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TEACHING MATERIAL ON

Library Science

(Department of Library Science)

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Unit 1: Changing Role of Libraries

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Objectives

After studying this unit, you will be able to:

- Understand the changing role of libraries
- Know the types of libraries resources
- Discuss the changing role of library professional in digital age
- Know about the needs of information.

Introduction

Libraries play a fundamental role in our society. They are the collectors and stewards of our heritage; they are organizers of the knowledge in the books they collect adding value by cataloguing, classifying and describing them; and, as public institutions, they assure equality of access for all citizens. They take the knowledge of the past and present, and lay it down for the future.

Europe's libraries and archives contain a wealth of material representing the richness of Europe's history, acquired over the centuries. These materials cover a range of forms-books, newspapers, films, photographs and maps. By bringing it online, we make it easier for citizens to appreciate their own culture as well as our common European history.

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Library collections in the different countries represent their cultural identities. Language is at the heart of these identities. The internet provides an incredible opportunity to circulate our heritage to advantage and to make it known on a world scale.

Economically, cultural industries and cultural heritage are major sectors of activity. For example, according to statistics collected by the LIBECON study, European libraries employed nearly 337 thousand staff in 2001 and had 138 million registered users. This is almost one third of the entire EU population. This show the social impact libraries have.

1.1 Changing Role of Libraries

The emergence of a vast storehouse of information on the Internet poses a different kind of conundrum Librarians, the traditional gatekeepers of knowledge are in danger of being bypassed, their skills are ignored, their advice unsought. Search engines send user straight to the information they require or so users may think without any need for an intermediary to classify, catalogue, cross-reference, advice on sources.

The location and provision of information services has dramatically changed over the last ten years. There is no need to leave the home or office to locate and access information now readily available on-line via digital gateways furnished by a wide variety of information providers (*e.g.* libraries, electronic, publisher, businesses, organizations, individuals). Information is electronically accessible from a wide variety of globally distributed information repositories.

Notes Information is no longer simply text and pictures. It is electronically in a wide variety of formats, many of which are large, complex (*i.e.*, video and audio) and often integrated (*i.e.*, multimedia).

Traditional Library

Libraries are where the access points such as, library catalogues as well as library collections are print based and their management is by and large manual.

Automated Library

A library where access points and housekeeping operations are computerized is called an automated library. The graphic records are still print-on-paper publication.

Electronic Library—Digital Library

The access point as well as the graphic records are in electronic digital form when these electronic digital libraries are connected via various networks, particularly the INTERNET, this is called virtual library.

Digital library is not only digitization of physical resources, but also thoughtful organization of electronic collection for better access. Such organization provides coherence to a massive amount of shared knowledge base. While the method of access provides convenient information retrieval for a wide range of global user. Essentially a digital library deals with organization and access of a large information repository. In all probability, digital libraries are likely to augment traditional libraries, such as an on-line card catalogue augments, rather than strictly replacing, a book collection. The

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reason for this could be than the digital medium tends to be better for searching and the physical medium better for reading. Lets us know about digital library and the skills required to build up digital collection.

According to Wieder hold **"**A digital library is popularly viewed as an electronic version of a library where storage is in digital form, allowing direct communication to obtain material and copying it from a master version.

"Digital Library is a combined technology and information resources to allow remote access, breaking down the physical barrier between resources".

Winensky viewed that 'the digital library will be a collection of distributed information services, producers will make it available, and consumers will find it through the automated agents.'

Digital Library is a "Collection of digital object (text, video, audio) along with method for access and retrieval, and also for selection, organization, and maintenance (from the point of view of librarian).

"The digital library is not merely equivalent to a digitized collection with information management tools. It is also a series of activities that brings together collections, services and people in support of the full life cycle of creation, dissemination, use and presentation of date, information and knowledge.

Advantages of Digital Library

Digital library has certain characteristics, which make them different from traditional library. It has expansive and accurate system of searching with large volumes of text, image and audio-video resources. Digital libraries do not need physical space to build collection and it can be accessed from anywhere, any time. Different people can access same source at the same time.

The advantages of digital libraries are mentioned herein below:

- Preserve the valuable documents, rare and special collections of libraries, archives and museums.
- Provide faster access to the holding of libraries world wide through automated catalogues.
- Help to locate both physical and digitized versions of scholarly articles and books through single interface.
- Search optimization, simultaneous searches of the Internet make possible, preparing commercial databases and library collections.
- Offering online learning environment.
- Making short the chain from author to user.
- Save preparation/conservation cost, space and money.
- Digital technology affords multiple, simultaneous user from a single original which are not possible for materials stored in any other forms

Disadvantages of Digital Library

New technology has brought many advantages but simultaneously it also has certain disadvantage

- Costly affair
- Technology obsolescence (Hardware and Software)
- Storage media relate
- Dominance of data creators and publishers

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- Trained manpower
- User education and training
- Security against hacking and sabotage.

Self Assessment

Fill in the blanks:

1. The statistics collected by the ..... study suggest that European libraries employed nearly 337 thousand staff in the year 2001.
2. A library where access points and house keeping operations are computerized is called an ..... .
3. Digital library is a collection of ..... .

1.2 Types of Library Resources

The resources provided by the digital libraries can be classified into in-house resources and external resources. In-house resources are those resources that are stored in the web server locally and made accessible through the network. E-books, course notes, and application notes, etc., are examples of the in-house resources.

The external resources are those materials that are not stored in the web server. An external resource includes online journals, online databases, online e-books, etc., External resources are provided by different publishers-ASME, ACM, IEEE, Oxford University Press Journal (OUP) and many more are there. The publisher provides access to their full text materials by two methods:

(i) Username and password

(ii) Internet Protocol (IP) address based Access Control Method.

1.3 Changing Role of Library Professional in Digital Age

Library in Early Days

The collection of written knowledge in some sort of repository is a practice as old as civilization itself. About 30,000 clay tablets found in ancient Mesopotamia date back more than 5,000 years. Archaelogists have uncovered papyrus scrolls from 1300-1200bc in the ancient Egyptian cities of Amarna and Thebes and thousands of clay tablets in the palace of King Sennacherib, Assyrian ruler from 704-681bc, at Nineveh, his capital city. More evidence turned up with the discovery of the personal collection of Sennacherib's grandson, King Ashurbanipal.

The name for the repository eventually became the library. Whether private or public, the library has been founded, built, destroyed and rebuilt. The library, often championed, has been a survivor throughout its long history and serves as a testament to the thirst for knowledge.

Literacy Builds Libraries

Early collections may have surfaced from the Near East, but the ancient Greeks propelled the idea through their heightened interest in literacy and intellectual life. Public and private libraries flourished through a well-established process: authors wrote on a variety of subjects, scriptoria or copy shops produced the books, and book dealers sold them. Copying books was an exacting business and one in high demand, because a book's "trustworthiness" translated into quality. An Athenian decree called for a repository of "trustworthy" copies. Though the public library first appeared by

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the fourth century bc, the private library was more prevalent. Aristotle, for instance, amassed a large private collection. Ancient geographer Strabo said Aristotle "was the first to have put together a collection of books and to have taught the kings in Egypt how to arrange a library."

The Great Library

That library, of course, was the Great Library of Alexandria, a public library open to those with the proper scholarly and literary qualifications, founded about 300bc. When Egypt's King Ptolemy I (305-282bc) asked, "How many scrolls do we have?", Aristotle's disciple Demetrius of Phalerum was on hand to answer with the latest count. After all, it was Demetrius who suggested setting up a universal library to hold copies of all the books in the world. Ptolemy and his successors wanted to understand the people under their rule and house Latin, Buddhist, Persian, Hebrew, and Egyptian works-translated into Greek.

The library's lofty goal was to collect a half-million scrolls and the Ptolemies took serious steps to accomplish it. Ptolemy I, for example, composed a letter to all the sovereigns and governors he knew, imploring them "not to hesitate to send him" works by authors of every kind.

The Ptolemies engaged in some unorthodox acquisition methods. Some stories relate that they confiscated any book not already in the library from passengers arriving in Alexandria. Another story tells how Ptolemy III (246-222bc) deceived Athenian authorities when they let him borrow original manuscripts of Aeschylus, Sophocles and Euripides, using silver as collateral. Ptolemy kept the originals and sent the copies back, letting the authorities keep the silver. More traditional means included book purchases from the markets of Athens, Rhodes and other Mediterranean cities. Older copies were the favored acquisitions; the older the better, since they would be considered more trustworthy. At its height, the library held nearly 750,000 scrolls. There must have been duplicates since there weren't that many works.

Much of what is now considered to be literary scholarship began in the Alexandria Library. Funds from the royal treasury paid the chief librarian and his scholarly staff. Physically, books were not what we think of today, but rather scrolls, mostly made of papyrus, but sometimes of leather. They were kept in pigeonholes with titles written on wooden tags hung from their outer ends.

Fires and depredations during the Roman period gradually destroyed the Library. When Julius Caesar occupied Alexandria in 48bc, Cleopatra urged him to help himself to the books. Obliging, he shipped tens of thousands to Rome. Marc Antony was rumored to have given Cleopatra the 200,000-scroll collection of rival library Pergamum to replace Alexandria's losses.

Library in Rome

By the middle of the second century bc, Rome also boasted rich library resources. Initially comprised of some scattered private collections, holdings eventually expanded through the spoils of war. Even Aristotle's famed collection was among the bounty.

Renaissance of Learning

As Europe emerged from the depths of darkness into the light of learning, its people began to look to the Greek and Roman artistic and literary classics for inspiration. Many aristocrats of the period were dedicated to developing their private libraries. Cosimo de Medici of the famous Florentine family established his own collection, which formed the basis of the Laurentian Library. Also in Italy, the Vatican Library opened in the 1400s. Accompanying the growth of universities was the development of university libraries, which, in some cases, were founded on the basis of a personal donation. For example, Humphrey, Duke of Gloucester, donated his large collection to Oxford University in the early 1400s.

Gutenberg's movable type innovation in the 1400s revolutionized bookmaking. Printed books replaced handwritten manuscripts and were placed on open shelves.

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The Golden Age

Throughout the 1600s and 1700s, libraries surged in popularity. They grew as universities developed and as national, state-supported collections began to appear. Many of these became national libraries.

The ready availability of information on the Internet, and its widespread use, really presents Librarians with an opportunity, not a threat. Technology Savvy users realize they need help, which Librarians can provide. Librarians now face difficulties and complicity challenges due to new trends in information access.

In the present technological Internet era the professionals have to change themselves as the information profession is being changed. Now information specialists have to work as e-information resources in which various professional groups are expected to map strategies that lead to produce, manage, maintain and service the information. Information professional has to work as:

Librarian: In addition to being library manager, they also act as collection development, technical processors and so on, taking care of information quality.

Information Manager: To meet information need of the user they should know how to manage and deliver appropriate information services.

Information adviser/instructor: Ensure that user/staff know how to access relevant sources of information (literacy).

System and Networking: For delivery of information to their users in an appropriate manner develop and design appropriate systems.

Skills, knowledge, Competencies required for LIS Professionals

The basic goal of library and information profession has always been to provide access to information to those who need it. The activities realizing this goal have evolved and transformed over the years. This includes-Available technology, and need of an evolving information society. Information activities have been guided by the developments in the field of storages, presentation and archiving of knowledge, collection development and organization of knowledge, information explosion and computers in information retrieval. Librarian and information professional involved in information gathering, storage, retrieval and dissemination on one hand and on the other hand the computer specialists who supports the library and informational professionals in this endeavor. For successful implementation of Digital Library, it is essential that LIS professionals are well trained and possess requisite knowledge and skills in this respect.

(I) Knowledge and Skills

Librarians need to know understand:

- Knowledge resources (books, journals, *i.e*., resources, Internet)
- Teleological facilities and resources (computer, online catalogues, websites, LANs file servers etc.)
- Financial resources (Budget) Human resources (Skills for manpower training).

(II) Competencies that required possessing in LIS professional

- Acceptance of change.
- Knowledge of user interaction with knowledge resources.
- Provide quality service.
- Be adoptive, flexible and resistant.
- Be resourceful

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- Posses excellent communication skills, constantly update personal knowledge base by keeping in touch with the latest development
- Create awareness among the users, make them accept the changes
- Be an information management strategist, etc.

(III) Technical Knowledge required

- Operating systems-Windows, UNIX, LINUX.
- World processing, Graphics, Spread sheet and Presentations.
- Database Management Systems including the skills in Bibliographic Database Management Systems.
- General purpose programming, Networking
- Web page Development and Content Management
- Information Retrieval software for online, CD-ROM and Internet.
- Library software packages, acquaintances with Digital Library Tools.

The world of information is undergoing rapid change. An information age at a great turning point in the history of civilization. The day has arrived when it is most important to learn to access, analyze apply and evaluate such information. As traditional custodians of information, librarians need to be aware of the implications of these changes and develop technological and managerial skills, which will enable them to make effective use of information and to meet their organizations changing information need.

Development of information technology is playing a crucial role in restructuring of the libraries. Shift from human dependent operations to machine dependency, mechanization (data processing) to knowledge processing, stand alone system to network computing, local LAN to wireless access protocol systems. Document centered information to user (Access) centered information; print media to electronic (Access) media, data capture methods, human to machine oriented. Library automating (in-house) to web-enabled services (WAN Access), online information retrieval to CD-ROM databases to internet. These prolonged shift in application of innovative IT to library and information profession can be attributed to the changes emanated in the last 2 decades.

The role of librarian has changed in the digital library era. It is, therefore pertinent on the part of the librarian to acquire new skills required for developing and managing the digital libraries. The library and information professionals are required to acquire such knowledge and skills as the library is one of the highly IT influenced service profession. The empowerment of library and information professionals with IT skills is aimed at providing services that are expected of from the clientele in the new environment.

Did u know? Digital age has brought a tremendous change in the way information is stored and accessed. This has brought about a change in the concept of librarian, their collection and services. Many new terms viz. Digital Librarian, Libraries without walls, virtual libraries, are emerging to describe the libraries of digital age.

Task Mention some of the competencies that required possessing in LIS professional.

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Self Assessment

Multiple Choice Questions:

4. Who said Aristotle was the first to have put together a collection of books and to have taught the kings in Egypt how to arrange a library:
   (a) Strabo (b) Demetrius
   (c) Ashurbanipal (d) Sennacherib.
5. In Italy, the Vatican Library opened in the year:
   (a) 1400s (b) 1600s
   (c) 1700s (d) 1300s.

1.4 Needs of Information

'In addition to the factors mentioned by March and Simon, there are two other considerable aspects, stemming from environmental and organizational dynamics. Firstly, it is not possible to access, collect and evaluate all environmental information being relevant for taking a certain decision at a reasonable price, *i.e.*, time and effort. In other words, following a national economic framework, the transaction cost associated with the information process is too high. Secondly, established organizational rules and procedures can prevent the taking of the most appropriate decision, *i.e.*, that a sub-optimum solution is chosen in accordance to organizational rank structure or institutional rules, guidelines and procedures, an issue that also has been brought forward as a major critique against the principles of bureaucratic organizations.

According to the Carnegie Mellon School and its followers, information management, *i.e.*, the organization's ability to process information is at the core of organizational and managerial competencies. Consequently, strategies for organization design must be aiming at improved information processing capability. Jay Galbraith has identified five main organization design strategies within two categories increased information processing capacity and reduced need for information processing.

1. Reduction of information processing needs
   (a) Environmental management
   (b) Creation of slack resources
   (c) Creation of self-contained tasks
2. Increasing the organizational information processing capacity
   (a) Creation of lateral relations
   (b) Vertical information systems

Environmental Management

Instead of adapting to changing environmental circumstances, the organization can seek to modify its environment. Vertical and horizontal collaboration, *i.e.*, co-operation or integration with other organizations in the industry value system are typical means of reducing uncertainty. An example of reducing uncertainty in relation to the prior or demanding stage of the industry system is the concept of Supplier-Retailer collaboration or Efficient Customer Response.

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Creation of Slack Resources

In order to reduce exceptions, performance levels can be reduced, thus decreasing the information load on the hierarchy. These additional slack resources, required to reduce information processing in the hierarchy, represent an additional cost to the organization. The choice of this method clearly depends on the alternative costs of other strategies.

Creation of Self-contained Tasks

Achieving a conceptual closure of tasks is another way of reducing information processing. In this case, the task-performing unit has all the resources required to perform the task. This approach is concerned with task (de-)composition and interaction between different organizational units, *i.e.*, organizational and information interfaces.

Creation of Lateral Relations

In this case, lateral decision processes are established that cut across functional organizational units. The aim is to apply a system of decision subsidiary, *i.e.* to move decision power to the process, instead of moving information from the process into the hierarchy for decision-making.

Investment in Vertical Information Systems

Instead of processing information through the existing hierarchical channels, the organization can establish vertical information systems. In this case, the information flow for a specific task (or set of tasks) is routed in accordance to the applied business logic, rather than the hierarchical organization.

Following the lateral relations concept, it also becomes possible to employ an organizational form that is different from the simple hierarchical information. The Matrix organization is aiming at bringing together the functional and product departmental bases and achieving a balance in information processing and decision making between the vertical (hierarchical) and the horizontal (product or project) structure. The creation of a matrix organization can also be considered as management's response to a persistent or permanent demand for adaptation to environmental dynamics, instead of the response to episodic demands.

Self Assessment

State whether the following statements are true or false:

6. According to March and Simon, following a national economic framework, the transaction cost associated with the information process is too high.
7. Jay Galbraith has identified five main organization design strategies within two categories increased information processing capacity and reduced need for information processing.

1.5 Summary

- A library where access points and house keeping operations are computerized is called an automated library. The graphic records are still print-on-paper publication.
- The access point as well as the graphic records are in electronic digital form when these electronic digital libraries are connected via various networks, particularly the INTERNET, this is called virtual library.

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- "The digital library is not merely equivalent to a digitized collection with information management tools. It is also a series of activities that brings together collections, services and people in support of the full life cycle of creation, dissemination, use and presentation of date, information and knowledge.
- The resources provided by the digital libraries can be classified into in-house resources and external resources.
- The basic goal of library and information profession has always been to provide access to information to those who need it.

1.6 Keywords

Traditional Library : Libraries are where the access points such as, library catalogues as well as library collections are print based and their management is by and large manual.

Automated Library : A library where access points and housekeeping operations are computerized is called an automated library.

1.7 Review Questions

1. Write a note on Traditional Library.
2. What is Automated Library?
3. What is electronic library?
4. Define Digital Library.
5. Write the role of Information Manager.
6. What is the function of system and networking?
7. Name some factors Librarians need to know and understand.
8. Analyze the changing role of libraries.
9. Write the types of library resources.
10. What are the Skills, knowledge, competencies required for LIS Professionals?
11. Briefly discuss on Environmental management.
12. Describe the advantages and disadvantages of digital library.
13. Discuss the changing role of library professional in digital age.
14. Explain the needs of information.

Answers: Self Assessment

1. LIBECON
2. automated library
3. digital object
4. (a)
5. (a)
6. True
7. True.

1.8 Further Readings

Notes

Books

Girja Kumar: *Philosophy of user Education,* Delhi, Vikas, 1983

Peter, Fox: *Library user education*

Line, Maurice (B): *Library Surveys,* London, Clive Bingley, 1982

Lancaster, (F.W): *The measurement and evaluation of Library Services.*

Online links

http://www.ukoln.ac.uk/services/papers/follett/lesk/paper.html

http://net.educause.edu/ir/library/html/cnc9754/cnc9754.html

http://www.iva.dk/bh/

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Unit 2: Library Information

CONTENTS

Objectives

After studying this unit, you will be able to:

- Understand the definition and its nature
- Know about categories of information users.

Introduction

Information management is the collection and management of information from one or more sources and the distribution of that information to one or more audiences. This sometimes involves those who have a stake in, or a right to that information. Management means the organization of and control over the structure, processing and delivery of information.

