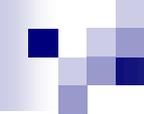






# Lectures on Reference & Information Sources

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## ■ **Meaning & Definition of Reference:**

Reference means an indication, referring to a document or any other item.

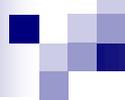
### ■ **Source means:**

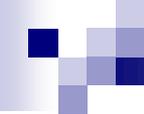
Any publication which is used to obtain authoritative information.

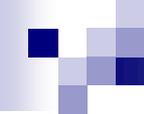


## ■ Reference Service:

Reference service is a personal service to each reader in helping him to find out the documents answering his interest at the moment pin-pointedly, exhaustively and expeditiously.

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- Reference service, sometimes referred to as ‘reference and information services’ or ‘reader services’, is personal assistance provided to users in the pursuit of information (Bunge, 1999, p. 185).

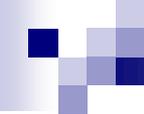
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- Reference service is the provision of information or personal assistance in finding required information by the librarian to users (Hutchins, 1944, p.10; Rothstein, 1964 p.37; Bunge, 1999, p. 185).

- 
- Personal assistance is the essence of reference service and is the fundamental role of the reference librarian. The goal of the reference librarian is to meet the information needs of the users (Bunge and Bopp (2001, p.3).

# Why Reference Service?

## ■ Importance

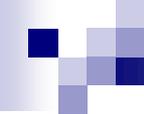
- According to Lovis Shore “Reference Service is as important as intelligence in the army.”
- Reference Service can make or mar the reputation of the library.
- Reference service helps the library to become popular in the society.

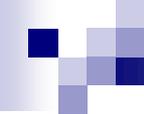


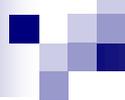
## ■ Purpose of Reference Service

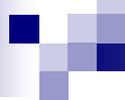
- Libraries provide reference services in order to mediate between users' information needs and the information resources accessible to the users through the libraries.

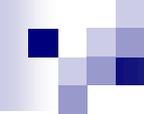
- 
- Reference services continue to exist in libraries because the users are usually not conversant with how to access information, and how to use information resources.

- 
- Reference services may range from a minimal level of assistance to the users in finding information on their own to the actual provision of information to the users (Smith, 2010, p. 4485).

- 
- Reference services were traditionally offered by a reference librarian at the reference desk within the library building during face-to face meeting between the user and the librarian, over the telephone, by fax and through mail.

- 
- The reference librarian used a library's print reference sources to provide required information to the users. Many libraries started to set up a separate reference section, which contained reference material and was staffed by a reference librarian.

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- Smith (2010, p. 4485) notes that, “The work of reference librarians includes selection of an adequate and suitable collection of reference sources and arrangement and maintenance of the collection so that it can be used easily and conveniently”.



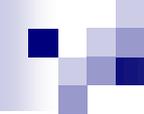
## ■ Historical Concept of Reference Service

Historically, the concept of reference service was introduced by Samuel Swett Green of the Worcester Public Library in Massachusetts, USA in his 1876 paper on 'Personal Relations between Librarians and Readers' (Tyckoson, 2003, p.13;).

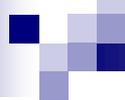
## ■ Components of Reference Service

Green (1876) identified four components of reference service which are considered as the basic functions of reference service even today:

- Instruct the reader how to use the library
- Answer the reader's queries

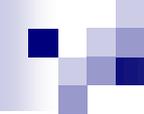
- 
- Aid the reader in the selection of good reading material; and
  - Promote the library within the community.

The purpose of the first function, instruction, is to help library users to learn how a library is organised so that they can benefit from its resources.



The second function, answering the user's questions, is considered the most important part of reference service in recent years.

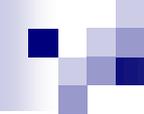
Green's third function of reference service, aiding the reader in the selection of good library materials, serves as the link between the reference librarian's knowledge of library resources and the user's needs.



## ■ Major Elements of Reference Service:

Reference service consists of three major elements:

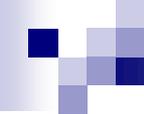
1. Information services that involve either finding the required information on behalf of the users, or assisting users in finding information.

