thus expended with the help of extension workers. An extension worker is an individual who is knowledgeable about a particular area and extends assistance to users beyond the normal area of activity, in other words, an extension worker actually reaches the users and provides all types of assistance. They are individuals usually familiar with the surroundings and persons being provided the extension services. For example, extension workers can be of help to prison inmates, hospital patients, users in rural areas, etc. In this context, health workers in villages, agricultural extension workers, workers in literacy programme, etc. are the most common examples of extension workers. In the particular field of activity, the extension workers assist users in all respects to have not only information but also in acquiring various facilities too.

5.6 Representatives of Firms

A representative is a person employed by a firm or a commercial organisation for sales promotion and other activities. Among other activities related to sales promotion, this representative also carries out market survey, study of users' reaction, identification of competitors and prospective buyers, etc. The business organizations often employ trade representatives for promotion and sale of their products. As per the usual practice, the representatives visit the prospective buyers, supply samples or brochures of various products of their organization and also give a demonstration of the products. Besides the above, the trade representatives also offer concessions, explain and negotiate the price of the product and explain the term and conditions of supply, warranty, guarantee, payment terms, after sales service and annual maintenance contracts, etc.

As the trade representatives are professionally qualified personnel, experienced and well versed with their work, they are able to answer most of the technical queries raised by the

customers related to product specification, preference related to a particular product, need based product, market trend, etc.

5.7 Invisible Colleges

Invisible colleges help to disseminate unfiltered, informal communications produced by communities of people who share an interest in a common subject or discipline. E-mail, personal conversations, conference papers, unpublished diaries, meeting minutes, phone calls, newsletters, memoranda, and other sources that may not pass through the usual publishing, broadcasting, and distribution channels ensure that invisible colleges phenomena works effectively. In this way, the invisible colleges not only highlight the significance of informal communication in the information transfer process but also help to grasp the characteristics of information network among scientists and researchers.

These are composed or prominent or learned scientists who are high performing and form an informal network of scientific communication and published literature. Although this elite group is geographically dispersed, the key specialists within an international or a national invisible college network appear to perform the same type of role as do technological gatekeepers. In modern times, these groups have become very active as there is facility of computer-mediated communication technologies like email, fax, teleconferencing, etc. The invisible colleges thus helps scientific community seeking details related to a query with the help of top experts in the field.

The invisible college's phenomenon emerged in the form of a network of intellectuals exchanging ideas initially by post. This is an alternative model to that of the learned journal, dominant in the nineteenth century. The invisible college idea is exemplified by the network of astronomers, professors, mathematicians, and natural philosophers in 16th century Europe. Prominent scientists communicate information and ideas to each other in an invisible college. One of the most common methods used to communicate was through annotations written in personal copies of books that were loaned, given, or sold from person to person.

The term now refers mainly to the free transfer of thought and technical expertise, usually carried out without the establishment of designated facilities or institutional authority, spread by a loosely connected system of word-of-mouth referral or localized bulletin-board system, and supported through barter (i.e., trade of knowledge or services) or apprenticeship. In other words, it is merely an attempt to circumvent bureaucratic or monetary obstacles by knowledgeable individuals and civic groups. Said entities generally feel a need to share their methods with fellow learned men, so to speak, and to strengthen local techniques through collaboration. Members of an invisible college are often referred to as independent scholars who loosely form an association of like-minded people who can come together to share their experience, views and knowledge.

5.8 Technological Gatekeepers

A technological gatekeeper is a well-informed professional in a particular field. Usually some scientists, technologists and professionals in technical or business organisations have a tendency to acquire information from various sources to keep themselves abreast of the

developments in their field and to disseminate the information to a person or group who may be interested in that information. Thus, a technological gatekeeper can be defined as a key person, who facilitates information transfer by informal communication. This is enabled by acting as some kind of 'Intermediary' between information source and information seeker.