Throughout the 1970s this was largely limited to files, file maintenance, and the life cycle management of paper-based files, other media and records. With the proliferation of information technology starting in the 1970s, the job of information management took on a new light, and also began to include the field of Data maintenance. No longer was information management a simple job that could be performed by almost anyone. An understanding of the technology involved, and the theory behind it became necessary. As information storage shifted to electronic means, this became more and more difficult. By the late 1990s when information was regularly disseminated across computer networks and by other electronic means, network managers, in a sense, became information managers. Those individuals found themselves tasked with increasingly complex tasks, hardware and software. With the latest tools available, information management has become a powerful resource and a large expense for many organizations.

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2.1 Definition and its Nature

Information science is an interdisciplinary science primarily concerned with the analysis, collection, classification, manipulation, storage, retrieval and dissemination of information. Practitioners within the field study the application and usage of knowledge in organizations, along with the interaction between people, organizations and any existing information systems, with the aim of creating, replacing, improving or understanding information systems. Information science is often (mistakenly) considered a branch of computer science. However, it is actually a broad, interdisciplinary field, incorporating not only aspects of computer science, but often diverse fields such as archival science, cognitive science, commerce, communications, law, library science, musicology, management, mathematics, philosophy, public policy, and the social sciences.

Information science focuses on understanding problems from the perspective of the stakeholders involved and then applying information and other technologies as needed. In other words, it tackles systemic problems first rather than individual pieces of technology within that system. In this respect, information science can be seen as a response to technological determinism, the belief that technology "develops by its own laws, that it realizes its own potential, limited only by the material resources available, and must therefore be regarded as an autonomous system controlling and ultimately permeating all other subsystems of society." Within information science, attention has been given in recent years to human–computer interaction, groupware, the semantic web, value sensitive design, iterative design processes and to the ways people generate, use and find information. Today this field is called the Field of Information, and there are a growing number of Schools and Colleges of Information.

Self Assessment

Fill in the blanks:

1.....is the collection and management of information from one or more sources.

2.....is an interdisciplinary science primarily concerned with the analysis, collection, classification, manipulation, storage, retrieval and dissemination of information.

2.2 Categories of Information Users

The users are one type but libraries are different from those of another type. In a public library the users are mainly children, student's, housewives, farmers, retired persons, literates and even also researches. In an academic library the users are students, teachers and researchers, whereas as special groups of users of whom the library is intended. From what is stated above it can be assumed that in the public libraries the users are almost heterogeneous and in academic and special libraries the users are almost homogeneous in nature.

Notes For an effective information service as an information manager, he should ascertain about the information requirements of his library users.

Information users can be categorized mainly into 4 groups, on the basis of their approach to information a libraries, they are:

(i) ***Potential user***: One who needs information which can be provided by specific services.

(ii) ***The expected user***: One who is known to have the intention of using certain information services.

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(iii) ***Actual user***: One who has actually used an information service regardless of whether he derived advantages from it or not.

(iv) ***The beneficiary user***: One who derives measurable advantages from information services.

User groups may be divided in a number of ways. They can be divided as administratively into internal and external users. Another type of classification of user community on the basis of library service they make use of is the following.

Self Assessment

Multiple Choice Questions:

3. Information users can be categorised mainly into:

   (a) 4 groups (b) 3 groups

   (c) Two groups (d) One group.

4. One who needs information which can be provided by specific services is called:

   (a) Potential user (b) Expected user

   (c) Actual user (d) Beneficiary user.

General readers

This type of user group, for example associated with public libraries, generally use light lending materials.

Subject Readers

This type of user concentrates their use of library materials on subject field they are working or specializing.

Special Readers

The users placed in this group are those with special needs, the result of disabilities of one kind or another physical or mental disability may be distinguished.

Non-Readers Users

These are made up of sub groups who make use of library materials, but not reading materials. A user coming into the library just to borrow a video or audio cassette is the best example of non-reading user.

Task What is information users? Explain the different groups of information users.

Self Assessment

State whether the following statements are true or false:

5. Subject readers concentrates their use of library materials on subject field they are working or specializing.

6. Special readers are associated with public libraries.

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2.3 Summary

- Information management is the collection and management of information from one or more sources and the distribution of that information to one or more audiences.
- Information science is an interdisciplinary science primarily concerned with the analysis, collection, classification, manipulation, storage, retrieval and dissemination of information.
- Information science focuses on understanding problems from the perspective of the stakeholders involved and then applying information and other technologies as needed.
- The users are one type but libraries are different from those of another type. In a public library the users are mainly children, student's, housewives, farmers, retired persons, literates and even also researches.
- For an effective information service as an information manager, he should ascertain about the information requirements of his library users.

2.4 Keywords

Potential User : One who needs information which can be provided by specific services.

Expected User : One who is know to have the intention of using certain information services.

Actual User : One who has actually used an information service regardless of whether he derived advantages from it or not.

Beneficiary User : One who derives measurable advantages from information services.

2.5 Review Questions

1. Write a short note on information management.
2. Define information science.
3. Describe the categories of information users.

Answers: Self Assessment

1. Information management
2. Information science
3. (a)
4. (a)
5. True
6. False

2.6 Further Readings

Books

Lancaster, (F.W): *If you want to evaluate your Library*

Prasher, (R.G): *Information and its communication*

Laloo, (Bikika Tariaing): *Information needs, information seeking behaviours and users*, Delhi, Ess Ess, 2002

Jordan, (Peter): *The academic Library and its users*, Gover, 1998.

Online links

http://web.simmons.edu/~benoit/rc/WhatIsIS-draft1.pdf

www.wikipedia.com

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Unit 3: Library Information Needs of Users

CONTENTS

Objectives

After studying this unit, you will be able to:

- Know about the information needs of users
- Understand the information seeking behavior
- Discuss the Wilson's nested model of conceptual areas.

Introduction

Many disciplines in science are heavily researched, thus topics are changing in a rapid manner. Also, the literature in science and technology is growing at an exponential rate; therefore, it has become essential to assess the information needs of the users periodically to customize value-added services and resources. In a science and technology library, collection development is the third important function out of five primary functions.

The collection development function entirely depends on the mission and goals of the parent body in respect to the research, educational, recreational and other day-to-day information requirements of the users that it serves. It determines the library collection's scope and depth, and the services offered. Traditional methods of collection development are: use of librarian or user subject specialists, user recommendations, and approval plans. The information requirements of users vary with their educational background, work assignments, time, geography, organization, age, availability of technological facilities, and other factors. To identify user information needs, librarians conduct surveys, distribute questionnaires, interview, and also analyze the circulation data, external and

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internal inter-library loan requests data, and web log data. All these methods help to identify information needs of users only to some degree, not completely.

RRCAT is a premier research and development organization in the area of lasers, accelerators and its related disciplines. There are about 500 scientists and engineers engaged in R and D activities, and 500 scientific/technical support staff. The RRCAT library since its inception is offering various information services actively to all its users and visitors. ILL is one such service offered to users for on-demand materials that are not available locally due to the proliferation of material and limited library budgets. The ILL service is the last of the five main functions of any science and technology library.

1. The online dictionary for library and information science (ODLIS) defines ILL as, "When a book or other item needed by a registered borrower is checked out, unavailable for some other reason, or not owned by the library, a patron may request that it be borrowed from another library by filling out a printed ILL request form at a service desk, or electronically via the library's website. Some libraries also accept ILL requests via e-mail or by telephone, usually under exceptional circumstances. Materials borrowed on ILL may usually be renewed on or before the due date".
2. The term ILL is also referred to as 'document delivery (DD)' and 'resource sharing'. The term DD is used, rather than ILL, because organizations other than libraries engage in providing documents, both originals and copies to other organizations.
3. The ILL requests received in the years 2005 and 2006 at RRCAT were analyzed to determine frequently refer red to journals by the users from those non subscribed journals. The currency of information sought by the users was also determined by examining the publication year of all the requested documents.

3.1 Information Seeking Behavior

Information seeking is the process or activity of attempting to obtain information in both human and technological contexts. Information seeking is related to, but yet different from, information retrieval (IR).

Information Retrieval

Traditionally, IR tools have been designed for IR professionals to enable them to effectively and efficiently retrieve information from a source. It is assumed that the information exists in the source and that a well-formed query will retrieve it (and nothing else). It has been argued that laypersons' information seeking on the Web is very different from information retrieval as performed within the IR discourse. Yet, web search engines are built on IR principles. Since the late 1990s a body of research on how casual users interact with Web search engines has been forming, but the topic is far from fully understood. IR can be said to be technology-oriented, focusing on algorithms and issues such as precision and recall.

Notes Information seeking may be understood as a more human-oriented and open-ended process than information retrieval. In information seeking, one does not know whether there exists an answer to one's query, so the process of seeking may provide the learning required to satisfy one's information need.

Notes

In Different Contexts

Much Library and Information Science (LIS) research has focused on the information seeking practices of practitioners within various fields of professional work. Studies have been carried out into the information-seeking behaviors of librarians, academics, medical professionals, engineers and lawyers (among others). Much of this research has drawn on the work done by Leckie, Pettigrew (now Fisher) and Sylvain, who in 1996 conducted an extensive review of the LIS literature (as well as the literature of other academic fields) on professionals' information seeking. The authors proposed an analytic model of professionals' information seeking behaviour, intended to be generalizable across the professions, thus providing a platform for future research in the area. The model was intended to "prompt new insights... and give rise to more refined and applicable theories of information seeking" (1996, p. 188). The model has been adapted by Wilkinson (2001) who proposes a model of the information seeking of lawyers.

Theories of Information Seeking Behavior

A variety of theories of information behavior-*e.g*. Zipf's Principle of Least Effort, Brenda Dervin's Sense Making, and Elfreda Chatman's Life in the Round - seek to understand the processes that surround information seeking.

A review of the literature on information seeking behavior shows that information seeking has generally been accepted as dynamic and non-linear (Foster, 2005; Kuhlthau 2006). People experience the information search process as interplay of thoughts, feelings and actions (Kuhlthau, 2006). Donald O. Case (2007) also wrote a good book that is a review of the literature.

Information seeking has been found to be linked to a variety of interpersonal communication behaviors beyond question-asking, to include strategies such as candidate answers.

Robinson's (2010) research suggests that when seeking information at work, people rely on both other people and information repositories (*e.g*., documents and databases), and spend similar amounts of time consulting each (7.8% and 6.4% of work time, respectively; 14.2% in total). However, the distribution of time among the constituent information seeking stages differs depending on the source. When consulting other people, people spend less time locating the information source and information within that source, similar time understanding the information, and more time problem solving and decision making, than when consulting information repositories. Furthermore, the research found that people spend substantially more time receiving information passively (*i.e*., information that they have not requested) than actively (*i.e*., information that they have requested), and this pattern is also reflected when they provide others with information.

Task Analyze the information seeking behaviour.

Self Assessment

Fill in the blanks:

1 ..... is a premier research and development organization in the area of lasers, accelerators and its related disciplines.

2 ..... is the process or activity of attempting to obtain information in both human and technological contexts.

Notes

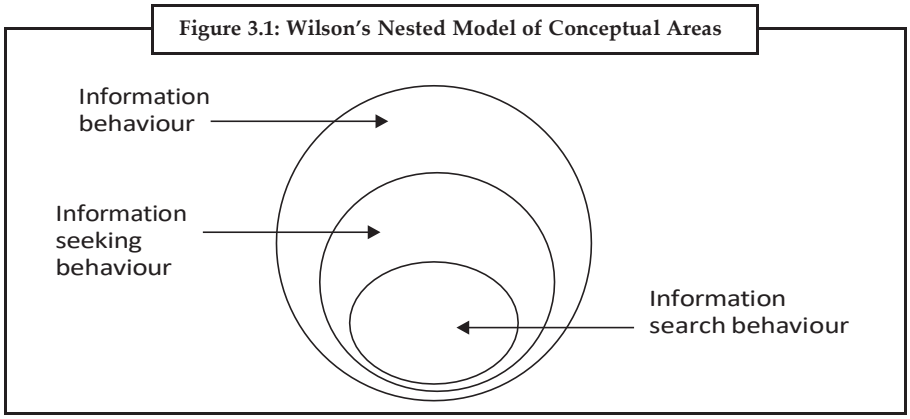
3. LIS stands for ..... .

4 ..... research suggests that when seeking information at work, people rely on both other people and information repositories.

3.2 Wilson's Nested Model of Conceptual Areas

The concepts of information seeking, information retrieval, and information behaviour are objects of investigation of information science. Within this scientific discipline a variety of studies has been undertaken analyzing the interaction of an individual with information sources in case of a specific information need, task, and context. The research models developed in these studies vary in their level of scope. Wilson (1999) therefore developed a nested model of conceptual areas, which visualizes the interrelation of the here mentioned central concepts.

Figure 3.1: Wilson's Nested Model of Conceptual Areas



Wilson defines models of information behavior to be "statements, often in the form of diagrams that attempt to describe an information-seeking activity, the causes and consequences of that activity, or the relationships among stages in information-seeking behaviour" (1999: 250).

Self Assessment

Multiple Choice Questions:

5. Information seeking is the process or activity of attempting to obtain information in context of .....

   (a) Human and Technological (b) Technological

   (c) Human (d) None of these.

6. Who developed the nested model of conceptual areas?

   (a) Wilson (b) Robinson

   (c) Both (a) and (b) (d) None of these.

3.3 Summary

- The literature in science and technology is growing at an exponential rate; therefore, it has become essential to assess the information needs of the users periodically to customize value-added services and resources.
- The collection development function entirely depends on the mission and goals of the parent body in respect to the research, educational, recreational and other day-to-day information requirements of the users that it serves.

Notes

- **Information seeking** is the process or activity of attempting to obtain information in both human and technological contexts. Information seeking is related to, but yet different from, information retrieval (IR).
- The concepts of information seeking, information retrieval, and information behaviour are objects of investigation of information science.

3.4 Keywords

ODLIS : Online Dictionary for library and Information Science.

Information Retrieval : IR tools have been designed for IR professionals to enable them to effectively and efficiently retrieve information from a source.

3.5 Review Questions

1. What is meant by management?
2. What is information system evaluation?
3. Define library survey.
4. Write a paragraph on Information needs of users.
5. Explain the Wilson's nested model of conceptual areas.

Answers: Self Assessment

1. RRCAT
2. Information seeking
3. Library and Information Science
4. Robinson's
5. (a)
6. (a)

3.6 Further Readings

Books

Girja Kumar: *Philosophy of user Education,* Delhi, Vikas, 1983

Peter, Fox: *Library user education*

Line, Maurice (B): *Library Surveys,* London, Clive Bingley, 1982

Lancaster, (F.W): *The measurement and evaluation of Library Services.*

Online links

http://informationr.net/tdw/publ/papers/1999JDoc.html

http://informationr.net/ir/11-4/paper269.html

Notes

Unit 4: Evaluation of Library Sources and Services

CONTENTS

Objectives

After studying this unit, you will be able to:

- Discuss the evolution of library science and services
- Know about the periodicals.

Introduction

Evaluation of the performance of library and information systems is one of the major concerns and an integral part of the library and information systems manager's job. It is widely recognised as an important issue, although it has been looked at or defined variously. Many librarian decision makers need to know about the quality of existing services, they also want to know how well the library meets stated goals and objectives and information needs of its users, Evaluation provides decision makers an insights into service, collections and staff which can be used to produce changes and improve planning.

Evaluation is the process of identifying and collecting data about specific services or activities, establishing criteria by which their success can be assessed.

Performance evaluation of a library and information system or its components can be required for different reasons. For example, the evaluation of the performance of library and information systems and the resulting data could be used to assess how well the system meets its objectives or for justification of continuance of a service.

Notes

4.1 Evolution of Library Science and Services

Library science is an interdisciplinary field that applies the practices, perspectives, and tools of management, information technology, education, and other areas to libraries; the collection, organization, preservation, and dissemination of information resources; and the political economy of information. The first school for library science was founded by Melvil Dewey at Columbia University in 1887.

Historically, library science has also included archival science. This includes how information resources are organized to serve the needs of select user groups, how people interact with classification systems and technology, how information is acquired, evaluated and applied by people in and outside of libraries as well as cross-culturally, how people are trained and educated for careers in libraries, the ethics that guide library service and organization, the legal status of libraries and information resources, and the applied science of computer technology used in documentation and records management. Academic courses in library science typically include collection management, information systems and technology, research methods, cataloging and classification, preservation, reference, statistics and management. Library science is constantly evolving, incorporating new topics like database management, information architecture and knowledge management, among others.

There is no generally agreed-upon distinction between the terms library science, librarianship, and library and information science, and to a certain extent they are interchangeable, perhaps differing most significantly in connotation. The term library and information science (LIS) is most often used; most librarians consider it as only a terminological variation, intended to emphasize the scientific and technical foundations of the subject and its relationship with information science. LIS should not be confused with information theory, the mathematical study of the concept of information. LIS can also be seen as an integration of the two fields, library science and information science, which were separate at one point. Library philosophy has been contrasted with library science as the study of the aims and justifications of librarianship as opposed to the development and refinement of techniques.

History

The history of the library, it may be argued, began with the first effort to organize a collection of information and provide access to that information.

Early History

At Ugarit in Syria excavations have revealed a palace library, temple library, and two private libraries which ***dated*** back to around 1200 BC, containing diplomatic texts as well as poetry and other literary forms. In the 7th century, King Ashurbanipal of Assyria assembled what is considered the first systematically collected library at Nineveh; previous collections functioned more as passive archives. The legendary Library of Alexandria is perhaps the best known example of an early library, flourishing in the 3rd century BC and possibly inspired by Demetrius Phalereus.

Ancient Information Retrieval

One of the curators of the imperial library in the Han Dynasty is believed to have been the first to establish a library classification system and the first book notation system. At this time the library catalog was written on scrolls of fine silk and stored in silk bags.

Self Assessment

Notes

Fill in the blanks:

1. The first school for library science was founded by Melvil Dewey at Columbia University in the year ..... .
2. In the 7th century .....is considered the first systematically collected library at Nineveh.
3. One of the curators of the imperial library in the..... is believed to have been the first to establish a library classification system and the first book notation system.

19th Century

Thomas Jefferson, whose library at Monticello consisted of thousands of books, devised a classification system inspired by the Baconian method, which grouped books more or less by subject rather than alphabetically, as it was previously done. Jefferson's collection became the nucleus of the first national collection of the United States when it was transferred to Congress after a fire destroyed the Congressional Library during the War of 1812. The Jefferson collection was the start of what we now know as the Library of Congress. The first textbook on library science was published 1808 by Martin Schrettinger, followed by books of Johann Georg Seizinger and others.

20th Century

In the English speaking world the term "library science" seems to have been used for the first time in a book in 1916 in the "Punjab Library Primer" written by Asa Don Dickinson and published by the University of the Punjab, Lahore, Pakistan. This university was the first in Asia to begin teaching 'library science'. The "Punjab Library Primer" was the first textbook on library science published in English anywhere in the world. The first textbook in the United States was the "Manual of Library Economy" which was published in 1929. Later, the term was used in the title of S. R. Ranganathan's The Five Laws of Library Science, published in 1931, and in the title of Lee Pierce Butler's 1933 book, An introduction to library science (University of Chicago Press). Butler's new approach advocated research using quantitative methods and ideas in the social sciences with the aim of using librarianship to address society's information needs. This research agenda went against the more procedure-based approach of "library economy," which was mostly confined to practical problems in the administration of libraries. While Ranganathan's approach was philosophical it was tied more to the day-to-day business of running a library. A reworking of Raganathan's laws was published in 1995 which removes the constant references to books. Michael Gorman's Five New Laws of Librarianship, incorporate knowledge and information in all their forms, allowing for digital information to be considered.

Did u know? In more recent years, with the growth of digital technology, the field has been greatly influenced by information science concepts. Although a basic understanding is critical to library research and practical work (for example in the use of online social networks by libraries), the area of information science has remained largely distinct both in training and in research interests.

Task Explain the evolution of library science and services in 20th century.

Notes

This Evaluation was asked both to look at the efficiency and effectiveness of how the Library has achieved its developments, along with a strategic consideration of the organizational and operational environment within which the Library can best innovate for the future needs of its user community. The specific evaluation objectives were to:

- Assess the current services of the Library in view of its place in the current global information environment;
- Provide the Library with a strategic focus for the expansion of documentation, and the quality of direct services for the target user populations;
- Define the technical and human resources, and budget that would allow the Library to achieve these goals. In addressing the objectives the evaluation methodology used the following information gathering activities:
- An Online Survey, and Focus Groups where users and non-users were able to provide opinions about their information needs, (for users) their experiences when using Library services, and their recommendations about how the Library could develop services to meet their information needs;
- Interviews with an extensive range of Library staff, and with information specialists in other Commission Libraries and Information Centers.
- Desk Research including documentation/Information provided by the Central Library and material gathered to ascertain how other institutional libraries were developing their services.