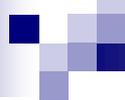
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2. Instruction in the use of library, consisting of helping users learn the skills required to use library resources and services.
  3. User guidance, in which users are assisted in selecting the most appropriate information sources to meet their information needs.

# Major Types of Reference Service

Different types of references are:

- Ready reference service,
- Reader's advisory service,
- Research consulting,
- Instruction service,
- Bibliographic verification
- Interlibrary loan.

- 
- In ready reference service, various ready reference sources are made available on reference desk and used for answering reference queries of the users.

- 
- Reader's advisory services refers to the use of various reference services of the library such as OPAC, reference books, searching books from the shelves, how to get library membership etc etc.

- 
- Research services are provided to the users to educate them in finding required research material and writing up research reports, setting research methodology, consulting research material etc.

# Six Major Functions of Reference Section

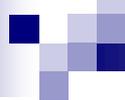
## ■ Supervision function

Supervision function is performed to monitor the different services of the library which are being performed for the library users i.e. information desk, telephonic queries, files, inter-library loan, reference collection.



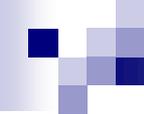
## ■ Information function

Information function refers to the provision of right information to the right users at the right time.



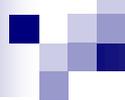
## ■ Guidance function

Guidance service refers to the reader advisory service. Directing the users to the relevant section and information sources in the library.



## ■ Instructional service

The main purpose of this service is to facilitate the users in using the library. The reference staff help the users how to use different services of the library. i.e OPAC service, Card catalogue service etc.



## ■ Bibliographic Function

Bibliographic function refers to the provision of bibliography service to the users. It facilitates the users to provide them bibliography of required books on the subject.

## ■ Appraisal Function

- In appraisal service, the reference section takes appraisal of different library sections to see whether each function is working well or not. In appraisal function, it is also monitored that staff in different section of the library is performing their duties properly or not.

# What is Reference Book?

- **Meaning & Definition:**

- It is a type of a book that is designed by its arrangement and treatment to be used for a specific item of information rather than to be used thoroughly.

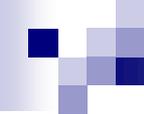
- 
- It is different from general book and text book because it is not read thoroughly.
  - It is only used for specific information need.
  - It is not issued to the library users.
  - They are only allowed to use it within the library building only.

# Evaluation Criteria of a Reference Source/Material

The following criterion is used to evaluate any reference material:

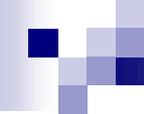
## ■ **Authority:**

It refers to the reputation and experience of author who has written that material. It is evaluated that the author is well-reputed in the field or not.



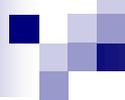
## ■ **Scope:**

It is observed that how many topics, words have been covered in any reference source. Either it is covering multiple disciplines or single subject.



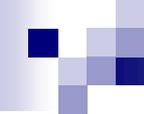
## ■ Treatment:

Information and facts provided in any source are accurate or not. Is there objectivity or biasness? Explanations of difficult terms have been provided or not. Is there any important information on the subject that has been concealed?



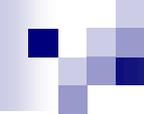
## ■ Arrangement:

Is the information provided in that source has been arranged in proper sequence? Can we search it by author or by subjects or chronological order?



## ■ **Format:**

We evaluate the format of the reference material to see whether the binding is appropriate or not. We check the shape and material used to structure the reference material in binding form.



## ■ **Special Features:**

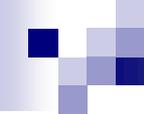
Special feature of a book refers to the additional information that has been provided. It may be in form of census data, telephonic directory, flags of different countries, name of vegetables, etc.

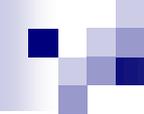
# Reference Librarian

- Reference librarian is an official who possess professional qualification in the field. Having master degree in library and information science and well trained and educated to provide information services to the users by using different sources of information. He is a person who is deputed in reference section of a library to offer reference services to the users.

## ■ Qualities of a Reference Librarian

1. He should possess professional education in the subject.
2. Have adequate knowledge of various subjects.
3. Expert in using information technology to find the required information available in online sources of information.
4. He should be a scholar and well trained in helping the research students to successfully conduct a research work.