With the informal communication system of the organizations, certain individuals play a key role in organisational communication, linking various hierarchical levels, or departments and there by act as gatekeepers of valuable information/data emanating from outside organizational boundaries. This kind of informal system works successfully in situations where formal communication systems are not functioning effectively. The employees are thus informed of problems, issues affecting them and the possible solutions to overcome the problems. The individuals involved in this kind of informal communication system are referred to as technological gatekeepers.

Technological gatekeepers are middle level professionals working in industries or other organizations. These are the personnel who play a key role between available information and those seeking information. The technological gatekeepers are named so as they open gates of knowledge to other colleagues in the same organization. They have excellent communication skills, higher opportunities of expose to professional, scientific and industry related literature, attend more conferences, have better interaction with professionals in other organizations, and are better equipped to handle complex technical problems or issues. In organizations where professionals require technical information, the technological gatekeepers are found to be very effective, as many times, the libraries or their services are unable to provide solution to a large number of complex technical queries and these persons have usually answers to all queries.

A technological gatekeeper is not only a person who in well informed in own field of activity and has better access to information from various sources from and outside the organisation. But such persons also keep themselves abreast of the developments in the field, maintain good relationships with all staff members and disseminate information to other colleagues who may be interested in the particular information. They are thus called technological gatekeepers as they open gates to provide access to knowledge or information to others.

5.9 Patent Attorneys

Why do some individual users or scientific research organisations need a patent attorney? As an inventor, a scientist or researcher knows the scientific and technical knowledge involved in his/her invention. However, the preparation of a patent application and conducting proceedings with any patent office requires knowledge of patent law and rules and the patent office's practices and procedures.

Every scientist certainly has the right to prepare his/her own applications and file them and conduct own proceedings. However, without having the knowledge that a patent attorney does have may get the scientist into considerable difficulty. Many times, a scientist may even be granted a patent, only to find out later that it does not adequately protect his/her invention. Therefore, most inventors usually employ the services of a registered patent attorney or patent agent.

The patent attorneys are legal experts on patents and deal with all legal aspects of patents. They assist the inventor in drafting the patent application, filling the application, obtaining required licenses, etc. As the patent attorneys have experience of handling all aspects of patents, they are the most suitable persons to answer technical queries that relate to patents.

5.10 Industrial Liaison Officer

In the industrial sector, especially in the small scale industries, an officer on the staff, usually referred to as an Industrial Liaison Officer (ILO), is responsible for establishing and maintaining a liaison between the industry and its sponsors, innovations facilitators and scientists/researchers. Each industry needs to decide during the start-up and development phase how they are going to carry out this function, guidance is provided as to the key requirements, challenges, opportunities and benefits to the industry of this position. Some industry liaison officers also consult with government and acquire government contracts for their industry. These officers provide particularly the preliminary information needed to put a firm on the right track and for information which needs to be given personally and supported by practical advice in order to be fully effective. They visit firms, explore their needs and problems and help them to find solutions, sometimes directly on the spot, more often by putting them in touch with specialized sources of information and assistance or refer to some other specialists.

5.11 Common Persons

There are a lot of facts referred to as 'Common Knowledge' for which formal information sources need not be consulted. For this, in our day to day activities, a lot of persons provide us assistance in many ways. The kind of information one may require be about someone's family background, or first-hand information on a place of tourism or way to a particular destination or details concerning a religious function/ceremony, etc. In many families and even in villages, elderly persons, although illiterate, are usually a reservoir of knowledge when one is pursuing historical research. Some other acceptable examples of common knowledge are related to general common knowledge, well known historical facts, known date and time of some events, etc. Thus we find that common men also act as an important source of information in many situations.

Examples of common men who act as sources of information are: our elders in the family, colleagues and friends, priests, village headman, postman, receptionists, etc.

6. Mass Media as Source of Information

Mass media is a means of communication of information through broadcasting and telecasting or a combination of these two for the masses, which is more effective than any documentary sources. The medium by which news and information, etc. is communicated to general masses, that is, the public, is called mass media. Mass media includes press (newspapers, magazines, etc.), radio and television. Of these, radio and television have been found to be most effective. Main advantage of television is that it brings sight, sound and action directly to users in their homes. Radio stations located at various regions in the country broadcast news (local, regional, national and international), entertainment, musical, sports

and educational programmes of various kinds. Radio stations broadcast suitable programmes for all groups of people including men, women, children, farmers, professionals and others. Similarly television is most popular mass media offering range of programmes through hundreds of channels. You must have noticed that there are special television channels devoted exclusively to telecast news, movies, music, sports and games, religious discourses, tourism and travel, fashions and styles, wildlife, history, science and technology.