Self Assessment

Multiple Choice Questions:

4. The first textbook on library science was published in the year:
   (a) 1808 (b) 1916
   (c) 1812 (d) 1807.
5. Which university was the first in Asia to begin teaching library science:
   (a) University of Punjab (b) University of Delhi
   (c) University of Carneige (d) None of these.
6. The Five Laws of Library Science, published in the year:
   (a) 1931 (b) 1808
   (c) 1916 (d) 1925.
7. A reworking of Raganathan's laws was published, which removes the constant references to books in the year:
   (a) 1995 (b) 1931
   (c) 1916 (d) 1808.

4.2 Periodicals

Periodicals include newspapers, journals and magazines, and collections and bulletins published in series. Serials and yearbooks are grouped together with periodicals in library classifications, catalogs, and holdings. The chief characteristics of periodicals are their regularity and continuity of

Notes

publication; an identical name on all issues; and successive numbering of volumes, issues, and years of publication. Periodicals usually consist of a collection of articles, which may range from a single page story in a magazine to a 40 page study in a scholarly journal. Periodicals have an editor, a combined editor and publisher, or an editorial staff headed by an editor in chief.

Periodicals are not limited to the print format. Some periodicals are published as online, digitized information residing in a remote database or in CD-ROM or other optical disc format.

Journals and magazines are published weekly, once every two weeks, monthly, once every two months, or quarterly. Years of publication are numbered successively, and the issues are composed of sewn sheets. Newspapers are printed at intervals generally ranging from once a day to once a month. Most are published daily, triweekly, or weekly; UNESCO defines a daily newspaper as one published at least four times a week.

Notes Newspapers are numbered successively and printed in newspaper format on folded sheets. Bulletins are published up to once a month and have a format smaller than that of most journals.

The Advantages of Using Periodicals

- Because they are published frequently, periodicals are the best sources for current information.
- Current events are usually discussed in periodicals long before they become the subject of a book.
- Periodicals often contain information on the latest trends, products, research and theories.
- Periodicals are the best source for ephemeral or very specialized information.
- Periodicals exist for every field and every interest, providing access to a variety of hard-to find information.
- Due to the shorter length of periodical articles, more topics may be covered within one volume of a periodical than in one book.

Self Assessment

State whether the following statements are true or false:

8. Periodicals include newspapers, journals and magazines, and collections and bulletins published in series.
9. UNESCO defines a daily newspaper as one published at least four times a week.

4.3 Summary

- Evaluation of the performance of library and information systems is one of the major concerns and an integral part of the library and information systems manager's job.
- Evaluation is the process of identifying and collecting data about specific services or activities, establishing criteria by which their success can be assessed.
- The history of the library, it may be argued, began with the first effort to organize a collection of information and provide access to that information.

Notes

- Periodicals are not limited to the print format. Some periodicals are published as online, digitized information residing in a remote database or in CD-ROM or other optical disc format.

4.4 Keywords

LIS : Library and Information Science.

Periodicals : Periodicals include newspapers, journals and magazines.

4.5 Review Questions

1. What do you mean by evolution of library science and services? Explain.
2. Explain the evolution of library science and services in 19th century.
3. Write a short note on periodicals.
4. Discuss the advantages of using periodicals.

Answers: Self Assessment

1. 1887
2. King Ashurbanipal of Assyria assembled
3. Han Dynasty
4. (a)
5. (a)
6. (a)
7. (a)
8. True
9. True.

4.6 Further Readings

Books

Girja Kumar: *Philosophy of user Education*, Delhi, Vikas, 1983

Peter, Fox: *Library user education*

Line, Maurice (B): *Library Surveys,* London, Clive Bingley, 1982

Lancaster, (F.W): *The measurement and evaluation of Library Services.*

Online links

http://en.wikipedia.org/wiki/Periodical_literature

http://www.arkgroupaustralia.com.au/

http://www.uff.br/ppgci/editais/historyofis.pdf

Notes

Unit 5: Library Catalogues

CONTENTS

Objectives

After studying this unit, you will be able to:

- Know about the library catalog
- Discuss the different types of catalog
- Understand the effectiveness of cost benefit.

Introduction

A **library catalog** (or **library catalogue**) is a register of all bibliographic items found in a library or group of libraries, such as a network of libraries at several locations. A bibliographic item can be any information entity (*e.g.*, books, computer files, graphics, regalia, cartographic materials, etc.) that is considered library material (*e.g.*, a single novel in an anthology), or a group of library materials (*e.g.*, atrilogy), or linked from the catalog (*e.g.*, a webpage) as far as it is relevant to the catalog and to the users (patrons) of the library.

The **card catalog** was a familiar sight to library users for generations, but it has been effectively replaced by the online public access catalog (OPAC). Some still refer to the online catalog as a "card catalog". Some libraries with OPAC access still have card catalogs on site, but these are now strictly a secondary resource and are seldom updated. Many of the libraries that have retained their physical card catalog post a sign advising the last year that the card catalog was updated. Some libraries have eliminated their card catalog in favour of the OPAC for the purpose of saving space for other use, such as additional shelving.

Notes

Charles Ammi Cutter made the first explicit statement regarding the objectives of a bibliographic system in his Rules for a Printed Dictionary Catalog in 1876. According to Cutter, those objectives were

1. To enable a person to find a book of which either (Identifying objective)
   - the author
   - the title
   - the subject
   - the category is known.
2. To show what the library has (Collocating objective)
   - by a given author
   - on a given subject
   - in a given kind of literature
3. To assist in the choice of a book (Evaluating objective)
   - as to its edition (bibliographically)
   - as to its character (literary or topical)

These objectives can still be recognized in more modern definitions formulated throughout the 20th century. 1960/61 Cutter's objectives were revised by Lubetzky and the Conference on Cataloging Principles (CCP) in Paris.

Notes The latest attempt to describe a library catalog's goals and functions was made in 1998 with Functional Requirements for Bibliographic Records (FRBR) which defines four user tasks: find, identify, select, and obtain.

5.1 Catalog Card

Main Entry *e.g.,*

Arif, Abdul Majid.
Political structure in a changing Pakistani
villages / by Abdul Majid and Basharat Hafeez
Andaleeb. — 2nd ed. — Lahore : ABC Press, 1985.
xvi, 367p. : ill. ; 22 cm.
Includes index.
ISBN 969-8612-02-8 (hbk.)

Types

Traditionally, there are the following types of catalog:

- ***Author card:*** a formal catalog, sorted alphabetically according to the authors' or editors' names of the entries.

Notes

- ***Title catalog:*** a formal catalog, sorted alphabetically according to the title of the entries.
- ***Dictionary catalog:*** a catalog in which all entries (author, title, subject, series) are interfiled in a single alphabetical order. This was the primary form of card catalog in North American libraries just prior to the introduction of the computer-based catalog.
- ***Keyword catalog:*** a subject catalog, sorted alphabetically according to some system of keywords.
- ***Mixed alphabetic catalog forms:*** sometimes, one finds a mixed author/title, or an author/title/keyword catalog.
- ***Systematic catalog:*** a subject catalog, sorted according to some systematic subdivision of subjects. Also called a classified catalog.
- ***Shelf list catalog:*** a formal catalog with entries sorted in the same order as bibliographic items are shelved. This catalog may also serve as the primary inventory for the library.

Library catalogs originated as manuscript lists, arranged by format (folio, quarto, etc.) or in a rough alphabetical arrangement by author. Printed catalogs, sometimes called dictionary catalogs enabled scholars outside a library to gain an idea of its contents. These would sometimes be interleaved with blank leaves on which additions could be recorded, or bound as guard books in which slips of paper were bound in for new entries. Slips could also be kept loose in cardboard or tin boxes, stored on shelves. The first card catalogs appeared in the nineteenth century, enabling much more flexibility, and towards the end of the twentieth century the OPAC was developed.

- ***c. 245 BC:*** Callimachus is considered the first bibliographer and is the one that organized the library by authors and subjects. The Pinakes was the first ever library catalogue. Variations on this system were used in libraries until the late 1800s when Melvil Dewey developed the Dewey Decimal Classification in 1876, which is still in use today.
- ***c. 800:*** Library catalogues are introduced in the House of Wisdom and other medieval Islamic libraries where books are organized into specific genres and categories.
- ***1595:*** Nomenclator of Leiden University Library appears the first printed catalog of an institutional library.
- ***1674:*** Thomas Hyde's catalog for the Bodleian Library.

More about the early history of library catalogs has been collected in 1956 by Strout.

Self Assessment

Fill in the blanks:

1 ..... made the first explicit statement regarding the objectives of a bibliographic system in his Rules for a Printed Dictionary Catalog in 1876.

2 ..... is considered the first bibliographer and is the one that organized the library by authors and subjects.

3. ..... appears the first printed catalog of an institutional library.

Cataloging Rules

Cataloging (or cataloguing) rules have been defined to allow for consistent cataloging of various library materials across several persons of a cataloging team and across time. Users can use them to clarify how to find an entry and how to interpret the data in an entry. Cataloging rules prescribe →

Notes

which information from a bibliographic item is included in the entry; → how this information is presented on a catalog card or in a cataloging record; → how the entries should be sorted in the catalog. The larger a collection, the more elaborate cataloging rules are needed. Users cannot and do not want to examine hundreds of catalog entries or even dozens of library items to find the one item they need.

Currently, most cataloging rules are similar to, or even based on, the International Standard Bibliographic Description(ISBD), a set of rules produced by the International Federation of Library Associations and Institutions (IFLA) to describe a wide range of library materials. These rules organize the bibliographic description of an item in the following areas: title and statement of responsibility (author or editor), edition, material specific details (for example, the scale of a map), publication and distribution, physical description (for example, number of pages), series, notes, and standard number (ISBN). The most commonly used set of cataloging rules in the English speaking world are the Anglo-American Cataloguing Rules, 2nd Edition, or AACR2 for short. In the German-speaking world there exists the Regeln für die alphabetische Katalogisierung, abbreviated RAK. AACR2 has been translated into many languages, however, for use around the world. AACR2 provides rules for descriptive cataloging only and does not touch upon subject cataloging.

Library items that are written in a foreign script are, in some cases, transliterated to the script of the catalog.

Cataloging terms

- **Main entry:** Generally refers to the first author named on the item. Additional authors are added as "added entries." In cases where no clear author is named, the title of the work is considered the main entry.

Library Sorting

In a title catalog, one can distinguish two sort orders:

- In the grammatical sort order (used mainly in older catalogs), the most important word of the title is the first sort term. The importance of a word is measured by grammatical rules; for example, the first noun may be defined to be the most important word.
- In the mechanical sort order, the first word of the title is the first sort term. Most new catalogs use this scheme, but still include a trace of the grammatical sort order: they neglect an article (The, A, etc.) at the beginning of the title.

The grammatical sort order has the advantage that often, the most important word of the title is also a good keyword (question 3), and it is the word most users remember first when their memory is incomplete. However, it has the disadvantage that many elaborate grammatical rules are needed, so that only expert users may be able to search the catalog without help from a librarian.

In some catalogs, person's names are standardized, *i.e.*, the name of the person is always (cataloged and) sorted in a standard form, even if it appears differently in the library material. This standardization is achieved by a process called authority control. An advantage of the authority control is that it is easier to answer question 2 (which works of some author does the library have?). On the other hand, it may be more difficult to answer question 1 (does the library have some specific material?) if the material spells the author in a peculiar variant. For the cataloguer, it may incur (too) much work to check whether Smith, J. is Smith, John or Smith, Jack.

For some works, even the title can be standardized. The technical term for this is uniform title. For example, translations and re editions are sometimes sorted under their original title. In many catalogs, parts of the Bible are sorted under the standard name of the book(s) they contain. The plays of William Shakespeare are another frequently cited example of the role played by a uniform title in the library catalog.

Notes

Many complications about alphabetic sorting of entries arise. Some examples:

- Some languages know sorting conventions that differ from the language of the catalog. For example, some Dutch catalogs sort IJ as Y. Should an English catalog follow this suit? And should a Dutch catalog sort non-Dutch words the same way?
- Some titles contain numbers, for example 2001: A Space Odyssey. Should they be sorted as numbers, or spelled out as Two thousand and one?
- de Balzac, Honoré or Balzac, Honoré de? Ortega y Gasset, José or Gasset, José Ortega *y*?

For a fuller discussion, see collation

In a subject catalog, one has to decide on which classification system to use. The cataloguer will select appropriate subject headings for the bibliographic item and a unique classification number (sometimes known as a "call number") which is used not only for identification but also for the purposes of shelving, placing items with similar subjects near one another, which aids in browsing by library users, who are thus often able to take advantage of serendipity in their search process.

Task Analyze the card cataloguing rules.

Self Assessment

Multiple Choice Questions:

4. A formal catalog, sorted alphabetically according to the authors' or editors' names of the entries is called:

   (a) Author card (b) Title catalog

   (c) Dictionary catalogue (d) None of these.

5. IFLA stands for:

   (a) International Federation of Library Association

   (b) International Federation of Laboratory Association

   (c) International Federation of Laboratory Associates

   (d) International Federation of Law Association.

5.2 Effectiveness

Cost benefit/cost effectiveness studies

Cost-effectiveness analysis (**CEA**) is a form of economic analysis that compares the relative costs and outcomes (effects) of two or more courses of action. Cost-effectiveness analysis is distinct from cost-benefit analysis, which assigns a monetary value to the measure of effect. Cost-effectiveness analysis is often used in the field of health services, where it may be inappropriate to monetize health effect. Typically the CEA is expressed in terms of a ratio where the denominator is a gain in health from a measure (years of life, premature births averted, sight-years gained) and the numerator is the cost associated with the health gain. The most commonly used outcome measure is quality-adjusted life years (QALY). Cost-utility analysis is similar to cost-effectiveness analysis.

Notes

General application

The concept of cost effectiveness is applied to the planning and management of many types of organized activity. In the acquisition of military tanks, for example, competing designs are compared not only for purchase price, but also for such factors as their operating radius, top speed, rate of fire, armor protection, and caliber and armor penetration of their guns. If a tank's performance in these areas is equal or even slightly inferior to its competitor, but substantially less expensive and easier to produce, military planners may select it as more cost effective than the competitor. Conversely, if the difference in price is near zero, but the more costly competitor would convey an enormous battlefield advantage through special ammunition, radar fire control and laser range finding, enabling it to destroy enemy tanks accurately at extreme ranges, military planners may choose it instead—based on the same cost effectiveness principle.

Cost effectiveness analysis is also applied to many other areas of human activity, including the economics of automobile usage.

CEA in pharmacoeconomics

In the context of pharmacoeconomics, the cost-effectiveness of a therapeutic or preventive intervention is the ratio of the cost of the intervention to a relevant measure of its effect. Cost refers to the resource expended for the intervention, usually measured in monetary terms such as dollars or pounds. The measure of effects depends on the intervention being considered. Examples include the number of people cured of a disease, the mm Hg reduction in diastolic blood pressure and the number of symptom-free days experienced by a patient. The selection of the appropriate effect measure should be based on clinical judgment in the context of the intervention being considered.

A special case of CEA is cost-utility analysis, where the effects are measured in terms of years of full health lived, using a measure such as quality-adjusted life years or disability-adjusted life years.

Cost-effectiveness is typically expressed as an incremental cost-effectiveness ratio (ICER), the ratio of change in costs to the change in effects.

A complete compilation of cost-utility analyses in the peer reviewed medical literature is available from the Cost-Effectiveness Analysis Registry website.

A 1995 study of the cost-effectiveness of over 500 life-saving medical interventions found that the median cost per intervention was $42,000 per life-year saved. A 2006 systematic review found that industry-funded studies often concluded with cost effective ratios below $20,000 per QALY and low quality studies and those conducted outside the US and EU were less likely to be below this threshold. While the two conclusions of this article may indicate that industry-funded ICER measures are lower methodological quality than those published by non-industry sources, there is also a possibility that, due to the nature of retrospective or other non-public work, publication bias may exist rather than methodology biases. There may be incentive for an organization not to develop or publish an analysis that does not demonstrate the value of their product. Additionally, peer reviewed journal articles should have a strong and defendable methodology, as that is the expectation of the peer-review process.

Self Assessment

State whether the following statements are true or false:

6. Cost-effectiveness analysis (CEA) is a form of economic analysis that compares the relative costs and outcomes (effects) of two or more courses of action.
7. The concept of cost effectiveness is applied to the planning and management of many types of organized activity.

Notes

8. Cost-effectiveness is typically expressed as an incremental cost-effectiveness ratio (ICER).
9. A 1996 study of the cost-effectiveness of over 500 life-saving medical interventions found that the median cost per intervention was $42,000 per life-year saved.

5.3 Summary

- The card catalog was a familiar sight to library users for generations, but it has been effectively replaced by the online public access catalog (OPAC).
- The latest attempt to describe a library catalog's goals and functions was made in 1998 with Functional Requirements for Bibliographic Records (FRBR) which defines four user tasks: find, identify, select, and obtain.
- Cataloging (or cataloguing) rules have been defined to allow for consistent cataloging of various library materials across several persons of a cataloging team and across time.
- Cost-effectiveness analysis (CEA) is a form of economic analysis that compares the relative costs and outcomes (effects) of two or more courses of action. Cost-effectiveness analysis is distinct from cost-benefit analysis, which assigns a monetary value to the measure of effect.
- Cost effectiveness analysis is also applied to many other areas of human activity, including the economics of automobile usage.

5.4 Keywords

IFLA : International Federation of Library Association.

ISBD : International Standard Bibliographic Description.

5.5 Review Questions

1. What is the shelf list catalog?
2. Define the systematic catalog.
3. Which is the first ever cataloging?
4. Explain the types of card catalogue.
5. Write in detail library sorting method.
6. Discuss in detail library catalogues.
7. Explain the Charles Ammi Cutter bibliographic system.
8. Examine the cost effectiveness analysis.

Answers: Self Assessment

1. Charles Ammi Cutter
2. Callimachus
3. Nomenclator of Leiden University Library
4. (a)
5. (a)
6. True
7. True
8. True
9. False.

Notes

5.6 Further Readings

Books

Girja Kumar: *Philosophy of user Education*, Delhi, Vikas, 1983

Peter, Fox: *Library user education*

Line, Maurice (B): *Library Surveys,* London, Clive Bingley, 1982

Lancaster, (F.W): *The measurement and evaluation of Library Services.*

Online links

http://www.library.illinois.edu/rex/guides/cardcat/index.html

http://files.dcp2.org/pdf/PIH/PIH03.pdfs

http://www.ehow.com/info_8140399_library-types-cards-card-catalog.html

Notes

Unit 6: Library Surveys

CONTENTS

Objectives

After studying this unit, you will be able to:

- Understand the meaning of library surveys
- Know about the library surveys—purpose and uses.

Introduction

As the geo scientific activities of the organization increased, output of geosciences literature also increased, resulting in natural outcome of series of publications like Memoirs (1856), Records (1868), Palaeontologia Indica (1861) and other miscellaneous publications. Besides, a number of Indian geological literatures were also published in different periodicals of India and abroad. Therefore, collection of the library grew rapidly in that period and number increased to 23,000 in 1885.

International activities by GSI include some landmark events, which helped in recognition of GSIs contribution in the field of geology. Mention may be made about the organization of the 22nd International Geological Congress, which was held in Delhi in 1964 for the first time in Asia. Subsequently a number of International Seminars were organized by the International Division of GSI, the most important being the International Gondwana Symposium in Calcutta and the International Himalayan Geology Conference at Delhi in 1976. International Division also organized the Fourth South Asia Geological Congress (GEOSAS-IV) at New Delhi in November 2002.