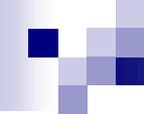
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5. He should possess encyclopedic mind.
  6. He should be well aware about the latest trends and developments in the reference service.
  7. He should possess knowledge of two or more languages.
  8. He should have good knowledge of reference sources of information.

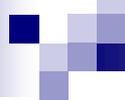
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9. He should be well versed in communication and understanding human behavior.
  10. He should be intelligent and wise to answer the telephonic reference queries of the users.
  11. He should have adequate knowledge of online reference sources.
  12. Reference librarian should be trained and capable in using the Internet.

# Definitions of Digital Reference Service

## ■ Historical Background:

The foundations of modern reference work are laid by Samuel Swett Green in 1876. From that, the practices engaged in reference service have been changed, but central aim of reference service is as it is i.e. to answer and provide exact resources to users for their query.

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- The terms “Digital Reference”, “Internet Information Services”, “E-reference”, “Virtual Reference”, “Real Time Reference”, “Live Reference” and “Chat Reference” are used to describe reference services that utilize computer technology in some way.

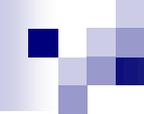


- According to **James**,

“Digital reference service is provision of direct, professional assistance to people who are seeking information, at the time and point of need.”

- **Smith** defines,

- “Emphasis on use of print as well as digital reference services – provided over the internet and can involve the use of both print and digital resources.”



■ **Hirko** defines,

“A library service that provides answers to computer questions via electronic means such as e-mails, web forms, interactive chat and application sharing” (Digital Reference Services, accessed through Google)

- **Digital Reference Service** may be defined as, “The provision of reference services involving collaboration between library user and librarian, in a computer based medium. These services can utilize various media, including e-mail, web forms.

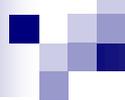
## ■ Objectives of Digital Reference Services

There are various reasons and benefits of providing digital reference services. These vary from library to library. Some of the objectives are:

1. To provide excellent and fast delivery of information service.

- 
2. To assist users in their educational and research related needs electronically.
  3. To provide digital reference service to the individual users.
  4. To help users in searching exact information.
  5. To save the time of users as well as library staff.

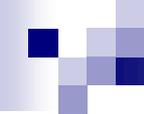
5. To save the time of users as well as library staff.
6. To save space and enhance number of digital resources.
7. To make digital information search sharing for users.
8. To promote remote access towards information.
9. To avoid physical visit to library and help the users automatically.

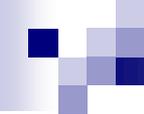
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9. To educate users regarding digital resources of information and search techniques
  10. To extend digital reference service to users who are physically enabled to visit library.
  11. To allows users to contact the librarian in online information environment and in real time 24/7 so that they can get required information at any time and from any place.
  12. To satisfy user information needs in better way.
  13. To reach online information users who are otherwise cannot be contacted.

# Major Types of DR Service

## ■ E-mail

- Users can send their queries through e-mail either by clicking on the e-mail address given on the library webpage which activates software for e-mail, or they can send the questions to the library's e-mail address by using their own software. E-mail is regarded as the most popular form of communication as it is widely used, and it does not require extra software.

- 
- E-mail based reference service is cheap, and easy to implement and access. It helps to reduce the psychological barrier which prohibits some users from asking for assistance physically in the library. The reference librarian can attach and send data files to the users through e-mail.

- 
- Another advantage of e-mail reference is that answers to particular questions can be stored in a knowledge base for future use. E-mail reference allows reference staff to take time to formulate answers to questions, they can provide better responses.

## ■ Web Form Service

- A web form is accessed from the library homepage or the reference webpage and is sent back to the library after having been filled in by the user. The reference librarian usually provides an answer to the user's question through email, phone, fax or post.

- Web forms usually contain some compulsory fields, for example for personal information and contact details, which need to be filled in by the users in order to provide them with answers.
- The users are also asked to provide some additional/optional information through web forms which help in identifying their information needs. Web forms help users to provide more details about their information needs which assist the reference staff in identifying their requirements more accurately.