Mass media is media that is intended for a large audience. It may take the form of broadcast media, as in the case of television and radio, or print media, like newspapers and magazines. Internet media can also attain mass media status, and many media outlets maintain a web presence to take advantage of the ready availability of Internet in many regions of the world. Many people around the world rely on this form of media for news and entertainment, and globally, it is a huge industry.

6.1 Press/Media

The news agencies and newspaper publishing houses are referred to as press. The newspaper publishing houses bring out newspapers, weeklies, bi-weeklies, monthlies and annual publications. They usually maintain all the back issues in their libraries or archives. The back issues are an important source of information not only for news items but also for photographs, special features, video clips, etc. For users requiring information while conducting historical research, preparing biographies, etc. these sources are highly valuable.

6.2 Broadcasting Stations

Radio and television broadcasting stations are also valuable sources of information as these days these cover speeches, features, summaries, debates, discussions, etc. by prominent personalities. The broadcasting stations usually keep all their record in CDs, VCDs and DVDs of all the events. These are maintained properly in the form of a media library and are available for use as and when required. Presently a lot of private channels are also operating in this area and some examples are CNBC, NDTV, ZEE TV, STAR TV, AajTak, etc.

7. Internet as Source of Information

Internet with its many other uses is also used as a source of information on almost any subject imaginable. Thus it has become the best source of information as there is everything on which we can find information by browsing the internet, whether about science, technology, mathematics, history, countries, sociology, medicine, engineering, sports, games, music, movie, jobs or education. Also with online encyclopaedias and different sites on various subjects to gather information about a topic is a very easy task.

Internet is interactive digital media and is different from the traditional media such as print and television. World Wide Web (WWW), also called Web, is collection of websites on the Internet. WWW offers information on any topic you want. Whatever the topic may be, Web always has some website on that topic. The Web gives latest news related to any event from any part of the world, and very often making available the news before it is broadcast by other media. The Web is a source of information for companies, business houses, educational

institutes, government departments and individuals. Many educational institutes in India and abroad put useful information on the Web, such as about their activities, courses offered, fee and other details. On this media, individuals can interact, exchange ideas, share information, provide social support, and conduct business. Using Web you can do shopping, banking, purchase airlines, rail tickets, and even cinema tickets, play games, watch movies, and listen to music and do many more things. In modern times, Internet allows greater flexibility in working hours and location, especially with the spread of high-speed connections. The Internet can be accessed almost anywhere by numerous means, including through mobile Internet devices.

8. Summary

In the modern times, information is available from a variety of sources including non-documentary sources. In this Module, we have learned about the importance of sources of information. The sources of information can be documentary or non-documentary. Non-documentary sources of information are those sources which are not recorded in any form. The non-documentary sources of information can be defined as those sources and resources of information that are not contained in any document. These sources comprise humans, organizations, mass media (like television and radio), and internet.

Besides published and electronic information, we have studied that organizations are also a valuable source of information. The organizations as sources of information include academic institutions, government ministries and department, research and developmental organizations, societies, publishing houses, international and national agencies, etc. The human resources are the experts, consultants, resource persons, extension workers and even the common human beings. Mass media is media that is intended for a large audience. It may take the form of broadcast media, as in the case of television and radio, or print media, like newspapers and magazines. Lastly, Internet serves as a source of information on almost any subject imaginable. With the evolution of several search engines we can simply open a web browser and find information at the click of the mouse.

Finally, the main disadvantage of non-documentary sources of information is that these involves high cost when distance between the people who require information and who have it available is large and that it also demands the use of highly sophisticated techniques, i.e., computer system, video conference, telephone, etc.

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