Notes

Notes From the very inception, library was getting due importance so that "Accession" to the library was included as a distinct item in the first Record of Geological Survey of India (1868) and was continued every year. The collection was developing so rapidly that Mr. Bion, the Librarian had to compile in 1888 a complete catalogue of the library holding of Geological Survey of India.

Self Assessment

Fill in the blanks:

1. 22nd International Geological Congress, was held in Delhi in the year ..... .
2. International Division organized the Fourth South Asia Geological Congress (GEOSAS-IV) at New Delhi in November ..... .

6.1 Library Surveys—Purpose and Uses

The academic library is the nerve centre or the hub around which scholarship revolves. It is an indispensable instrument for intellectual development. A well stocked academic library is a storehouse of information, or a record of human experience to which users may turn to for data or information. Jubb and Green (2007) observe that academic libraries have for centuries played critically important roles in supporting research in all subjects and disciplines within their host universities or colleges. Opara (2001) posits that the library stands in the same relationship to the society as the memory of an individual by making available and accessible to its users information required for teaching and independent study. The main purpose of an academic library as stated by Aina (2004) is to support the objectives of an academic environment in the areas of learning, teaching, research, and service.

Oyesiku and Oduwole (2004) assert that in academic communities, libraries are indispensable. Guskin (1996) notes that the use of university libraries promotes active learning, thus contributing to students ability to think critically and work well independently or in group. An academic environment without a library is tantamount to a person without a brain. It would be pertinent to discover whether academic libraries are indeed living up to their objectives. The effectiveness and efficiency of services provided in academic libraries are mainly determined by library users. Behling and Cudd (1967) assert that the library user is regarded as the most logical source to determine whether the library is playing its role satisfactorily or not.

Perera (2005) submits that satisfying user needs is essential to the management of libraries. The management staff of a library should be aware of the current needs of their users, which may vary from one library to another as well as from time to time. Therefore, carrying out regular surveys on user needs at regular intervals on various aspects of library usage will be an invaluable guide in determining the future directions of library developments. Popoola (2001) observes that information availability does not mean accessibility and use and that academic libraries should stimulate primary demand for their products and services. This view is upheld by Mason (2010), who opines that librarians must be sympathetic and helpful to all students on the one hand and that on the other hand, students must be aware that librarians and faculty members are there to instruct and encourage their intellectual odyssey and should be seen as facilitators.

Several authors have written on the use of academic library. Amkpa (2000) in his study of the use of the University of Maiduguri Library discovered that a majority of students did not use the library effectively because they did not use the library catalogues. In a study on students and faculty use of

Notes

academic libraries in Nigeria, with particular reference to Delta State University, Okiy (2000) found that respondents used books more than other materials and that they browsed the shelves to locate these materials. Williams (1992) and Julien (2000), on the other hand, observed that regular library users are active learners who participate more in class, and read, write and study more. In a similar study on the use of Olabisi Onabanjo University Libraries, Oyesiku and Oduwole (2004) discovered that male students used the library more frequently than their female counterparts.

Ugah (2001) found out that textbooks account for most library visits. Don (2006) discovered that library computer access is utilized by students far more than faculty, while interlibrary loan services are used more by faculty members. He also noted that both undergraduates and faculty members appeared to be confident about finding needed print materials and accessing electronic resources at their institutions' libraries. It is evident that quite a few studies have been carried out on the use of academic libraries. This paper aims to reveal how the Covenant University Library has been used by its faculty and students.

Task Explain the main purpose of academic library.

Self Assessment

Multiple Choice Questions:

3. The main purpose of an academic library is to support the objectives of an academic environment in the areas of learning, teaching, research, and service is stated by:

   (a) Aina (b) Jubh

   (c) Amkpa (d) Oye siku.

4. Who submits that satisfying user needs is essential to the management of libraries:

   (a) Perera (b) Opara

   (c) Popoola (d) Mason.

Self Assessment

State whether the following statements are true or false:

5. Williams (1992) and Julien (2000), observed that regular library users are active learners who participate more in class, and read, write and study more.

6. Amkpa (2000) in his study of the use of the University of Maiduguri Library discovered that a majority of students did not use the library effectively because they did not use the library catalogues.

6.2 Summary

- As the geo scientific activities of the organization increased, output of geosciences literature also increased, resulting in natural outcome of series of publications like Memoirs (1856), Records (1868), Palaeontologia Indica (1861) and other miscellaneous publications.

Notes

- International activities by GSI include some landmark events, which helped in recognition of GSIs contribution in the field of geology.
- The academic library is the nerve centre or the hub around which scholarship revolves. It is an indispensable instrument for intellectual development. A well stocked academic library is a storehouse of information, or a record of human experience to which users may turn to for data or information.

6.3 Keywords

Academic Library : Academic library is a storehouse of information.

GSI : Geological Survey of India.

6.4 Review Questions

1. Write a short note on academic library.
2. What is library survey?
3. Explain the purpose and uses of library survey.

Answers: Self Assessment

1. 1964	2. 2002	3. (a)
4. (a)	5. True	6. True.

6.5 Further Readings

Books

Girja Kumar: *Philosophy of user Education*, Delhi, Vikas, 1983

Peter, Fox: *Library user education*

Line, Maurice (B): *Library Surveys,* London, Clive Bingley, 1982

Lancaster, (F.W): *The measurement and evaluation of Library Services*.

Online links

http://skyways.lib.ks.us/pathway/cameo/chap7.html

http://www.daisy.org/projects/

Unit 7: Planning Surveys

Notes

CONTENTS

Objectives

After studying this unit, you will be able to:

- Know about the planning surveys
- Understand the Collecting Information Processing
- Discuss the Analysis of Data Interpretation.

Introduction

The C.F. Goodwin Public Library, in Royse City, is completing a Three Year Strategic Plan (2012-2015) and is offering Royse City Residents the opportunity to have a say in programs and materials the Library offers, to make sure the Library remains a vital, well-used community service. Royse City residents of all ages are encouraged to complete this survey, including multiple members of households.

7.1 Use of Planning Surveys

1. **How do you, or would you, likes to use the library? (Select all that apply.)**

- Check out books
- Check out music
- Check out movies

Notes

- Check out audiobooks
- Study or research
- Download E-books and/or audiobooks
- Use public computers
- Use electronic resources
- Use photocopier/fax
- Read newspapers or magazines
- Use public meeting room
- Meet with friends
- Attend adult programs
- Attend youth programs
- Attend free classes
- Watch free movies

2. The C.F. Goodwin Library's current hours are Mon & Tues 11-8, Wed and Thurs 11-6, Fri 11-5, Sat 12-4. If funding were available for extended hours, which of the following would you be most likely to use?

The C.F. Goodwin Library's current hours are Mon and Tues 11-8, Wed and Thurs 11-6, Fri 11-5, Sat 12-4. If funding were available for extended hours, which of the following would you be most likely to use? Would recommend no change in hours

- Weekday and Saturday morning (open at 10:00)
- Friday and Saturday afternoon (open until 6:00)
- Sunday 1-5

3. Which of the following Library sponsored adult programs would you be interested in attending? (Select all that apply.)

Which of the following Library sponsored adult programs would you be interested in attending? (Select all that apply.) Book club

- Personal investment series
- Travel series
- Elder care series
- Language classes
- Cooking classes
- Cultural events
- Career counseling
- Other (please specify)
- Nature, gardening series
- Music, lectures, performances
- Film discussion series
- Computer classes
- Citizenship classes
- Parenting classes
- Health education

Notes

4. **Which of the following Library sponsored teen programs would you be interested in attending? (Select all that apply.)**

- Gaming (Wii, Kinects)
- Crafts
- Local band performances
- Anime club
- Other (please specify)
- Tutoring
- Teen advisory group
- Board games
- Creative arts

5. **Which of the following Library sponsored Family/youth programs would you be interested in attending? (Select all that apply.)**

- After school crafts
- Summer reading programs
- Family storytime
- Other (please specify)
- Music programs
- Storytelling
- Grade school book club

6. **Currently preschool storytime is offered on Wednesdays and Fridays at 11:00 a.m., and Family storytime at 6:30 p.m. on Tuesdays. What other times would you be interested in attending storytimes?**

After school

- Monday evenings
- Monday mornings
- Tuesday mornings
- Weekday afternoons
- Saturday afternoons

7. **If you have visited the Library in the past 6 months, please mark all the areas in which you think the Library can improve. (Select all that apply.)**

- More study room
- More study carrels
- More storytime/craft space
- More study tables
- More meeting areas
- More information books
- More popular fiction
- More audiobooks

Notes

- More movies
- More programs
- More public computers
- Other (please specify)

8. **If you haven't used the Library in the last 12 months, please tell us why. (Select all that apply.)**

- Limited time
- Homebound
- Prefer other activities over reading
- Library not open convenient hours
- Disagreement with Library policies
- Acquire reading materials elsewhere
- No transportation
- Library not conveniently located
- Owe fines to the Library
- Library doesn't have the materials I want
- Poor service
- Other (please specify).

7.2 Collecting Information Processing

Library Collection Development is the process of meeting the information needs of the people in a timely and economical manner using information resources locally held, as well as from other organization.

Collections are developed by librarians and library staff by buying or otherwise acquiring materials over a period of time, based on assessment of the information needs of the library's users.

In addition to ongoing materials acquisition, library collection development includes:

- the creation of policies to guide material selection
- replacement of worn or lost materials
- removal (weeding) of materials no longer needed in the collection
- planning for new collections or collection areas
- cooperative decision-making with other libraries or within library consortia.

Task Examine the collecting information processing in library.

Self Assessment

Notes

Fill in the blanks:

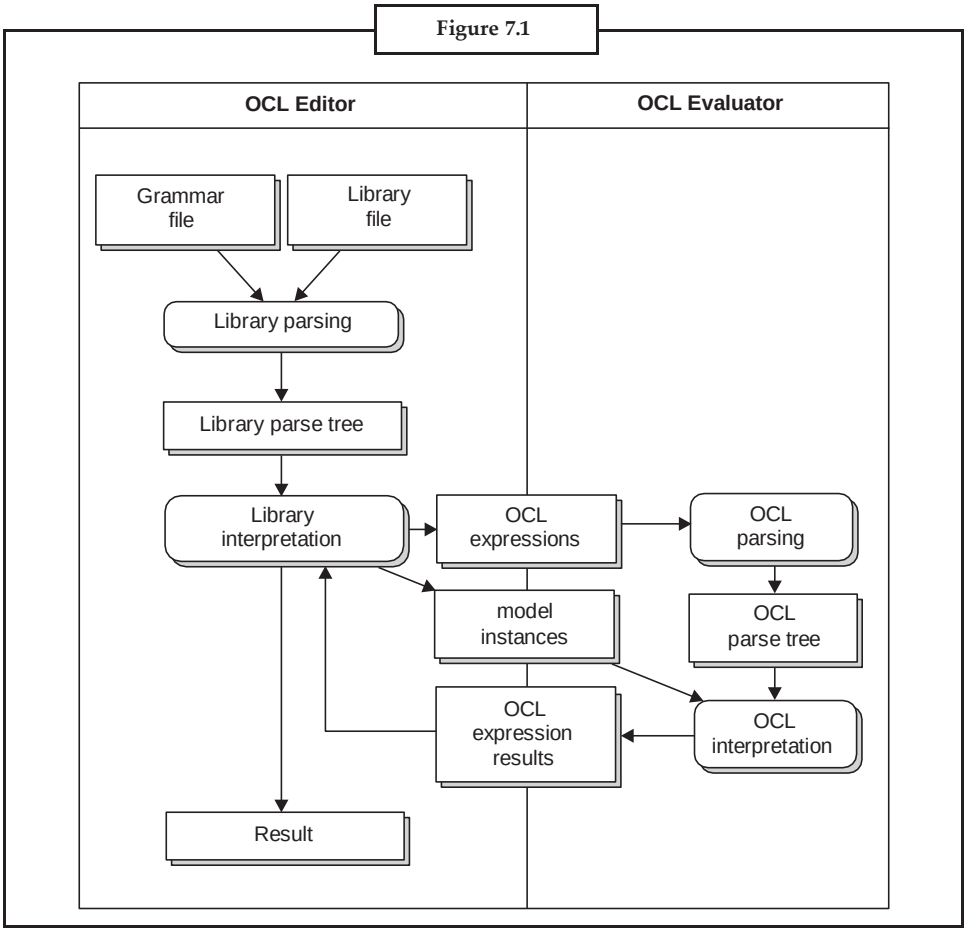
1.....is the process of meeting the information needs of the people in a timely and economical manner using information resources locally held, as well as from other organization.

2. Collections are developed by..... by buying or otherwise acquiring materials over a period of time, based on assessment of the information needs of the library's users.

7.3 Analysis of Data Interpretation

Library Interpretation process

Figure 7.1



In the library interpretation process, depicted in above, two parts are considered. The first one is related to the library concept and is in the scope of the **OCL Editor** functionality. The second one is related to the interpretation of standard OCL and is in the scope of the **OCL Evaluator** functionality. As mentioned in the architecture description, the **OCL Evaluator** uses **Eclipse OCL**. For the sake of simplicity this fact is neglected in the below description.

The interpretation process starts with two input files used in the **OCL Editor**. The first one is the grammar file with the definition of the libraries' concrete syntax. The second one is a library file with a library to be interpreted. The input library is parsed based on the grammar and an appropriate

Notes

parse tree is obtained. Tokens related to standard OCL are sent to the **OCL Evaluator** together with model instances. In the **OCL Evaluator,** OCL-expression-parsing and-interpretation take place, and the results are sent back to the **OCL Editor**. In the **OCL Editor** the results from the **OCL Evaluator** are used to obtain the complete interpretation of the input library.

Library Presentation

The Library of the Development Centre participated in the 75th World Library and Information Congress organized by the International Federation of Library Associations and Institutions (IFLA), this summer in Québec, Canada.

This year's IFLA Congress focused on "Libraries without borders: Navigating towards global understanding" and brought together 4500 professionals, from libraries, information technology and scientific publishing firms around the world. Participants learned about the latest trends in digital library services, innovation, heritage preservation, training and continuing education.

Michele Girard, librarian at the Development Centre, presented the new intranet library site and the Centre's most recent flagship publications. The new Library intranet site, based on a Wiki platform provides easy access and exchange of knowledge between OECD professionals and the Development Centre's library. The Wiki site, enables speedy and easy access to the library's numerous digital resources and was rated by IFLA participants as an outstanding innovative model.

Self Assessment

Multiple Choice Questions:

3. IFLA stands for:
   (a) International Federation of Library Association
   (b) International Federation of Laboratory Association
   (c) International Federation of Library Assembly
   (d) International Foundation of Library Association.
4. Who was the librarian at the Development Centre, presented the new intranet library site and the Centre's most recent flagship publications?
   (a) Michele Girard (b) Jubb
   (c) Green (d) None of these.

Self Assessment

State whether the following statements are true or false:

5. The Library of the Development Centre participated in the 75th World Library and Information Congress organized by the International Federation of Library Associations and Institutions (IFLA).
6. In the OCL Evaluator, OCL-expression-parsing and-interpretation take place, and the results are sent back to the OCL Editor.

7.4 Summary

- Library Collection Development is the process of meeting the information needs of the people in a timely and economical manner using information resources locally held, as well as from other organization.

Notes

- Collections are developed by librarians and library staff by buying or otherwise acquiring materials over a period of time, based on assessment of the information needs of the library's users.
- The interpretation process starts with two input files used in the OCL Editor. The first one is the grammar file with the definition of the libraries' concrete syntax. The second one is a library file with a library to be interpreted.

7.5 Keywords

OCL Editor : Related to the library concept.

OCL Evaluator : Related to the interpretation of standard OCL.

7.6 Review Questions

1. What is library collection process?
2. Explain the library planning surveys.
3. Write a paragraph on library presentation.
4. Discuss in detail the analysis of data interpretation.

Answers: Self Assessment

1. Library Collection Development
2. librarians and library staff
3. (a)
4. (a)
5. False
6. True

7.7 Further Readings

Books

Girja Kumar: *Philosophy of user Education*, Delhi, Vikas, 1983

Peter, Fox: *Library user education*

Line, Maurice (B): *Library Surveys*, London, Clive Bingley, 1982

Lancaster, (F.W): *The measurement and evaluation of Library Services.*

Online links

http://openmed.nic.in/73/01/iaslicpaper1.pdf

www.wikipedia.com

Notes

Unit 8: Techniques and Tools of Library Surveys

CONTENTS

Objectives

After studying this unit, you will be able to:

- Discuss primary data collction methods
- Explain questionnaires and interviews.

Introduction

Data Collection is an important aspect of any type of survey. Inaccurate data collection can impact the results of a study and ultimately lead to invalid results. In this section, we will discuss some of the most important methods of data collection.

8.1 Primary Data Collection Methods

In primary data collection, you collect the data yourself using methods such as interviews and questionnaires.

Notes

Notes The key point here is that the data you collect is unique to you and your research and, until you publish, no one else has access to it.

There are many methods of collecting primary data and the main methods include:

- questionnaires, interviews, observation, case-studies, diaries, critical incidents, portfolios.

8.2 Questionnaires

Questionnaires are a popular means of collecting data, but are difficult to design and often require many rewrites before an acceptable questionnaire is produced.

Advantages:

- Can be used as a method in its own right or as a basis for interviewing or a telephone survey.
- Can be posted, e-mailed or faxed.
- Can cover a large number of people or organisations.
- Wide geographic coverage.
- Relatively cheap.
- No prior arrangements are needed.
- Avoids embarrassment on the part of the respondent.
- Respondent can consider responses.
- Possible anonymity of respondent.
- No interviewer bias.

Disadvantages:

- Design problems.
- Questions have to be relatively simple.
- Historically low response rate (although inducements may help).
- Time delay whilst waiting for responses to be returned.
- Require a return deadline.
- Several reminders may be required.
- Assumes no literacy problems.
- No control over who completes it.
- Not possible to give assistance if required.
- Problems with incomplete questionnaires.
- Replies not spontaneous and independent of each other.
- Respondent can read all questions beforehand and then decide whether to complete or not. For example, perhaps because it is too long, too complex, uninteresting, or too personal.

Notes

Self Assessment

Fill in the blanks:

1. .....is an important aspect of any type of survey.
2. In primary data collection, you collect the data yourself using methods such as ..... and ..... .

8.3 Interviews

Interviewing is a technique that is primarily used to gain an understanding of the underlying reasons and motivations for people's attitudes, preferences or behaviour. Interviews can be undertaken on a personal one-to-one basis or in a group.

Did u know? Interviews can be conducted at work, at home, in the street or in a shopping centre, or some other agreed location.

Personal Interview

Advantages:

- Serious approach by respondent resulting in accurate information.
- Good response rate.
- Completed and immediate.
- Possible in-depth questions.
- Interviewer in control and can give help if there is a problem.
- Can investigate motives and feelings.
- Can use recording equipment.
- Characteristics of respondent assessed – tone of voice, facial expression, hesitation, etc.
- Can use props.
- If one interviewer used, uniformity of approach.
- Used to pilot other methods.

Disadvantages:

- Need to set up interviews.
- Time consuming.
- Geographic limitations.
- Can be expensive.
- Normally need a set of questions.
- Respondent bias–tendency to please or impress, create false personal image, or end interview quickly.
- Embarrassment possible if personal questions.
- Transcription and analysis can present problems – subjectivity.
- If many interviewers, training required.

Notes

Self Assessment

Multiple Choice Questions:

3. The technique that is primarily used to gain an understanding of the underlying reasons and motivations for people's attitudes, preferences or behaviour is called:
   (a) Interviews (b) Questionnaires
   (c) Written test (d) None of these.
4. Which one of the following is a advantage of personal interview?
   (a) Good response rate (b) Time consuming
   (c) Expensive (d) None of these.

8.4 Observation

Observation involves recording the behavioural patterns of people, objects and events in a systematic manner. Observational methods may be:

- structured or unstructured
- disguised or undisguised
- natural or contrived
- personal
- mechanical
- non-participant
- participant, with the participant taking a number of different roles.

8.5 Case Study

The case study has been especially used in social science, psychology, anthropology and ecology. This method of study is especially useful for trying to test theoretical models by using them in real world situations. For example, if an anthropologist were to live amongst a remote tribe, whilst their observations might produce no quantitative data, they are still useful to science.