## ■ Chatterbots

- Chatterbots are created by computer software which analyse the questions asked by users for keywords, match the keywords with particular answers already stored in the knowledge base and provide information to the users. In this form of DRS, the users communicate with an interactive database consisting of a wide range of pre-arranged information instead of a reference librarian.

- Chatterbots are technically similar to full-text search engines, and are represented by pictures (so called avatars) which portray the illusion of an online chat. The user fills in the relevant fields with his/her query and receives a response immediately.
- Chatterbots offer answers to particular questions, and are essentially FAQs which simulate a chat using artificial characters. The most popular of this type of service is Ask Jeeves.

## ■ Synchronous Transactions

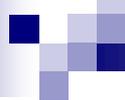
- A synchronous reference transaction is one that occurs at one period of time. It involves communication that takes place in real time (Berube, 2003 and Roesch, 2006).
- Live interaction between the user and the librarian occurs in this reference transaction and the user's question is answered immediately.

- It is also called live reference or real-time reference. Synchronous DRS can be offered through the following means.

This service can be provided through different means such as: Web chat, Instant messaging, Voiceover Internet Protocol, Video Conferencing etc.

# Meaning & Definition of Bibliography

- A bibliography is a list of works (such as books and articles) written on a particular subject or by a particular author.
- Also known as a list of *works cited*, a bibliography may appear at the end of a book, report, online presentation, or research papers.

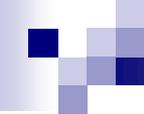
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- Students are taught that a bibliography, along with correctly formatted in-text citations, is crucial to cite the research work and avoid copyrights violation.

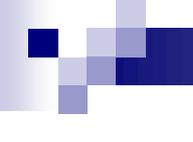
## ■ Purpose of Bibliography

- Purpose of preparing bibliography is to assist the users in identifying and assessing related books and material of their interest to complete the education and research work. It also provides them related and up-to-date information according to their field of interest.

## ■ Library Catalogue & OPAC

- Library catalogue is a complete list of books, maps or sound recording that has been arranged according to a defined plan.
- The word catalogue has been derived from Greek words i.e. Kata and Logos. Kata means according to or by. Logos means word by word, reason, logic or plan.

- 
- So catalogue is a list of library material that has been organized according to some logic or some reasons.
  - There are various types of bibliography e.g. enumerative bibliography, analytical bibliography, historical bibliography, national bibliography, international bibliography and universal bibliography.

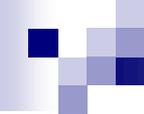
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- OPAC (Online Public Access Catalogue)
    - Online Public Access Catalogue has been developed to offer online searching of library material. The use of computer in libraries has made it possible to develop a computerized and make it available for library users to search the bibliographic information via computer.

- 
- OPAC has also made it possible to develop a Web OPAC by using Internet. Library automation systems offer this service. OPAC offers searching option for library users to conduct keyword search OR advance search to find the items of information to search in the library.

- By using OPAC, library users can get up-to-date information about library collection. In shared catalogue, library users can also get information about the items available in other libraries. Some OPAC systems offer the users to hold on the required item of information.

## ■ History of OPAC

- The history of OPAC can be traced back to early 1960s. Although an experimental system was existed in early 1960s, but the first large scale online catalogue was developed at Ohio State University in the year 1975 & the Dallas Public Library in the year 1978.

- 
- In the year 1980, the number of online public access catalogue grew both in terms & numbers as well as features & functionalities. The OPAC's of nineteen eighties (1980s) provided improved search mechanisms that are basic or simple search & Boolean search (by choosing operators it has , i.e. And , Or & Not) as well as the ancillary functions like , circulation that is check-in & check-out etc.

- At the same time libraries began to develop applications to automate after routines of the libraries including acquisition, cataloguing, circulation of books & serials control. These applications collectively known as ILMS (Integrated Library Management System) which include an online catalogue as a public interface to the library's inventory.

# What is an Abstract?

- An abstract is a condensation that provides succinctly and precise information about purpose, scope and major findings of a document.
- An abstract is different from an extract, an annotation or a summary. An extract is an abbreviated version of a document created by drawing sentences from the document itself, whereas an abstract, although it may include words which appear in a document, is a piece of text created by the abstractor rather than a direct quotation from the author.