Basically, a case study is an in depth study of a particular situation rather than a sweeping statistical survey. It is a method used to narrow down a very broad field of research into one easily researchable topic.

Self Assessment

State whether the following statements are true or false:

5. Observation involves recording the behavioural patterns of people, objects and events in a systematic manner.
6. Case study is especially useful for trying to test theoretical models by using them in real world situations.
7. A case study is an in depth study of a particular situation rather than a sweeping statistical survey.

Notes

8.6 Summary

- Questionnaires are a popular means of collecting data, but are difficult to design and often require many rewrites before an acceptable questionnaire is produced.
- Interviewing is a technique that is primarily used to gain an understanding of the underlying reasons and motivations for people's attitudes, preferences or behaviour. Interviews can be undertaken on a personal one-to-one basis or in a group.
- Observation involves recording the behavioural patterns of people, objects and events in a systematic manner.
- The case study has been especially used in social science, psychology, anthropology and ecology. This method of study is especially useful for trying to test theoretical models by using them in real world situations.

8.7 Keywords

Data Collection: Data collection is an important aspect of any type of survey.

Questionnaires : Questionnaires can be posted e-mailed or faxed.

Interviewing : Interviewing can be undertaken on a personal one-to-one basis or in a group.

Observation : Observation involves recording the behavioral patterns of people, objects and events in a systematic manner.

Case Study : Case study is an in depth study of a particular situation rather than a sweeping statistical survey.

8.8 Review Questions

1. What are the advantages and disadvantages of questionnaires?
2. Describe the advantages and disadvantages of interviews.
3. Explain observation.
4. Define case study.

Answers: Self Assessment

1.	Data collection	2.	interviews, questionnaires	3.	(a)	4.	(a)
5.	True	6.	True	7.	True.		

8.9 Further Readings

Books

Girja Kumar: *Philosophy of user Education*, Delhi, Vikas, 1983

Peter, Fox: *Library user education*

Line, Maurice (B): *Library Surveys*, London, Clive Bingley, 1982

Lancaster, (F.W): *The measurement and evaluation of Library Services.*

Online links

http://www.egyankosh.ac.in/bitstream/123456789/25801/1/Unit2.pdf

http://www.socialresearchmethods.net/kb/intrview.php

http://dge.stanford.edu

Unit 9: User Studies

Notes

CONTENTS

Objectives

After studying this unit, you will be able to:

- Describe the methods and techniques of user studies
- Know about the cell biology research laboratory.

Introduction

Academic libraries are increasingly advocating local user studies as a way to provide the library services that are relevant to the culture and user population of the institution. Good methods for studying user behavior and user needs can and should be shared; however, user needs are shaped by a variety of local factors. Replicating user studies at the local level can provide information for improving existing services or developing new ones. Training and experience of library staff in planning and implementing these studies varies widely, and good studies require collaboration and participation from many individuals. Duke University Libraries to conducted the valid studies of user needs and behaviors and use these findings to improve our efficiency and effectiveness. Our primary strategy is a staff development series aimed at increasing the awareness and skills of staff

Notes

in good research practice that will also build collaborative relationships and provide a support network for staff as they embark on user studies. Events are free of charge to all Duke Libraries staff, pending discussion with their supervisor. Staffs are also encouraged to include participation in this series in their professional development ("PEP") plan.

Notes Staff who attend a minimum of 4 events during the year and contribute to the planning or implementation of a user study will be eligible to receive a certificate of participation from Library HR.

9.1 Methods and Techniques

Survey of Relevant User Study Techniques

These techniques are appropriate for different stages in the development of an application, from initial concepts, to design and evaluation of a working application. Based on previous experience, we are in favor of using multiple techniques and advocate that the participants be representative of the target user population.

9.1.1 Contextual Field Research

Contextual field research (CFR) is a technique for gathering qualitative data by observing and interacting with users as they go about their normal activities. It is typically used to discover how users think and act rather than to test preformulated hypotheses. Data is collected by a combination of note taking, video, audio, and photographs. Some benefits of CFR are that it is conducted in the user's environment rather than the laboratory, users perform their normal activities rather than contrived tasks, and because no application needs to be in place to conduct CFR, it may be used to help guide the application's requirements and design. However, CFR has disadvantages. Users may alter their behavior when they know they are being observed. It can be more expensive than other qualitative techniques.

The cost of CFR can be difficult to gauge before it begins, as the evaluator may not know what he will learn, how much data he will have to collect, or how long the observations will take. He may also not know how long the data will take to analyze.

The evaluator cannot guarantee that the sessions he observes are typical for the users. Despite the disadvantages, the quality of data from CFR is often better than that from other techniques; evaluators do not have to rely on the user to remember everything about his work and environment, nor must evaluators worry about inventing appropriate tasks for the user to attempt.

9.1.2 Intensive Interviewing

Intensive interviewing is a technique for gathering qualitative data by asking users open-ended questions about their work, background, and ideas. Unlike more structured interviewing techniques, question order and content may vary from user to user. As with other interviewing techniques, evaluators must ask questions in such a way as to not influence users' responses. Several hours are often spent with each user over a series of one to two hour sessions; the total time spent with each user is typically between six and fifteen hours. Similar to CFR, data is captured by a combination of note taking, video, and audio. Some benefits of intensive interviewing are that evaluators learn about the user's work in the user's own words, and it is relatively inexpensive compared to observational

Notes

techniques. Intensive interviewing also helps evaluators establish a rapport with the user, which can be particularly useful when the evaluators intend to use additional user study techniques. Because intensive interviewing does not need to be performed in the user's environment, the evaluators do not have to disrupt that environment, and scheduling may be easier.

Because everyday actions can become automatic, a significant disadvantage of intensive interviewing is that users will often fail to mention important aspects of what they do. Similar to CFR, evaluators do not know how much time they will need to spend with each user. In theory, the interview process stops when the evaluator is not learning much new information. In practice, the interview process often stops before that point is reached, due to resource and time constraints. Another disadvantage is that audio transcription is time consuming. As mentioned above, intensive interviewing does not need to be conducted in the field. Though that has its benefits, it also has disadvantages. When interviewing is conducted in the field, being in the user's environment may serve to jog his memory; for example, he may be more likely to explain how he uses things in his environment. Outside of his environment, he may neglect to mention that information.

Notes Intensive interviewing can be a good technique to use when combined with observational techniques. It provides valuable information, but is not comprehensive enough to be used on its own.

Self Assessment

Fill in the blanks:

1 .....is a technique for gathering qualitative data by observing and interacting with users as they go about their normal activities.

2 .....is a technique for gathering qualitative data by asking users open-ended questions about their work, background, and ideas.

9.1.3 Usability Testing

Usability testing is a technique for gathering empirical data by observing users as they perform tasks with the application that is being evaluated. There are several variations of usability testing; we discuss informal, qualitative studies involving between five and fifteen users per study. Usability testing may be conducted in the field, but it is more commonly conducted in a usability laboratory where equipment for recording and observing the sessions is available. The goal of usability testing is to create an application that is easy to use and provides appropriate functionality for its users. This is usually done in an iterative process of testing followed by improvement.

Usability testing is inexpensive compared to other observational techniques, and results can be generated quickly. If testing is conducted in a usability laboratory, an additional benefit not shared by the other techniques we discuss is that members of the development team can observe the testing as it takes place.

A significant disadvantage of usability testing is that the testing situation is artificial: even if testing takes place in the field, both the tasks and situations are contrived. Even if the application tests well in the study, there is no guarantee that the application will be a success in practice. Another disadvantage is that, as with CFR, users may alter their behavior because they know they are being observed.

Notes

9.1.4 A Cell Biology Research Laboratory

Our primary collaborator on Labscape is the Cell Systems Initiative (CSI), part of the Bioengineering Department at the University of Washington. Five biologists share the immunology laboratory at CSI—three are full-time researchers and two are students.

The laboratory consists of one main room, two auxiliary rooms, and some equipment in the hallway. While performing work in the laboratory, the biologists frequently move between various stations, as the stations are highly task specific.

The biologists primarily work in the main laboratory, but occasionally use the other areas. Though the researchers each have a small station in the main laboratory that is considered their personal space, the majority of the laboratory and equipment is shared; the students do not have any personal space.

Self Assessment

Multiple Choice Questions:

3. CSI stands for:
   (a) Cell Systems Initiative (b) Cell System Interactive
   (c) Cell Social Initiative (d) None of these.
4. Cell biology research laboratory consists of:
   (a) One main room (b) Two main room
   (c) Three main room (d) None of these.

9.1.5 Information Needs

Biologists need to plan, execute, and document their laboratory work. In planning, records of previous procedures may be consulted to avoid introducing unintended variability into the experiment and to review previous results that may influence their plans. During the procedure's execution, biologists may need to access their plans, track progress, and record observations and data. Finally, biologists must formally document their work for future reference and legal compliance.

Biologists meet their information needs in a variety of ways; the most prevalent is through the use of pencil and paper. In addition, commercial laboratory information management systems and electronic laboratory notebooks can be used to organize and access data produced by laboratory experiments. Such systems have penetrated highly repetitive clinical and production laboratories, especially those having stringent legal record-keeping requirements. However, these tools are rarely found in research-oriented laboratories that require flexibility and rely on voluntary use of information technology. New computing tasks that do not contribute to the biologists' abilities to perform good experiments are quickly abandoned.

Labscape is a ubiquitous laboratory assistant that satisfies these information needs without distracting biologists from their work: it presents needed information in the context of the experiment, it records experiment data and observations as the work is performed, and it provides ubiquitous access to the experiment record. As we develop a better understanding of the biologists' needs and how technology might help, we can further enhance the environment to improve their ability to focus on the biology rather than on the information support system.

Biology research is a goal-oriented activity that allows for iterative assessment of performance on similar tasks before and after the deployment of new technologies. As a result, Labscape is an excellent test case for user study techniques in the iterative design and evaluation of ubicomp applications.

Notes

9.1.6 User Study Techniques Applied to the Design of Labscape

In this, we discuss how two user study techniques helped us design Labscape: intensive interviewing and contextual field research (CFR). To design Labscape, we needed to gain a general understanding of the biologists' work and environment. We also needed answers to some specific questions. In particular, we were interested in learning whether computing should be distributed throughout the environment, carried by the user, or a combination of the two. In addition, we wanted to know where, how, and why biologists accessed and recorded information during experiments.

We started with intensive interviewing, as it is a relatively fast way to obtain a lot of information. Because we also intended to use CFR, intensive interviewing allowed us to establish a rapport with the biologists, learn the rules of the biology laboratory, and get an idea of what we would observe. The interviews were conducted at CSI and at Intel Research Seattle. For the interviews conducted at Intel Research Seattle, a floor plan of the biology laboratory and dozens of photos of the laboratory, tools, and equipment were available for reference purposes. Before we finished the interviews, we started CFR.Notes were taken to capture data for both studies; in addition, audio recordings were made of the interviews, and still photographs were taken during the CFR. Most of the results discussed below came from a combination of the two techniques.

Self Assessment

State whether the following statements are true or false:

5. Labscape is a ubiquitous laboratory assistant that satisfies these information needs with distracting biologists from their work.
6. To design Labscape, we needed to gain a general understanding of the biologists' work and environment.

9.2 Summary

- Good methods for studying user behavior and user needs can and should be shared; however, user needs are shaped by a variety of local factors. Replicating user studies at the local level can provide information for improving existing services or developing new ones.
- Contextual field research (CFR) is a technique for gathering qualitative data by observing and interacting with users as they go about their normal activities.
- Usability testing is a technique for gathering empirical data by observing users as they perform tasks with the application that is being evaluated.

9.3 Keywords

User Study Techniques : User Study Techniques are appropriate for different stages in the development of an application.

Contextual Field Research (CFR) : Contextual Field Research is typically used to discover how users think and act rather than to test preformulated hypothesis.

Intensive Interviewing : Intensive interviewing can be a good technique to use when combined with observational techniques.

Notes

Usability Testing	: Usability testing is inexpensive compared to other observational techniques and results can be generated quickly.
Labscape	: Labscape is an excellent test case for user study techniques in the iterative design and evaluation of ubicomp applications.

9.4 Review Questions

1. Write a note on CFR including its advantages and disadvantages.
2. What are the advantages and disadvantages of usability testing?
3. Write a short note on information needs.
4. What is the function of labscape?

Answers: Self Assessment

1. Contextual field research	2. Intensive interviewing	3. (a)
4. (a)	5. False	6. True

9.5 Further Readings

Books

Lancaster, (F.W): *If you want to evaluate your Library*

Prasher, (R.G): *Information and its communication*

Laloo, (Bikika Tariaing): *Information needs, information seeking behaviours and users*, Delhi, Ess Ess, 2002

Jordan, (Peter): *The academic Library and its users,* Gover, 1998.

Online links

http://www.pathways.cu.edu.eg/subpages/

http://www.librijournal.org/pdf/1999-3pp132-141.pdf

Unit 10: Evaluation of User Studies

Notes

CONTENTS

Objectives

After studying this unit, you will be able to:

- Explain evaluation of user studies
- Describe evolution of the system and interface design.

Introduction

The Alexandria Digital Library (ADL) is a *geolibrary* (Goodchild, 1998; National Research Council, 1999) where a primary means of describing and finding information is with a geographic *footprint.* A *footprint* shows a location on the surface of the Earth associated with either a collection object (CO) (such as a map, an aerial photograph, or a remote-sensing image) or with a user's query. The *footprint* may be represented as a point or polygon, with latitude and longitude co-ordinates. When a user queries the ADL collections through the user interface, the user creates a *footprint* on an interactive map to indicate the area of interest (the *query area*). The *query area* is matched with the CO footprints recorded in the metadata to retrieve relevant collection objects—that is, COs "about" the query area.

This means that the user can choose arbitrary query areas, not just geographic areas that have place names. This also means that COs about the query area do not have to have the names associated with them that the user enters for a text based query. For example, the user's query might be of the type "What do you know about the Santa Barbara area?" Which can be translated into a *query area* for Santa Barbara, which can then be used to find COs with matching *footprints.*

This approach opens up the possibility of finding all types of information related to an area, including aerial photographs, remote sensing images, data sets, and texts. Geographic *footprints* can be applied to both on-line-accessible (*e.g.*, digital images) and off-line-accessible (*e.g.*, paper maps) COs, giving

Notes

the user an integrated means of locating information about a geographic location. This geo-spatial approach to digital library information management and retrieval presents a new environment for users. Studies showing how the geolibrary approach will affect user work practices are just beginning. ADL has proven to be a rich environment to begin to learn how users will use such a system, what they would like for it to be able to do, and how they react to the iterative designs of a developing geolibrary prototype.

Notes This first describes the evolution of the ADL system and interface design and then provides a brief overview of the research and test bed activities. Descriptions are then given for ADL's three primary user communities (earth scientists, information specialists, and educators), the user evaluation methodologies applied, and the findings from working with these user groups. Finally, some thoughts are proposed about the potential impacts of geolibraries (ADL in particular) on user communities, on research libraries, and on teaching.

Self Assessment

Fill in the blanks:

1. The Alexandria Digital Library (ADL) is a ..... .
2. Geographic footprints can be applied to both ..... and.....COs.

10.1 Evolution of the System and Interface Design

The ADL is one of the six digital library funded by NSF, DARPA, and NASA. ADL's collection and services focus on geo referenced information: maps, images, data sets, text, and other information sources with links to geographic locations. The ideas for ADL grew out of a previous project funded by the Research Libraries Group known as GRIN—the Geographic Resources Information Network (Research Libraries Group, 1989). The first ADL prototype was called the Rapid Prototype and was distributed on CD-ROM (Alexandria Digital Library—UCSB, 1995). This was followed by a WWW version, known as the beta web prototype, in 1996 (Smith, et al., 1996).

The web prototype was accompanied by an active user evaluation phase that included:

(1) collecting data about the beta testers (anyone who signed up to use the web prototype),

(2) an on-line survey of beta testers,

(3) target user groups, and

(4) ethnographic studies (Hill et al., 1997).

There were also three ADL Design Review meetings during this time that brought together invited parties to discuss and advise on the goals and the progress of the project. Two of these took place over several days, and involved 30–50 people; the third was a panel of system designers who met for 2 days to advise on system specifications.

The results of these user evaluations were fed back into the design of the current Java-based interface and supporting system, which has been subjected to two formal internal evaluations involving personnel from the University of California, Santa Barbara (UCSB) and University of Colorado at Boulder. The Java user interface client, known as JIGI for "Java Interface to Geospatial Information," has undergone numerous interim releases. The database and middleware components of the system have been redesigned and the collections of data and metadata continue to grow in complexity.

Notes

Current information about ADL, including descriptions of the current JIGI interface with screenshots and a brief overview of the functionality, is available at http://www. alexandria.ucsb.edu.

Using ADL, one can

1. Find information about a geographic area—the "what's there" question that starts with a query area drawn on a map browser.
2. Find where a place or feature is located—the "where is it" question that starts with a place or feature name.

These basic query types can be combined into "what's there" questions that start with place names, as in the "What do you know about the Santa Barbara area?" example. The query to ADL can also contain other parameters such as a date range, a type of information (e.g., *maps* or a particular feature type such as *rivers*), a format (*e.g.*, TIFF), freetext, assigned terms, originators, or identifiers (*e.g.*, control numbers).

A selection can be made among the multiple collections available for searching. The items returned that match the query parameters can be evaluated by their footprints, thumbnail and browse images, and metadata attributes. Thumbnail images are small image representations, Browse images are larger, and provide more detail. Selected items can be put aside in user-named folders. On-line data can be downloaded directly to local storage. Interfaces have been tested that provide access to application packages with which items from ADL's collections can be processed.

Interaction of Evaluation with Design and Implementation

There are obvious problems with evaluating an innovative and evolving system, and with eliciting from users what they might do with such a system if it existed. With new software systems there is a degree of education involved, because users must understand the new capabilities to evaluate them. The process may be thought of as a cycle in which the implementers build certain functionality, users are introduced to the potential of the new features, the users request additional functionality (some of which may be part of the system but not recognized), and the implementers modify the design. This has been the pattern with ADL.

Did u know? It describes the formative evaluation process that has captured the development cycle and guided the evolution of the geo library system and the understanding of potential use.

Self Assessment

Multiple Choice Questions:

3. The first ADL prototype was called:
   (a) Rapid prototype (b) Research libraries
   (c) Both (a) and (b) (d) None of these.
4. ADL is funded by
   (a) NSF (b) NASA
   (c) GRIN (d) None of these.

Notes

Self Assessment

State whether the following statements are true or false:

5. Using ADL, one can find information about a geographic area.
6. Thumbnail images are large image representations, Browse images are larger, and provide more detail.

10.2 Summary

- A *footprint* shows a location on the surface of the Earth associated with either a collection object (CO) (such as a map, an aerial photograph, or a remote-sensing image) or with a user's query.
- The ADL is one of the six digital library funded by NSF, DARPA, and NASA. ADL's collection and services focus on geo referenced information: maps, images, data sets, text, and other information sources with links to geographic locations.

10.3 Keywords

ADL : The Alexandria Digital Library is a geolibrary where a primary means of describing and finding information is with a geographic footprint.

Footprint : Footprint may be represented as a point or polygon with lattitude.

10.4 Review Questions

1. Write a short note on ADL.
2. What do you mean by footprint?
3. Explain in detail the evolution of the system and interface design.

Answers: Self Assessment

1. geolibrary	2. on-line-accessible, off-line-accessible	3. (a)
4. (a)	5. True	6. False

10.5 Further Readings

Books

Girja Kumar: *Philosophy of user Education*, Delhi, Vikas, 1983

Peter, Fox: *Library user education*

Line, Maurice (B): *Library Surveys,* London, Clive Bingley, 1982

Lancaster, (F.W): *The measurement and evaluation of Library Services.*

Online links

http://www.dlib.org/dlib/may04/goodchild/05goodchild.html

http://en.wikiversity.org/wiki/

http://www.librijournal.org

Unit 11: User Education

Notes

CONTENTS

Objectives

After studying this unit, you will be able to:

- Explain user education-concepts, goals and objectives
- Describe different levels of user education
- Realise techniques and methods.

Introduction

The various definitions of information literacy focuses on how it has evolved from library user education, and the aims of various information literacy programmes. It emphasize that information literacy is a signal skill for lifelong and flexible learning situations. It indicate the key role of librarians in information literacy and identify some barriers to librarians' effective involvement in and delivery of these programmes. It does not cover pedagogical elements such as methods of teaching information literacy and nor does It discuss the particular content of such programmes though It address generic elements. Information literacy is not some entirely new phenomenon. The term "information literacy" first appeared in library literature during the 1970s and it is now sometimes wrongly employed to describe library user education and bibliographic instruction.

However, information literacy programmes do a great deal more than tell how to use the Library. Information literacy is vitally tied to the strategic value and use of information. For the purposes of

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this is to talk about those programmes which ensure that people (of school age and up) are taught about information not only available within the library in print and digital form, but are also provided with the context in which information is created, located and utilized in the wider world of information and knowledge.

The ever expanding volume of information available through print and digitized formats has the capacity to both stimulate and overwhelm. The digitizing of information and the development of IT based tools to access, manipulate and deliver information available in electronic formats is an element of what has been called the Information age. The vast quantity of information available in a variety of media and the fact that especially through the Internet much information has not been through a process of peer reviewer scholarly editorial process before being widely disseminated means that it is imperative that users apply critical thinking to the information gathering and evaluating process if their own work is to withstand scrutiny.

11.1 Concepts

Concepts of User Education

Tremendous increase in the volume of publication as well as the resulting complexity of libraries and the methods by which literature is organized and disseminated necessitate the user education.

Rapid changes in teaching methods and the resulting trend towards a wider use of multi-media learning resources ranging from the press cutting to slide tapes package and multiple kit. Such format has added new dimensions to the learning process in all types of institutions.

Dr. S.R. Ranganathan's Second Law is user oriented law. Every citizens has the right to access the information (Right to Information Act, 2004). This law guides the library or information professionals to take care of information users, so that they can access information without any obstacle. Here is a necessity of User Survey, User Study and User Education. User Orientation may help in acquiring the need and satisfying the purpose.

According to Dr. S.R. Ranganathan, books are for use. Every reader is a book. Every book is a reader. Tape recorder saves the time of the reader and a library is a growing organism. The above mentioned laws expected to meet the challenges of fast paced social and cultural changes which affect the library users. Hence, library serves humanity. Library is a store house of knowledge. One must use modern technology to gather information from the library.

Did u know? Education is a long life process, there is no end. As far as library activities are concerns, the users are illiterates.

They need some sought of user education on how to use library resources and services. Because the collection libraries are very complicated. To know how to use and what the service available is etc., they must need assistance and guidance (Instructions, Initiation and education).

It has its own objectives. Broadly it means to bring the awareness about or to guide the users, about library facilities, collection, services, etc., for new users this type of guidance is necessary.

Definitions

According to Shahi "It is a process of activities involved in making the users of the library conscious about tremendous value of information in day to day life to develop interest among the users to seek information as and when they requires".

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Dramatic changes in technology and society are having a considerable impact on libraries and their instruction programs. These changes have created an urgency to teach users how to become more effective, efficient, and independent in their information searching. In response to this, the goals of library user education have expanded from teaching tools to teaching concepts and from library instruction to information literacy and lifelong learning.

The Gateway to Information, developed by the Ohio State University (OSU) Library, is one response to the current issues and problems and those foreseen in the future of libraries and information. The Gateway to Information was designed to help undergraduate and graduate students identify, find, evaluate, and select the most useful information for their needs without help screens or handouts. The Gateway guides users in applying search strategy concepts and critical thinking to their information seeking.

Under development since 1987, The Gateway to Information has been continuously evaluated by users; revisions have been made based on the results of more than 7,000 evaluations. The Gateway is available on most public terminals in the OSU library system. It will soon be accessible via the Internet and will integrate the sources of the Internet into its narrative. The information explosion has hastened the need for development of expert systems like this.

The origins of library user education can be traced back more than 170 years. The earliest evidence of instruction—a librarian lecturing to undergraduates—was found at Harvard College in the 1820s. Most early academic librarians were professors with part-time library appointments who taught the use of libraries for academic purposes. Library lectures were the chosen form of instruction by such institutions as Harvard, Indiana University, and Columbia. Separate courses were implemented in the late 1800s by Ray Davis at the University of Michigan, Azariah Root at Oberlin College, and others. Over the next few years, about seventeen other institutions adopted instruction lectures or courses.

By 1900, six of the seventeen institutions examined were no longer providing library instruction, and by 1903, instruction had been dropped by two more institutions. These instruction activities existed from one to fifteen years with an average of about five and a half years (Hernon, 1982, p. 25). Why were these programs of such comparatively short tenure? In the 1860s, social changes and developing technology shaped education and its goals. These same factors led to the early rise and rapid decline of library instruction between 187(land 1914).

As academic libraries grew in number, however, librarians became concerned about making collections accessible, and the importance of library instruction again became apparent. In the early 1900s, the resurgence was led by William Warner Bishop and William Frederick Poole who espoused concepts of library instruction that are valid today. They wanted to make students independent learners and to clarify the role of the library in the university. In 1912, Bishop noted that librarians and professors were looking at methods of library instruction and doing some experimenting (Tucker, 1979, p. 273). These were largely individual efforts and did not result in established programs. There was some advocacy for course-related instruction instead of the separate course, but the concept was not developed.

Content

Content covered and methods used are central to understanding the current status of user education programs. For more than a decade, the consensus has been that library user education should focus on the many sources of information available and not on the mechanics of using the system. Many instruction librarians have espoused, and continue to espouse, the search strategy approach because it provides a conceptual framework for teaching students research techniques. This idea has dominated library instruction since the mid 1970s because it is a simple and adaptable teaching framework. It teaches the use of different types of tools and resources and provides an outline for systematic

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information seeking that is broadly applicable, comprehensive, and time saving. In addition to teaching students how to find information, librarians now recognize the importance of teaching critical thinking skills to enable students to evaluate and select the best information for their needs.

Impact

What has the impact of library instruction been as measured in evaluation studies? There are two purposes for evaluation. One is to measure the effectiveness of instruction for guidance in how to improve the program (formative evaluation). The other is to measure the effect of library instruction on the students and their performance (summative evaluation). Most evaluation of library user education has been formative. Librarians have tended not to focus on evaluation studies that would demonstrate the impact of library instruction on student learning or attitude. Most evaluation studies done in the 1970s appear to fall into one of three methods: opinion surveys, knowledge testing, and library use observation.

The CLR/NEH program required close work with the faculty. Funded for three to five years, the total cost was more than $2.3 million. However, a study done in the late 1970s revealed that most of the programs no longer existed. The most common reasons for failure were staff turnover, lack of commitment from the library and institutional administrations, poor co-operation from the faculty, lack of adequate planning with faculty input, and insufficient evaluation studies. Involvement of the faculty depended on stipends which ceased when the grant ended. Staff energies and staff turnover affected programs. Other factors were lack of funding and failure by librarians to plan, prepare, implement, and evaluate carefully their instruction programs. Gwinn (1980) concluded, however, that programs were having a positive effect on education even though progress was slow.

Miller (1978), in his study of programs of thirteen libraries, observed that alternatives to formal library instruction programs were point-of-use devices, expanded reference service, and written guides which, in his opinion, were the best alternatives if they were used. Another issue is where does the responsibility lie for developing and maintaining the user education program? Breivik (1982) believes that a growing program needs a single person with a defined role to provide leadership and handle the day-to-day issues. Carlson and Miller (1984) noted such problems as cost, faculty dependency, the challenges of teaching, and the difficulty of evaluation. Other complications they identified were the difficulty of achieving a balanced program and the inability of students to transfer library knowledge from one course to another.

"Information literacy will be essential for the growing cadre of knowledge workers in the 21st century" (Green and Gilberth, 1995, p. 23). Information literacy, which is now the avowed objective of most library user education programs, is an expansion of instruction as to objectives, materials, and methods. It has evolved in the way that instruction evolved from library orientation into bibliographic instruction. The Think Tank II report on bibliographic instruction defined "information literacy" as encompassing the entire world of information and seeking to prepare people to pursue the concept of lifelong learning. Information literacy extends its objectives to teaching information-seeking skills to all ages and at all times. It prepares people to use information effectively in any situation. There are no boundaries for information anywhere in any format. Information literacy may be defined as the ability to access and evaluate information effectively for problem solving and decision making. Information literate people know how to be lifelong learners in an information society (Rader and Coons, 1992, p. 113).

To achieve these goals, librarians and faculty will have to work closely together in developing teaching strategies using the latest technologies. One example of the integration of information literacy into the academic curriculum is found at Cleveland State University, where the curriculum has been rewritten to include an information literacy component. Librarians work with the faculty to include information literacy modules in courses. The library is implementing a comprehensive information literacy program that will include the teaching of critical thinking skills and evaluation of the program itself (Rader, 1990).

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The Middle States Association Commission on Higher Education has indicated in its "Framework for Outcomes Assessment," issued in 1991, that faculty should assume some responsibility, along with administrators, librarians, and other information specialists, for information literacy for students. The statement implies that students need to acquire more complex information-seeking skills as they progress in their academic education. The commission statement indicates that this can best be done through partnerships across academe. The commission advocates examining course syllabi to determine how well the teaching of these skills is integrated into the curriculum.

Self Assessment

Fill in the blanks:

1. The term "information literacy" first appeared in library literature during the year ..... .
2. According to....., books are for use. Every reader is a book. Every book is a reader.
3. The Gateway to Information, developed by the .....Library.
4. "Framework for Outcomes Assessment," issued in the year ..... .

11.2 Goals and Objectives

Academic libraries support the teaching and research needs of institutions they serve. It is the libraries' responsibility to ensure that the use of its information sources, resources and services are maximized to benefit its users, hence the necessity for user education programmes.

Developments in computers, microelectronics, and communication technologies have radically changed the library and information environment. Gone are the days of stand-alone libraries, in which a library was judged less by the quality of its resources and services than by the number of documents it had available.

Traditional libraries were dominated by print publications and the access mechanisms were also by and large manual. The paradigm shift from stand-alone libraries to library and information networks, available via the Internet, can provide end-users with a seamless connection to Internet-based services.

Moreover, we are surrounded by automated, digital, and virtual libraries as well as by networked data, specialized networks, and library networks. Multimedia and the Internet have further made the job of library and information professionals more challenging.

Notes The development of new technology makes direct access to information easier for users, and, while information skills are required to collect and present that information, in the future there is likely to be less of a role for information workers as intermediaries between users and information sources.

Definition

Fleming (1990) defines user education "as various programmes of instruction, education and exploration provided by libraries to users to enable them to make more effective, efficient and independent use of information sources and services to which these libraries provide access".

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The Challenge in Information Services

Information has become more complex and expensive. The traditional services, such as reference service, current awareness services, and selective dissemination of information need be supplemented by "Selective Elimination of Information," the evaluation of information to separate quality information from junk. In this context, the basic challenge is to convince and convert traditional users into users of Internet-based resources and services. Information literacy can contribute to developing information technology (IT) related competencies among end-users as it includes basic computer and network literacy. The aim of information literacy is to make information users capable of locating, retrieving, and using information.

The Changing Academic Library

During the recent economic recession, money for education and libraries in India became very tight, requiring cuts in serial subscriptions and book purchases for academic libraries. At the same time, subscription prices were soaring, as were the costs and number of databases and journals available.

Library planning is now essential in order to maximize available resources and take advantage of emerging technologies. Academic libraries in India should now implement a Library Planning and Action Initiative (LPAI).

To accomplish the goals of the LPAI, a planning team should be established in every academic library. An advisory task force must be formed to work closely with the planning team. The advisory task force members could be chancellors, vice-chancellors, other academic administrators, academic librarians, a representative from the Librarian's Association, information technologists, and other faculty including representation from faculty governance bodies.

The Need for User Education

1. User education is essential. It helps publicize library services. It improves the image of the library. Above all, user education and training are the best ways to implement Ranganathan's five laws of library science.
2. User education and training are often fee-based, because developing the infrastructure for the network environment is very costly. The world still appears to be suffering from an exponential increase in all kinds of information – bearing material. Even if much of this is of little value, it still has to be shifted to find the required information.

Several new methods of information transfer, such as mechanized information retrieval systems, are being developed, giving rise to new aspects of user education. Both educational and research topics are becoming increasingly multidisciplinary in nature, thereby drawing information from a wider range of sources. Not being able to find necessary information delays research or decisions. Lack of awareness of information leads to duplication of effort. Various estimate of the extent and cost of this have been made.

Planning of User Education

The establishment of the UNISIST programme within UNESCO as an Inter-Governmental programme to stimulate and guide voluntary Co-Operation in the flow of S&T information at the national, regional and international levels, and the launching of national information systems, such as NISSAT in India, has focused attention on the need for training the users in the effective use of information.

The UNESCO General Information programme (PGI) has been making organized efforts to promote user education and training programmers through organizing seminars, workshops, and developing

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tools, publications and guidelines. The 'UNISIST Guide for Teachers' and the 'Guidelines for Developing and Implementing a National Plan for Training in information use', are the two vary useful publications.

Several countries, particularly USA and UK, have made organized efforts in promoting programme for educating and training information users and extensive literature in the field is available to guide the formulation of such programmes in India.

Libraries provide a support service to the institutions they serve. It is important to understand the goals of the institution served to enable librarians to come up with a mission statement which should reflect the library's commitment in helping the institution achieve its goals. Thorough planning is needed to ensure that all activities carried out are towards meeting the institutional goals. Commitment to educate users should be reflected in the mission statement of the library. This should be followed by a written user education policy.

User education programmes should aim to make all users aware of the information resources available, both directly in the library and from external sources and enable users to enjoy the search for information. It is interesting to note that many of the objectives listed by libraries in this study stressed the self sufficiency of users through a successful user education programme. Written policies and objectives on user education provide a basis for self-evaluation. This could be used to answer questions like, is the user education programme achieving what it was set out to achieve? If not more detailed studies on user information needs should be conducted. User education programmes need continuous revision to keep up to date with the changing information environment. Written objectives for instruction should be derived from the written profiles of the information needs of the users. Universities have unique identities "each university library must design its own course to meet the immediate needs of its clientele as well as fit into the university teaching programme". This is evident in the responses; some libraries' concern is introducing first year students to the library "some of whom have never used a library before".

Some specific components of user education are:

- Librarians introducing new students, some of who come from school systems where there are generally no school librarians or well established libraries, to the complexities of university library facilities.
- Librarians familiarizing users, who have little or no information seeking skills at all with a broad range of library resources in order to develop library skills.
- Librarians educating users on how to find materials manually or electronically using on-line public access catalogues and CD-ROMs.

It is generally agreed that there are three levels of user education:

The library orientation is to be given at the beginning of every academic year or semester it should be applicable to all those who are using the library for the first time.

- The second stage, *i.e.*, subject oriented instruction for undergraduates at a stage when they are admitted to a special branch or subject of their choice or at the time of project work.
- Literature search training should be provided at the beginning of their research work.' The literature search is specified as being for post-graduate students but with students developing as self-guided independent learners there is no reason why this should be the case. Depending on the student, the course, and the assignment there may be some overlap between the three stages.

Knowing which level of user education is required by a particular group of students enables the librarian to determine the aims and objectives of the session.

Notes

The three main aims of user education regardless of level are:

- To train the user to exploit the library resources effectively.
- To provide the user with the skills for independent information seeking.
- To encourage the user to seek the assistance of library professionals.

User education for students is necessary

If study programmes are to be based on the students' active search for knowledge, then students must acquire sounder knowledge of searching for, evaluating and utilizing scientific and scholarly information.

Libraries today offer comprehensive courses in library orientation and information retrieval (*i.e.*, "user education" in library terminology). Such courses have become better organized and certain larger libraries have special user education divisions. However, the courses vary in scope and are not always well integrated into the teaching process. User education ought to be integrated as much as possible into the different parts of each study programme. Moreover, librarians and lecturers in co-operation with each other should hold the courses.

User education for lecturers

New pedagogic methods, new technology and extended study programmes necessitate the further development of user education. Development is being hindered by the fact that user education often lacks permanent formal status and position, and shortcomings in the pedagogic competence of librarians, whose education has so far included little training in teaching skills. Moreover, libraries must offer a much broader selection of courses in user education for lecturers. Ideally lecturers ought to be much more proficient in information retrieval and library orientation than their students, so that they can actively use the library as a resource in their teaching. This is not always the case, which can be difficult to admit.

11.3 Levels

This study examines how user education programmes are planned, organized and implemented in academic libraries in Southern Africa. It further examines the influences of information technology on user education and on the problems experienced in various institutions.

Fleming (1990) defines user education "as various programmes of instruction, education and exploration provided by libraries to users to enable them to make more effective, efficient and independent use of information sources and services to which these libraries provide access".

Some specific components of user education are:

1. Librarians introducing new students, some of whom come from school systems where there are generally no school librarians or well established libraries, to the complexities of university library facilities.
2. Librarians familiarizing users, who have little or no information seeking skills at all with a broad range of library resources in order to develop library skills.
3. Librarians educating users on how to find materials manually or electronically using on-line public access catalogues and CD-ROMs.

Notes

Literature Review

An evaluation of user education literature reveals the importance of user education in academic libraries. It is believed that improving users' knowledge of their libraries' collection and services could be a motivating factor for more usage and more demands on the library.

Mews argues that training in the use of information should be part of all students' education. There is need for instruction in the use of libraries and information services. He sees user education as a continuous process which should cover use of the catalogue, abstracts, bibliographies and reference books. At the post-graduate level detailed instruction in methods of searching and formulation of clear requests, is necessary.

Foss (1994) corroborates this by arguing that user education should be organized at different information levels to ensure that needs of all users are met. Foss outlines these different levels within the Fourah Bay College's (Sierra Leone) user education programme. The first stage provides a general introduction to the library. The next stage is concerned with more subject and bibliographic material. The third stage of instruction would cater for the needs of advanced and research students.

While Foss (1994) basis his levels of user education on information levels, the China Ministry of Education (1995) recommended three levels of user education based on the users educational background. The first level is library orientation for freshmen; the second courses of bibliographic instruction for juniors and seniors; and the third is more sophisticated user education involving the sorting and summarizing of documentation and the studying and analyzing of information for all graduate students.

Ford (1994) notes that in South Africa, Australia and the Netherlands issues related to information access and use have become an increasing concern and, therefore concepts of user education and information literacy are being incorporated in their school and higher education curriculum. She further points out that the International Federation of Library Associations and Institutions (IFLA) recognizes the importance of the development of information seeking skills to all members of society.

The above views indicate that user education is a continuous process which has to be performed for all user groups. To ensure that users are equipped with efficient methods of accessing, evaluating information from a variety of sources and synthesizing the information into a coherent whole, training can be organized around level of difficulty of information and or users educational background. The goal of user education should be to improve the quality of users research output and ensure lifelong learning.

Purpose of Study

The purpose of this study is to examine how academic libraries are responding to the challenge of teaching students information seeking skills in this rapidly changing information environment.

The following aspects of user education are examined:

1. User education planning Policies and objectives.
2. Organization and implementation of user education.

1. Co-ordination.
2. Library orientation and bibliographic instruction. Library orientation refers to the basic introduction to the library services given to new students. This includes library tours, library guides on the layout of the library and library registration. Bibliographic instruction includes introduction to the use of catalogues and instruction given on the use of abstracts, indexes, bibliographies and reference books, regardless of whether they are in print or electronic form.

Notes

3. Ways in which user education is evaluated.
4. Current problems and barriers to user education programmes.
3. User education and technology.

Self Assessment

Multiple Choice Questions:

5. Who defines user education "as various programmes of instruction, education and exploration provided by libraries to users"?
   (a) Fleming (b) Miller
   (c) Carlson (d) Gwinn.
6. LPAI stands for:
   (a) Library Planning and Action Initiative (b) Library Proposal and Action Initiative
   (c) Laboratory Planning and Action Initiative (d) None of these.