# Types of Abstract

Menou and Guinchat suggest that the various types of abstract can be distinguished by:

- ***Length of Abstract:*** which normally ranges from a few dozen to several hundred words, and is occasionally over a thousand.
- ***The Amount of detail:*** which can differ significantly; certain abstracts (known as *indicative abstracts*) simply provide a brief summary, whereas others (known as *informative abstracts*) include a varying number of points that are likely to interest the user.
- ***Inclusion of Judgments or Critical analysis:*** which may amount to some form of evaluation of the document

# Types of Abstract.....

- ***Whether the indexer deals with the whole document*** or only with aspects that are likely to interest the user (known as slanted abstracts)
- ***Status of the Indexer:*** *whether the author of the abstract is the author of the original document or some other person.*
- ***The language used:*** which may be a natural language or a more formalized (artificial) language.

# Types of Abstracts...

Some information scientists have described the followings types of abstracts:

- **Abstract by writer:** Includes, author, subject experts OR professional abstractors.
  
- **Abstracts by purpose:** These include:
  - Indicative
  - Information
  - Critical
  - Special Purpose in Mind OR Slanted

# Qualities of an Abstract

- Conciseness
- Preciseness
- Self-Sufficient (completely understandable)
- Objectivity (avoid personal interpretation or criticism)
- Brevity (much shorter than the original document)
- Accuracy (exactness, error free)
- Clarity (understandable, clarity of expressions, avoiding all sorts of ambiguities)
- It should be a self-contained unit

# Qualities of an Abstract.....

- Enable the users to identify the main theme
- Be capable of being used as secondary source of information
- Be able to be used as retrieval aid in an automatic information retrieval environment
- Not repeat the information that is obvious from the title
- Avoid redundancy and repetition
- Avoid using of abbreviation
- Be written in a clear language

# What is Automatic Abstracting?

Automatic abstracting refers to the use of any system/software that generate abstract from the original document.

- Automatic abstracting systems are based on contextual clues of sentence importance through some typical words:
- In this method some typical word class types (such as 'introduces', 'examines', 'investigates' and 'developed') are identified and sentence templates having some typical words are used for abstracting.
- When a particular sentence fits into the prescribed sentence templates, a complete sentence score is computed by adding up the prescribed weights for the sentence components that match the corresponding template specifications.

# What is Automatic Indexing?

- Automatic abstracting system is based on a sentence extracting system.
- Sentence extracting consists of choosing a number of highly scoring sentences, or choosing a certain proportion of text sentences exhibiting the highest sentence score in a document.
- In this system parts of text sentences or paragraphs are selected automatically based on some linguistic and statistical criteria to produce the abstract or summary of the document.

- SALOMON (Summary and Analysis of Legal texts for Managing Online Needs). It automatically summarizes legal texts written in Dutch language.
- RAFI (Resume Automatique a Fragments Indicators). It is an automatic text summarization system that transforms full text scientific and technical documents into condensed texts.
- TEXTNET is a software designed to provide assistance to abstractors. Purely automatic abstracting systems do not always produce useful results.

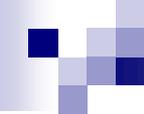
There is a need of hybrid abstracting system in which some tasks are performed by human abstractors and others by an abstractor's assistance software.

## ■ What is Indexing?

- An index is a list of names, terms, topics with their exact pagination to find that term, topic and name in a given material.
- It is a sequential arrangement of material given in alphabetical order.
- It is something that directs attention of its users towards some facts or information.

## ■ What is Indexing?

- Indexing can be defined as a data structure technique that help you to quickly retrieve records from an information source. It is based on the same attributes on which the Indices are usually done.
- It is a process by which we identify different terms from a material with exact pagination to retrieve that terms from a given source.



We can make index of any information source/material. In practice, however, it is usually developed for books OR voluminous material to identify the topic of interest in that work instead of searching the needed information on each page of that book OR material.



## ■ Types of Index

- Bibliographic and database indexing.
- Genealogical indexing.
- Geographical indexing.
- Book indexing.
- Legal indexing.
- Periodical and newspaper indexing.
- Pictorial indexing.
- Subject gateways.