11.4 Techniques and Methods

Developments in computers, microelectronics, and communication technologies have radically changed the library and information environment. Gone are the days of stand-alone libraries, in which a library was judged less by the quality of its resources and services than by the quantity of materials it had available. Traditional libraries were dominated by print publications and the access mechanisms were also by-and-large manual. The paradigm shift from stand-alone libraries to library and information networks, available via the Internet, can provide end-users with connection to Internet-based services. Moreover, we are surrounded by automated, digital, and virtual libraries as well as by networked data, specialized networks, and library networks.

Did u know? Multimedia and the Internet have further made the job of library and information professionals more challenging.

Other Developments

- growing recognition of the importance of life-long and individualized learning
- a new enthusiasm for research library instruction and bibliographic control and automation has emerged
- bibliographic instruction, also called library use instruction, or user education, has grown over the years from a simple area of interest to a complex area of study
- instruction librarians have begun to examine the complexities of search strategies, the differing information needs of novices and experts, and the organization of knowledge in various fields in order to better serve their patrons
- all these contribute to the emergence of an important role for the librarian, that of the teacher.

These dramatic changes in information technology have made a considerable impact on libraries and their instruction programs. Because of these changes, the library's mission to teach users how to become more effective and efficient, and certainly, more independent in their information seeking,

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has generated new concerns in developing library user education programs that would be more responsive to their needs. Current user education programs have expanded from teaching tools to teaching concepts and from library instruction to information literacy and lifelong learning.

Self Assessment

State whether the following statements are true or false:

7. Developments in computers, microelectronics, and communication technologies have radically changed the library and information environment.
8. Bibliographic instruction, also called library use instruction, or user training.

11.5 Summary

- The various definitions of information literacy focuses on how it has evolved from library user education, and the aims of various information literacy programmes. It emphasize that information literacy is a signal skill for lifelong and flexible learning situations.
- Tremendous increase in the volume of publication as well as the resulting complexity of libraries and the methods by which literature is organized and disseminated necessitate the user education.
- Many instruction librarians have espoused, and continue to espouse, the search strategy approach because it provides a conceptual framework for teaching students research techniques.
- Academic libraries support the teaching and research needs of institutions they serve. It is the libraries' responsibility to ensure that the use of its information sources, resources and services are maximized to benefit its users, hence the necessity for user education programmes.
- Libraries provide a support service to the institutions they serve. It is important to understand the goals of the institution served to enable librarians to come up with a mission statement which should reflect the library's commitment in helping the institution achieve its goals.
- An evaluation of user education literature reveals the importance of user education in academic libraries. It is believed that improving users' knowledge of their libraries' collection and services could be a motivating factor for more usage and more demands on the library.

11.6 Keywords

The Gateway to Information : The Gateway to information is developed by the Ohio State University Library.

User Education : User education helps publicize library services.

11.7 Review Questions

1. Define the term information literacy.
2. Define user education.
3. Brief out the challenges in information services.
4. Mention any one specific components of user education.

Notes

5. What is the purpose of studying user education?
6. Explain the concepts of user education.
7. Write the impacts of library instructions.
8. Write the goals and objectives of user education.
9. Write a short note on Changing Academic Library.
10. Discuss the need for user education.
11. Analyze on "Planning of User Education"
12. Explain the techniques and methods in user education.

Answers: Self Assessment

1.	1970	2.	Dr. S.R. Ranganathan	3.	Ohio State University (OSU)	4.	1991
5.	(a)	6.	(a)	7.	True	8.	False.

11.8 Further Readings

Books

Lancaster, (F.W): *If you want to evaluate your Library*

Prasher, (R.G): *Information and its communication*

Laloo, (Bikika Tariaing): *Information needs, information seeking behaviours and users*, Delhi, Ess Ess, 2002

Jordan, (Peter): *The academic Library and its users,* Gover, 1998.

Online links

http://shodhganga.inflibnet.ac.in/dxml/

www.fh-potsdam.de/~IFLA/INSPEL/94-4pair.pdf

Unit 12: Evaluation of User Educational Programmes

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CONTENTS

Objectives

After studying this unit, you will be able to:

- Explain information literacy—definition and need
- Describe specific aspects of information literacy
- Discuss national forum on information literacy.

Introduction

Several conceptions and definitions of **information literacy** have become prevalent. For example, one conception defines information literacy in terms of a set of competencies that an informed citizen of an information society ought to possess to participate intelligently and actively in that society.

The American Library Association's (ALA) Presidential Committee on Information Literacy, Final Report states, "To be information literate, a person must be able to recognize when information is needed and has the ability to locate, evaluate, and use effectively the needed information." Information Literacy is important to all libraries, library users, and the general public.

Jeremy Shapiro and Shelley Hughes (1996) define information literacy as "A new liberal art that extends from knowing how to use computers and access information to critical reflection on the nature of information itself, its technical infrastructure and its social, cultural, and philosophical context and impact."

Notes

Did u know? Information Literacy is a most important part of education. Sunita, DLIS. It is also a vital part of university-level education.

12.1 Information Literacy—Definition and Need

The phrase information literacy first appeared in print in a 1974 report by Paul G. Zurkowski, written on behalf of the National Commission on Libraries and Information Science. Zurkowski used the phrase to describe the "techniques and skills" known by the information literate "for utilizing the wide range of information tools as well as primary sources in molding information solutions to their problems".

Subsequently a number of efforts were made to better define the concept and its relationship to other skills and forms of literacy. Although other educational goals, including traditional literacy, computer literacy, library skills, and critical thinking skills, were related to information literacy and important foundations for its development, information literacy itself was emerging as a distinct skill set and a necessary key to one's social and economic well-being in an increasingly complex information society.

A seminal event in the development of the concept of information literacy was the establishment of the American Library Association's Presidential Committee on Information Literacy, whose 1989 final report outlined the importance of the concept. The report defined information literacy as the ability "to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information" and highlighted information literacy as a skill essential for lifelong learning and the production of an informed and prosperous citizenry.

The committee outlined six principal recommendations: to "reconsider the ways we have organized information institutionally, structured information access, and defined information's role in our lives at home in the community, and in the work place"; to promote "public awareness of the problems created by information illiteracy"; to develop a national research agenda related to information and its use; to ensure the existence of "a climate conducive to students' becoming information literate"; to include information literacy concerns in teacher education; and to promote public awareness of the relationship between information literacy and the more general goals of "literacy, productivity, and democracy."

The recommendations of the Presidential Committee led to the creation later that year of the National Forum on Information Literacy, a coalition of more than 90 national and international organizations.

In 1998, the American Association of School Librarians and the Association for Educational Communications and Technology published Information Power: Building Partnerships for Learning, which further established specific goals for information literacy education, defining some nine standards in the categories of "information literacy", "independent learning", and "social responsibility".

In 1999, SCONUL, the Society of College, National and University Libraries in the UK, published "The Seven Pillars of Information Literacy" model, to "facilitate further development of ideas amongst practitioners in the field ... stimulate debate about the ideas and about how those ideas might be used by library and other staff in higher education concerned with the development of students' skills." A number of other countries have developed information literacy standards since then.

In 2003, the National Forum on Information Literacy, together with UNESCO and the National Commission on Libraries and Information Science, sponsored an international conference in Prague with representatives from some twenty-three countries to discuss the importance of information

Notes

literacy within a global context. The resulting Prague Declaration described information literacy as a "key to social, cultural and economic development of nations and communities, institutions and individuals in the 21st century" and declared its acquisition as "part of the basic human right of life long learning".

On May 28, 2009, U.S. California Governor Arnold Schwarzenneger signed Executive Order S-06-09 establishing a California ICT Digital Literacy Leadership Council, which, in turn, is directed to establish an ICT Digital Literacy Advisory Committee. "The Leadership Council, in consultation with the Advisory Committee, shall develop an ICT Digital Literacy Policy, to ensure that California residents are digitally literate." The Executive Order states further: " ICT Digital Literacy is defined as using digital technology, communications tools and/or networks to access, manage, integrate, evaluate, create and communicate information in order to function in a knowledge-based economy and society." The Governor directs "...The Leadership Council, in consultation with the Advisory Committee develop a California Action Plan for ICT Digital Literacy (Action Plan)." He also directs "The California Workforce Investment Board (WIB)... [to] develop a technology literacy component for its five-year Strategic State Plan." His Executive Order ends with the following: " I FURTHER REQUEST that the Legislature and Superintendent of Public Instruction consider adopting similar goals, and that they join the Leadership Council in issuing a "Call to Action" to schools, higher education institutions, employers, workforce training agencies, local governments, community organizations, and civic leaders to advance California as a global leader in ICT Digital Literacy".

Information literacy rose to national consciousness in the U.S. with President Barack Obama's Proclamation designating October 2009 as National Information Literacy Awareness Month. President Obama's Proclamation stated that "Rather than merely possessing data, we must also learn the skills necessary to acquire, collate, and evaluate information for any situation. Though we may know how to find the information we need, we must also know how to evaluate it. Over the past decade, we have seen a crisis of authenticity emerge. We now live in a world where anyone can publish an opinion or perspective, whether true or not, and have that opinion amplified within the information marketplace. At the same time, Americans have unprecedented access to the diverse and independent sources of information, as well as institutions such as libraries and universities, that can help separate truth from fiction and signal from noise."

His Proclamation ends with: "NOW, THEREFORE, I, BARACK OBAMA, President of the United States of America, by virtue of the authority vested in me by the Constitution and the laws of the United States, do hereby proclaim October 2009 as National Information Literacy Awareness Month. I call upon the people of the United States to recognize the important role information plays in our daily lives, and appreciate the need for a greater understanding of its impact."

Self Assessment

Fill in the blanks:

1 ..... define information literacy as "A new liberal art that extends from knowing how to use computers and access information to critical reflection on the nature of information.

2. The phrase information literacy first appeared in print in a 1974 report by ..... .

3. In the year ..... SCONUL, the Society of College, National and University Libraries in the UK, published "The Seven Pillars of Information Literacy" model.

4. In 2003, the ..... together with .....and the National Commission on Libraries and Information Science, sponsored an international conference in Prague.

5 ..... proclamation designating October 2009 as National Information Literacy Awareness Month.

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12.2 Specific Aspects of Information Literacy

In "Information Literacy as a Liberal Art", Jeremy J. Shapiro and Shelley K. Hughes advocated a more holistic approach to information literacy education, one that encouraged not merely the addition of information technology courses as an adjunct to existing curricula, but rather a radically new conceptualization of "our entire educational curriculum in terms of information".

Drawing upon Enlightenment ideals like those articulated by Enlightenment philosopher Condorcet, Shapiro and Hughes argued that information literacy education is "essential to the future of democracy, if citizens are to be intelligent shapers of the information society rather than its pawns, and to humanistic culture, if information is to be part of a meaningful existence rather than a routine of production and consumption".

To this end, Shapiro and Hughes outlined a "prototype curriculum" that encompassed the concepts of computer literacy, library skills, and "a broader, critical conception of a more humanistic sort", suggesting seven important components of a holistic approach to information literacy:

- **Tool literacy**, or the ability to understand and use the practical and conceptual tools of current information technology relevant to education and the areas of work and professional life that the individual expects to inhabit.
- **Resource literacy** or the ability to understand the form, format, location and access methods of information resources, especially daily expanding networked information resources.
- **Social-structural literacy** or understanding how information is socially situated and produced.
- **Research literacy** or the ability to understand and use the IT-based tools relevant to the work of today's researcher and scholar.
- **Publishing literacy** or the ability to format and publish research and ideas electronically, in textual and multimedia forms … to introduce them into the electronic public realm and the electronic community of scholars.
- **Emerging technology literacy**, or the ability to continuously adapt to, understand, evaluate and make use of the continually emerging innovations in information technology so as not to be a prisoner of prior tools and resources, and to make intelligent decisions about the adoption of new ones.
- **Critical literacy**, or the ability to evaluate critically the intellectual, human and social strengths and weaknesses, potentials and limits, benefits and costs of information technologies.
- Ira Shor further defines critical literacy as "[habits] of thought, reading, writing, and speaking which go beneath surface meaning, first impressions, dominant myths, official pronouncements, traditional clichés, received wisdom, and mere opinions, to understand the deep meaning, root causes, social context, ideology, and personal consequences of any action, event, object, process, organization, experience, text, subject matter, policy, mass media, or discourse".

Self Assessment

Multiple Choice Questions:

6. Who argued that information literacy education is "essential to the future of democracy?

(a) Shapiro and Hughes (b) Obama

(c) Both (a) and (b) (d) None of these.

Notes

7. Tool literacy or ability to understand is a holistic approach to information literacy is stated by:

(a) Shapiro and Hughes (b) Ira Shor

(c) Barack Obama (d) None of these.

12.3 National Forum on Information Literacy

In 1983, the seminal report "A Nation at Risk: The Imperative for Educational Reform" declared that a "rising tide of mediocrity" was eroding the very foundations of the American educational system. It was, in fact, the genesis of the current educational reform movement within the United States. Ironically, the report did not include in its set of reform recommendations the academic and/or the public library as one of the key architects in the redesign of our K-16 educational system. This report and several others that followed, in conjunction with the rapid emergence of the information society, led the American Library Association (ALA) to convene a blue ribbon panel of national educators and librarians in 1987.

The ALA Presidential Committee on Information Literacy was charged with the following tasks: (1) to define information literacy within the higher literacies and its importance to student performance, lifelong learning, and active citizenship; (2) to design one or more models for information literacy development appropriate to formal and informal learning environments throughout people's lifetimes; and (3) to determine implications for the continuing education and development of teachers. In the release of its Final Report in 1989, the American Library Association Presidential Committee on Information Literacy summarized in its opening paragraphs the ultimate mission of the National Forum on Information Literacy:

"How our country deals with the realities of the Information Age will have enormous impact on our democratic way of life and on our nation's ability to compete internationally. Within America's information society, there also exists the potential of addressing many long-standing social and economic inequities. To reap such benefits, people—as individuals and as a nation—must be information literate. To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information. Producing such a citizenry will require that schools and colleges appreciate and integrate the concept of information literacy into their learning programs and that they play a leadership role in equipping individuals and institutions to take advantage of the opportunities inherent within the information society. Ultimately, information literate people are those who have learned how to learn. They know how to learn because they know how knowledge is organized, how to find information and how to use information in such a way that others can learn from them. They are people prepared for lifelong learning, because they can always find the information needed for any task or decision at hand."

Notes Acknowledging that the major obstacle to people becoming information literate citizens, who are prepared for lifelong learning, "is a lack of public awareness of the problems created by information illiteracy," the report recommended the formation of a coalition of national organizations to promote information literacy."

Thus, in 1989, the A.L.A. Presidential Committee established the National Forum on Information Literacy, a volunteer network of organizations committed to raising public awareness on the importance of information literacy to individuals, to our diverse communities, to our economy, and to engaged citizenship participation.

Notes

The Forum Today

Since 1989, the National Forum on Information Literacy has evolved steadily under the leadership of its first chair, Dr. Patricia Senn Breivik. Today, the Forum represents over 90 national and international organizations, all dedicated to mainstreaming the philosophy of information literacy across national and international landscapes, throughout every educational, domestic, and workplace venue.

Although the initial intent of the Forum was to raise public awareness and support on a national level, over the last several years, the National Forum on Information Literacy has made significant strides internationally in promoting the importance of integrating information literacy concepts and skills throughout all educational, governmental, and workforce development programs. For example, the National Forum co-sponsored with UNESCO and IFLA several "experts meetings", resulting in the Prague Declaration (2003) and the Alexandria Proclamation (2005) each underscoring the importance of information literacy as a basic fundamental human right and lifelong learning skill.

In the United States, however, information literacy skill development has been the exception and not the rule, particularly as it relates to the integration of information literacy practices within our educational and workforce development infrastructures. In a 2000 peer reviewed publication, Nell K. Duke, found that students in first grade classrooms were exposed to an average of 3.6 minutes of informational text in a school day. In October, 2006, the first national Summit on Information Literacy brought together well over 100 representatives from education, business, and government to address America's information literacy deficits as a nation currently competing in a global marketplace. This successful collaboration was sponsored by the National Forum on Information Literacy, Committee for Economic Development, Educational Testing Service, the Institute for a Competitive Workforce, and National Education Association (NEA). The Summit was held at NEA headquarters in Washington, D.C.

A major outcome of the Summit was the establishment of a national ICT literacy policy council to provide leadership in creating national standards for ICT literacy in the United States.

As stated on the Forum's Main Web page, it recognizes that achieving information literacy has been much easier for those with money and other advantages. For those who are poor, non-White, older, disabled, living in rural areas or otherwise disadvantaged, it has been much harder to overcome the digital divide. A number of the Forum's members address the specific challenges for those disadvantaged. For example, The Children's Partnership advocates for the nearly 70 million children and youth in the country, many of whom are disadvantaged. The Children's Partnership currently runs three programs, two of which specifically address the needs of those with low-incomes: Online content for Low-Income and Underserved Americans Initiative, and the California Initiative Program. Another example is the National Hispanic Council on Aging which is:

Dedicated to improving the quality of life for Latino elderly, families, and communities through advocacy, capacity and institution building, development of educational materials, technical assistance, demonstration projects, policy analysis and research (National Hispanic Council on Aging, and, Mission Statement section).

In the final analysis, the National Forum on Information Literacy will continue to work closely with educational, business, and non-profit organizations in the U.S. to promote information literacy skill development at every opportunity, particularly in light of the ever growing social, economic, and political urgency of globalization, prompting us to re-energize our promotional and collaborative efforts here at home.

Notes

12.4 Bibliography

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Educational schemata

One view of the components of information literacy

Based on the Big6 by Mike Eisenberg and Bob Berkowitz.

http://big6.com/

1. The first step in the Information Literacy strategy is to clarify and understand the requirements of the problem or task for which information is sought.

Basic questions asked at this stage:

(i) What is known about the topic?

(ii) What information is needed?

(iii) Where can the information be found?

2. **Locating:** The second step is to identify sources of information and to find those resources. Depending upon the task, sources that will be helpful may vary. Sources may include books, encyclopedias, maps, almanacs, etc. Sources may be in electronic, print, social bookmarking tools, or other formats.
3. **Selecting/analyzing:** Step three involves examining the resources that were found. The information must be determined to be useful or not useful in solving the problem. The useful resources are selected and the inappropriate resources are rejected.
4. **Organizing/synthesizing:** It is in the fourth step this information which has been selected is organized and processed so that knowledge and solutions are developed.

   Examples of basic steps in this stage are:

   (i) Discriminating between fact and opinion

   (ii) Basing comparisons on similar characteristics

   (iii) Noticing various interpretations of data

   (iv) Finding more information if needed

   (v) Organizing ideas and information logically.

Notes

5. **Creating/presenting:** In step five the information or solution is presented to the appropriate audience in an appropriate format. A paper is written. A presentation is made. Drawings, illustrations, and graphs are presented.
6. **Evaluating:** The final step in the Information Literacy strategy involves the critical evaluation of the completion of the task or the new understanding of the concept. Was the problem solved? Was new knowledge found? What could have been done differently? What was done well?

The Big 6 skills have been used in a variety of settings to help those with a variety of needs. For example, the library of Dubai Women's College, in Dubai, United Arab Emirates which is an English as a second language institution, uses the Big6 model for its information literacy workshops. According to Story-Huffman (2009), using Big6 at the college "has transcended cultural and physical boundaries to provide a knowledge base to help students become information literate" (para. 8). In primary grades, Big6 has been found to work well with variety of cognitive and language levels found in the classroom.

Differentiated instruction and the Big6 appear to be made for each other. While it seems as though all children will be on the same Big6 step at the same time during a unit of instruction, there is no reason students cannot work through steps at an individual pace. In addition, the Big 6 process allows for seamless differentiation by interest.

A number of weaknesses in the Big6 approach have been highlighted by Philip Doty:

This approach is problem-based, is designed to fit into the context of Benjamin Bloom's taxonomy of cognitive objectives, and aims toward the development of critical thinking. While the Big6 approach has a great deal of power, it also has serious weaknesses. Chief among these are the fact that users often lack well-formed statements of information needs, as well as the model's reliance on problem-solving rhetoric. Often, the need for information and its use are situated in circumstances that are not as well-defined, discrete, and monolithic as problems (Doty, 2003).