# HEC National Digital Library

- HEC National Digital Library (DL) is a programme to provide researchers within public and private universities in Pakistan and non-profit research and development organizations with access to international scholarly literature based on electronic (online) delivery, providing access to high quality, peer-reviewed journals, databases, articles and e-Books across a wide range of disciplines (HEC Website, )

- The e-books support programme will allow researchers to access most of the important text and reference books electronically in a variety of subject areas. Around 75,000 number of electronic content has been made available through the Digital Library Programme.

## ■ Services by HEC

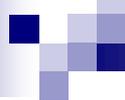
□ HEC is offering numbers of services for its recognized universities to cater the educational work and research needs of the faculty and students. Followings are its various services:

1. E-Databases
2. E-Books
3. Open Access Resources
4. British Documents Delivery Services



## ■ E-Database Services

□ <http://www.digitallibrary.edu.pk/Resources.php>



## ■ E-Books Service

□ <http://www.digitallibrary.edu.pk/books.html>

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- Open Access E-Books & E-Journals
    - <http://www.digitallibrary.edu.pk/Open.htm>



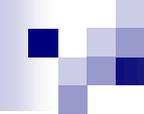
- British Library Document Delivery Service

- <http://www.digitallibrary.edu.pk/british-library.php>

# Documentary Sources of Information

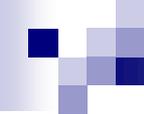
There are major three types of documentary information sources:

1. Primary Sources of Information
2. Secondary Sources of Information
3. Tertiary Sources of Information



## ■ Primary Sources

- These are first published record or original research and development
- Description of a new development or an idea
- Provides original and fresh ideas



These sources provide information are helpful in following ways:

1. Provide information about new development
2. New ideas
3. Fresh information
4. Save the time of the researchers



E.g. journals, thesis, standards, patents,  
research monographs, research reports,  
research journals, dissertations etc etc.



## ■ Unpublished Primary sources include:

- Coins
- Stamps
- Diaries
- Note-books
- State paper
- Portraits
- Oral history

## ■ Secondary Sources of Information

- These sources are compiled from primary sources or refers towards these sources
- Secondary sources provide modified information
- These are re-organized and re-packed
- These are helpful to use the information available in primary sources.

## ■ Types of Secondary Sources

- Indexes
- Abstracts
- Treatise (compilation of information on a subject that assist the researchers in conducting research work. It provides information about facts.
- Indexing Periodicals (these provides information about titles of various articles published in primary sources.

- Abstracting periodicals (these provides information about summaries of various articles published in primary sources)
- Reviews (it aims to co-relate the literature published in primary sources. It helps the researchers to understand any subject and its related concepts.
- Bibliography (it is a compilation of information about various sources that may include books, journals, articles etc. It helps the researchers in assisting primary sources)

## ■ Text Books

- These are considered as institutional books to study any subjects referred by the institutions.
- These help to develop a thorough understanding about the subject.
- These are developed for teaching purposes.

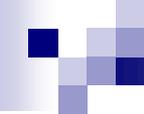


## ■ Translations

- These are also a type of secondary sources. These are developed from primary sources after translating them.

## ■ Reference Books

- Reference books are also considered as secondary sources. These are used for reference purposes and called as ready reference sources of information. These include dictionary, encyclopedia, handbooks, manuals, guide etc.



## Tertiary Sources of Information

Tertiary sources of information are regarded as third form of information sources. These are prepared from secondary sources and assist the users in using secondary sources. These include bibliography of bibliographies, directory of directories.

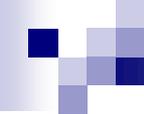
# Non-Documentary Sources

- These sources form a substantial part of communication of information. Users study these sources particularly in the field of science and technology.



These sources provide information which are not provided by other types. There are two types of these sources:

- Formal sources
- Informal sources

- 
- Formal sources include research organizations, societies, industries, govt. departments and consultants.
  
  - Informal sources include discussion with a colleagues, professional meetings, instructions from senior officials etc.

# Secondary Sources of Information (Types)

- Dictionary
  - Dictionary is a book that explains words of a language, terms of a subject or syllabication. It provides meaning of different words and their pronunciation.

## ■ Thesaurus

- It is also a form of dictionary. However, it contains more words than a dictionary. It is also called a treasury of knowledge. It has alphabetical arrangement.

## ■ Encyclopedia

- It is a work that provides information on all branches of knowledge. It provides enough information on a topic to understand it comprehensively. It is also called a house of knowledge. There are different general encyclopedias as well as subject encyclopedias.

## ■ Handbook

- Handbook is a compilation of a miscellaneous information. It provides information in compact and handy form. It is easy to carry out and use at the time of need. It provides information about principles, procedures and methods.

## ■ Yearbook

- It gives information about the interesting and important events that took place in a year. Any particular information or event that happened in any year can be searched out from this source of information. It is arranged in chronological order. It is published on annual bases. It provides statistical data as well as descriptive information.

## ■ Bibliographical Sources of Information

- Bibliographical source of information are those sources that provide information about books. Library catalogue and Online Public Access Catalogue is a good example of bibliographical sources of information. There are also various catalogues prepared by the publishers to provide bibliographical data to the users to help them in selection of books.

## ■ Geographical Sources

- These sources of information help the readers to know about different geographical locations and places of interests in any country. These sources also help in identifying different visiting places, weather environment, population in those areas, information about various hotels in surroundings etc.

## ■ Directory

- It gives information about different offices, organizations, telephonic addresses and contacts of persons etc. It is arranged in an alphabetical order to find the required information in easy way. It is not essential that the word of directory should be appeared in the title of directory.

## ■ Abstract & Index

- An abstract is a condensation that provides succinct and precise information about any topic or research work. It usually contains information about purpose of that document, objectives, development methods, results etc. it is widely used by the researchers for their research work.

- An index is a list of terms, names or places arranged in an alphabetical order with their exact page number where that term, name exists in any source. The basic purpose of developing an index is to save the time of the users in finding required information from any document.

# Reference Theories

- Reference theories provide information about the process of reference service to be provided in reference section of any library.
  - Conservative Reference Theory
    - The followers of this theory are of the opinion that library user should be directed only when he comes in the library to find any information. They support their this point of view that in this way they can train the library user to find the required information themselves and don't depend on library staff.

## □ Liberal Theory

- As clear from the word liberal, the supporters of this theory are of the opinion that whenever library users come to the reference desk they be provided maximum personal assistance in getting the required information from the library. In this way, they will appreciate the library services and consult the library whenever required any information.

## ■ Moderate Theory

- This theory is a compromise between liberal theory and conservative theory. The followers of this theory are of the opinion that mid way should be adopted while providing information services to the users. They either be directed only OR maximum personal assistant be given to them.

# Names of Various Reference Sources

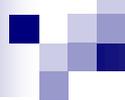
## ■ Dictionaries

- Funk and Wagnals New Standard Dictionary of English Language.
- Macgra-Hill Dictionary of Scientific & Technical Terms
- Harrod's Librarians Glossary
- ALA Glossary of Library Terms



## ■ Encyclopedia

- New Encyclopedia Britannica
- Encyclopedia of Library & Information Science
- International Encyclopedia of Social Sciences



## ■ Yearbook

- Pakistan Almanac
- The Europa Yearbook



## ■ Bibliographical Sources

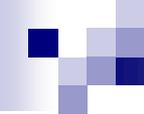
- International Who's Who
- Biographical Encyclopedia of Pakistan
- Who's Who in Library and Information Science in Pakistan



## ■ Geographical Sources

- Webster's New Geographical Dictionary
- A Travel Guide to Pakistan
- Pakistan Places of Interest

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- Name of Directory
    - World of Learning
    - Stateman's Yearbook



## ■ Bibliographies

- NBP (National Bibliography of Pakistan)
- PNB (Pakistan National Bibliography)
- INB (Indian National Bibliography)



## ■ Index

- Index Islamicus
- Index Medicus



## ■ Current Reference and Information Sources

- Asian Recorder
- Annual Register, World Event



## ■ Name of Databases

- MEDLARS (Medical Literature Analysis & Retrieval System)
- BIOSIS (Bioscience Information System)
- COMPEDEX (Computerized Engineering Index)
- INSPEC (Information Service, Physics, Electro-technology, Computer & Control)



■ Good Luck