Eisenberg (2004) has recognized that there are a number of challenges to effectively applying the Big 6 skills, not the least of which is information overload which can overwhelm students. Part of Eisenberg's solution is for schools to help students become discriminating users of information.

Another conception of information literacy

This conception, used primarily in the library and information studies field, and rooted in the concepts of library instruction and bibliographic instruction, is the ability "to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information" (Presidential Committee on Information Literacy, 1989, p. 1). In this view, information literacy is the basis for life-long learning.

In the publication Information power: Building partnerships for learning (AASL and AECT, 1998), three categories, nine standards, and twenty-nine indicators are used to describe the information literate student. The categories and their standards are as follows:

Category 1: Information Literacy

Standards:

1. The student who is information literate accesses information efficiently and effectively.
2. The student who is information literate evaluates information critically and competently.
3. The student who is information literate uses information accurately and creatively.

Notes

Category 2: Independent Learning

Standards:

1. The student who is an independent learner is information literate and pursues information related to personal interests.
2. The student who is an independent learner is information literate and appreciates literature and other creative expressions of information.
3. The student who is an independent learner is information literate and strives for excellence in information seeking and knowledge generation.

Category 3: Social Responsibility

Standards:

1. The student who contributes positively to the learning community and to society is information literate and recognizes the importance of information to a democratic society.
2. The student who contributes positively to the learning community and to society is information literate and practices ethical behavior in regard to information and information technology.
3. The student who contributes positively to the learning community and to society is information literate and participates effectively in groups to pursue and generate information. (AASL and AECT, 1998).

Since information may be presented in a number of formats, the term "information" applies to more than just the printed word. Other literacies such as visual, media, computer, network, and basic literacies are implicit in information literacy.

Many of those who are in most need of information literacy are often amongst those least able to access the information they require:

Minority and at-risk students, illiterate adults, people with English as a second language, and economically disadvantaged people are among those most likely to lack access to the information that can improve their situations. Most are not even aware of the potential help that is available to them (Presidential Committee on Information Literacy, 1989, para. 7) .

As the Presidential Committee report points out, members of these disadvantaged groups are often unaware that libraries can provide them with the access, training and information they need. In Osborne (2004) many libraries around the country are finding numerous ways to reach many of these disadvantaged groups by discovering their needs in their own environments (including prisons) and offering them specific services in the libraries themselves.

Self Assessment

State whether the following statements are true or false:

8. In 1983, the seminal report "A Nation at Risk: The Imperative for Educational Reform" declared that a "rising tide of mediocrity" was eroding the very foundations of the American educational system.
9. 1979, the A.L.A. Presidential Committee established the National Forum on Information Literacy.
10. The first step in the Information Literacy strategy is to clarify and understand the requirements of the problem or task for which information is sought.

Notes

12.5 Summary

- A seminal event in the development of the concept of information literacy was the establishment of the American Library Association's Presidential Committee on Information Literacy, whose 1989 final report outlined the importance of the concept. The report defined information literacy as the ability "to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information" and highlighted information literacy as a skill essential for lifelong learning and the production of an informed and prosperous citizenry.
- In "Information Literacy as a Liberal Art", Jeremy J. Shapiro and Shelley K. Hughes advocated a more holistic approach to information literacy education, one that encouraged not merely the addition of information technology courses as an adjunct to existing curricula, but rather a radically new conceptualization of "our entire educational curriculum in terms of information".

12.6 Keywords

Information Literacy : First appeared in print in a 1974 report by Paul G. Zurkowski.

Resource Literacy : Understand the form, format, location and access methods of information resources about literacy.

12.7 Review Questions

1. What does the ALA states?
2. Define resource literacy.
3. What is emerging technology literacy?
4. What is the use information literacy strategy?
5. Explain the specific aspects of information literacy.
6. Write the tasks of the ALA Presidential Committee on Information Literacy.
7. Explain the educational schemata.
8. Explain the various conception of information literacy.
9. Elaborately discuss on Information literacy with its needs.
10. Discuss on National Forum on information literacy.

Answers: Self Assessment

1. Jeremy Shapiro and Shelley Hughes
2. Paul G. Zurkowski
3. 1999
4. National Forum on Information Literacy, UNESCO
5. Barack Obama's
6. (a)
7. (a)
8. True
9. False
10. True.

12.8 Further Readings

Notes

Books

Lancaster, (F.W): *If you want to evaluate your Library*

Prasher, (R.G): *Information and its communication*

Laloo, (Bikika Tariaing): *Information needs, information seeking behaviours and users,* Delhi, Ess Ess, 2002.

Jordan, (Peter): *The academic Library and its users,* Gover, 1998.

Online links

http://www.cenlib.iitm.ac.in/docs/library/index.php?page=infolit

http://infolit.org/about-the-national-forum/

http://www.businessdictionary.com/definition/bibliography.html

Notes

Unit 13: Purpose and Programmes of Education

CONTENTS

Objectives

After studying this unit, you will be able to:

- Describe the purpose of education
- Explain the programmes of education
- Discuss the education in USA
- Realise the improvements in different stages and types of education.

Introduction

The change from an economy based on labor and capital one based on information requires information literate workers who will know how to interpret information.

Notes

Barner's (1996) study of the new workplace indicates significant changes will take place in the future:

- The work force will become more decentralized
- The work force will become more diverse
- The economy will become more global
- The use of temporary workers will increase.

These changes will require that workers possess information literacy skills. The SCANS (1991) report identifies the skills necessary for the workplace of the future. Rather than report to a hierarchical management structure, workers of the future will be required to actively participate in the management of the company and contribute to its success.

Notes To survive in this information society, workers will need to possess skills beyond those of reading, writing and arithmetic.

13.1 Effect on Education

The rapidly evolving information landscape means that education methods and practices must evolve and adapt accordingly. Information literacy must become a key focus of educational institutions at all levels. This requires a commitment to lifelong learning and an ability to seek out and identify innovations that will be needed to keep pace with or outpace changes. Educational methods and practices, within our increasingly information-centric society, must facilitate and enhance a student's ability to harness the power of information. Key to harnessing the power of information is the ability to evaluate information, to ascertain among other things its relevance, authenticity and modernity. The information evaluation process is crucial life skill and a basis for lifelong learning. Evaluation consists of several component processes including metacognition, goals, personal disposition, cognitive development, deliberation, and decision-making. This is both a difficult and complex challenge and underscores the importance of being able to think critically.

Critical thinking is an important educational outcome for students. Education institutions have experimented with several strategies to help foster critical thinking, as a means to enhance information evaluation and information literacy among students. When evaluating evidence, students should be encouraged to practice formal argumentation. Debates and formal presentations must also be encouraged to analyze and critically evaluate information.

Education professionals must underscore the importance of high information quality. Students must be trained to distinguish between fact and opinion. They must be encouraged to use cue words such as "I think" and "I feel" to help distinguish between factual information and opinions. Information related skills that are complex or difficult to comprehend must be broken down into smaller parts. Another approach would be to train students in familiar contexts. Education professionals should encourage students to examine "causes" of behaviors, actions and events. Research shows that people evaluate more effectively if causes are revealed, where available. Such initiatives would aid educators help people become more Information Literate. As a society, we must critically evaluate information to establish a public demand for high information quality.

Because information literacy skills are vital to future success:

- Information literacy skills must be taught in the context of the overall process.
- Instruction in information literacy skills must be integrated into the curriculum and reinforced both within and outside of the educational setting.

Notes

Self Assessment

Fill in the blanks:

1.....(1996) study of the new workplace indicates significant changes will take place in the future.

2. .....is an important educational outcome for students.

13.2 Education in the USA

13.2.1 Standards

National content standards, state standards, and information literacy skills terminology may vary, but all have common components relating to information literacy.

Information literacy skills are critical to several of the National Education Goals outlined in the Goals 2000: Educate America Act, particularly in the act's aims to increase "school readiness", "student achievement and citizenship", and "adult literacy and lifelong learning". Of specific relevance are the "focus on lifelong learning, the ability to think critically, and on the use of new and existing information for problem solving", all of which are important components of information literacy.

In 1998, the American Association of School Librarians and the Association for Educational Communications and Technology published "Information Literacy Standards for Student Learning", which identified nine standards that librarians and teachers in K-12 schools could use to describe information literate students and define the relationship of information literacy to independent learning and social responsibility:

- ***Standard One:*** The student who is information literate accesses information efficiently and effectively.
- ***Standard Two:*** The student who is information literate evaluates information critically and competently.
- ***Standard Three:*** The student who is information literate uses information accurately and creatively.
- ***Standard Four:*** The student who is an independent learner is information literate and pursues information related to personal interests.
- ***Standard Five:*** The student who is an independent learner is information literate and appreciates literature and other creative expressions of information.
- ***Standard Six:*** The student who is an independent learner is information literate and strives for excellence in information seeking and knowledge generation.
- ***Standard Seven:*** The student who contributes positively to the learning community and to society is information literate and recognizes the importance of information to a democratic society.
- ***Standard Eight:*** The student who contributes positively to the learning community and to society is information literate and practices ethical behavior in regard to information and information technology.
- ***Standard Nine:*** The student who contributes positively to the learning community and to society is information literate and participates effectively in groups to pursue and generate information.

In 2007 AASL expanded and restructured the standards that school librarians should strive for in their teaching. These were published as "Standards for the 21st Century Learner" and address several

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literacies: information, technology, visual, textual, and digital. These aspects of literacy were organized within four key goals: that "learners use of skills, resources, & tools" to "inquire, think critically, and gain knowledge"; to "draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge"; to "share knowledge and participate ethically and productively as members of our democratic society"; and to "pursue personal and aesthetic growth".

In 2000, the Association of College and Research Libraries (ACRL), a division of the American Library Association (ALA), released "Information Literacy Competency Standards for Higher Education", describing five standards and numerous performance indicators considered best practices for the implementation and assessment of postsecondary information literacy programs. The five standards are:

- **Standard One:** The information literate student determines the nature and extent of the information needed.
- **Standard Two:** The information literate student accesses needed information effectively and efficiently.
- **Standard Three:** The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.
- **Standard Four:** The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose.
- **Standard Five:** The information literate student understands many of the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally.

These standards are meant to span from the simple to more complicated, or in terms of Bloom's Taxonomy of Educational Objectives, from the "lower order" to the "higher order". Lower order skills would involve for instance being able to use an online catalog to find a book relevant to an information need in an academic library. Higher order skills would involve critically evaluating and synthesizing information from multiple sources into a coherent interpretation or argument.

Self Assessment

Multiple Choice Questions:

3. The American Association of School Librarians and the Association for Educational Communications and Technology published "Information Literacy Standards for Student Learning" in the year:

   (a) 1998 (b) 1999

   (c) 1997 (d) 2000.

4. AASL expanded and restructured the standards that school librarians should strive for in their teaching in the year:

   (a) 1998 (b) 2007

   (c) 2006 (d) 2001.

5. The Association of College and Research Libraries (ACRL), a division of the American Library Association (ALA), released "Information Literacy Competency Standards for Higher Education" in the year:

   (a) 2001 (b) 2007

   (c) 2000 (d) None of these.

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13.2.2 K-12 Education Restructuring

Educational reform and restructuring make information literacy skills a necessity as students seek to construct their own knowledge and create their own understandings. Today instruction methods have changed drastically from the mostly one-directional teacher-student model, to a more collaborative approach where the students themselves feel empowered. Much of this challenge is now being informed by the American Association of School Librarians that published new standards for student learning in 2007.

Within the K-12 environment, effective curriculum development is vital to imparting Information Literacy skills to students. Given the already heavy load on students, efforts must be made to avoid curriculum overload. Eisenberg strongly recommends adopting a collaborative approach to curriculum development among classroom teachers, librarians, technology teachers, and other educators. Staff must be encouraged to work together to analyze student curriculum needs, develop a broad instruction plan, set information literacy goals, and design specific unit and lesson plans that integrate the information skills and classroom content. These educators can also collaborate on teaching and assessment duties.

Educators are selecting various forms of resource-based learning (authentic learning, problem-based learning and work-based learning) to help students focus on the process and to help students learn from the content. Information literacy skills are necessary components of each. Within a school setting, it is very important that a students' specific needs as well as the situational context be kept in mind when selecting topics for integrated information literacy skills instruction. The primary goal should be to provide frequent opportunities for students to learn and practice information problem solving. To this extent, it is also vital to facilitate repetition of information seeking actions and behavior. The importance of repetition in information literacy lesson plans cannot be underscored, since we tend to learn through repetition. A students' proficiency will improve over time if they are afforded regular opportunities to learn and to apply the skills they have learnt.

Did u know? The process approach to education is requiring new forms of student assessment. Students demonstrate their skills, assess their own learning, and evaluate the processes by which this learning has been achieved by preparing portfolios, learning and research logs, and using rubrics.

13.2.3 Efforts in K-12 Education

Information literacy efforts are underway on individual, local, and regional bases.

Many states have either fully adopted AASL information literacy standards or have adapted them to suit their needs. States such as Oregon (OSLIS, 2009) increasing rely on these guidelines for curriculum development and setting information literacy goals. Virginia, on the other hand, chose to undertake a comprehensive review, involving all relevant stakeholders and formulate it own guidelines and standards for information literacy. At an international level, two framework documents jointly produced by UNESCO and the IFLA (International Federation of Library Associations and Institutions) developed two framework documents that laid the foundations in helping define the educational role to be played by school libraries: the School library manifesto (1999).

Another immensely popular approach to imparting information literacy is the Big 6 set of skills. Eisenberg claims that the Big 6 is the most widely used model in K-12 education. This set of skills seeks to articulate the entire information seeking life cycle. The Big 6 is made up of six major stages and two sub-stages under each major stages. It defines the six steps as being: task definition,

Notes

information seeking strategies, location and access, use of information, synthesis, and evaluation. Such approaches seek to cover the full range of information problem-solving actions that a person would normally undertake, when faced with an information problem or with making a decision based on available resources.

Imaginative Web based information literacy tutorials such as TILT are being created and integrated with curriculum areas, or being used for staff development purposes." Library media programs" are fostering information literacy by integrating the presentation of information literacy skills with curriculum at all grade levels.

Caution But information literacy efforts are not being limited to the library field, but are also being employed by regional educational consortia.

13.2.4 Efforts in Higher Education

Information literacy instruction in higher education can take a variety of forms: stand-alone courses or classes, online tutorials, workbooks, course-related instruction, or course-integrated instruction. One attempt in the area of physics was published in 2009.

State-wide university systems and individual colleges and universities are undertaking strategic planning to determine information competencies, to incorporate instruction in information competence throughout the curriculum and to add information competence as a graduation requirement for students. The six regional accreditation boards have added information literacy to their standards, Librarians often are required to teach the concepts of information literacy during "one shot" classroom lectures. There are also credit courses offered by academic librarians to prepare college students to become information literate.

Notes Academic library programs are preparing faculty to facilitate their students' mastery of information literacy skills so that the faculty can in turn provide information literacy learning experiences for the students enrolled in their classes.

13.2.5 Technology

Information Technology is the great enabler. It provides, for those who have access to it, an extension of their powers of perception, comprehension, analysis, thought, concentration, and articulation through a range of activities that include: writing, visual images, mathematics, music, physical movement, sensing the environment, simulation, and communication.

Technology, in all of its various forms, offers users the tools to access, manipulate, transform, evaluate, use, and present information.

Technology in schools includes computers, televisions, video cameras, video editing equipment, and TV studios.

Two approaches to technology in K-12 schools are technology as the object of instruction approach, and technology as the tool of instruction approach.

Schools are starting to incorporate technology skills instruction in the context of information literacy skills. This is **called technology information literacy.**

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Technology is changing the way higher education institutions are offering instruction. The use of the Internet is being taught in the contexts of subject area curricula and the overall information literacy process.

There is some empirical indication that students who use technology as a tool may become better at managing information, communicating, and presenting ideas.

13.2.6 Distance Education

Now that information literacy has become a part of the core curriculum at many post-secondary institutions, it is incumbent upon the library community to be able to provide information literacy instruction in a variety of formats, including online learning and distance education. The Association of College and Research Libraries (ACRL) addresses this need in its Guidelines for Distance Education Services (2000):

"Library resources and services in institutions of higher education must meet the needs of all their faculty, students, and academic support staff, wherever these individuals are located, whether on a main campus, off campus, in distance education or extended campus programs—or in the absence of a campus at all, in courses taken for credit or non-credit; in continuing education programs; in courses attended in person or by means of electronic transmission; or any other means of distance education."

Within the e-learning and distance education worlds, providing effective information literacy programs brings together the challenges of both distance librarianship and instruction. With the prevalence of course management systems such as WebCT and Blackboard, library staff are embedding information literacy training within academic programs and within individual classes themselves (Presti, 2002).

13.2.7 Global Information Literacy

The International Federation of Library Associations and Institutions (IFLA) has established an Information Literacy Section. The Section has, in turn, developed and mounted an Information Literacy Resources Directory, called InfoLit Global. Librarians, educators and information professionals may self-register and upload information-literacy-related materials (IFLA, Information Literacy Section, n.d.) According to the IFLA website, "The primary purpose of the Information Literacy Section is to foster international co-operation in the development of information literacy education in all types of libraries and information institutions." http://www.ifla.org/en/about-information-literacy.

Self Assessment

State whether the following statements are true or false:

6. American Association of School Librarians that published new standards for student learning in 2007.
7. IFLA claims that the Big6 is the most widely used model in K-12 education.
8. The Association of College and Research Libraries (ACRL) addresses this need in its Guidelines for Distance Education Services (2000).
9. The International Federation of Library Associations and Institutions (IFLA) has established an Information Literacy Section.

Notes

13.3 Summary

- The change from an economy based on labor and capital one based on information requires information literate workers who will know how to interpret information.
- The rapidly evolving information landscape means that education methods and practices must evolve and adapt accordingly. Information literacy must become a key focus of educational institutions at all levels. This requires a commitment to lifelong learning and an ability to seek out and identify innovations that will be needed to keep pace with or outpace changes.
- Critical thinking is an important educational outcome for students. Education institutions have experimented with several strategies to help foster critical thinking, as a means to enhance information evaluation and information literacy among students.
- Education professionals must underscore the importance of high information quality. Students must be trained to distinguish between fact and opinion. They must be encouraged to use cue words such as "I think" and "I feel" to help distinguish between factual information and opinions.
- National content standards, state standards, and information literacy skills terminology may vary, but all have common components relating to information literacy.
- Educational reform and restructuring make information literacy skills a necessity as students seek to construct their own knowledge and create their own understandings.
- Information Technology is the great enabler. It provides, for those who have access to it, an extension of their powers of perception, comprehension, analysis, thought, concentration, and articulation through a range of activities that include: writing, visual images, mathematics, music, physical movement, sensing the environment, simulation, and communication.

13.4 Keywords

Critical Thinking : Critical thinking is an important educational outcome for students.

Information Literacy Skills : Information Literacy Skills are vital to future success.

13.5 Review Questions

1. Write a short note on evolution of economy.
2. What are the efforts on education?
3. Briefly explain the education in USA.
4. What are the efforts in K-12 education?
5. What are the efforts in higher education?
6. Describe technology.
7. Write a short note on
   (a) Distance Education
   (b) Global Information Literacy.

Answers: Self Assessment

1. Barner's	2. Critical thinking	3. (a)
4. (b)	5. (c)	6. True
7. False	8. True	9. True.

Notes

13.6 Further Readings

Books

Lancaster, (F.W): *If you want to evaluate your Library*

Prasher, (R.G): *Information and its communication*

Laloo, (Bikika Tariaing): *Information needs, information seeking behaviours and users*, Delhi, Ess Ess, 2002.

Jordan, (Peter): *The academic Library and its users,* Gover, 1998.

Online links

http://studyplaces.com/articles/153449-education-in-the-usa

http://www.ifc.org/ifcext/

Unit 14: Public Relation and Marketing

Notes

CONTENTS

Objectives

After studying this unit, you will be able to:

- Discuss public relations
- Explain targeting publics
- Define need of Public Relations
- Elaborate advantages of Public Relations
- Define disadvantages of Public Relations
- Explain objective and methods of marketing.

Introduction

Public relations, abbreviated as **PR**, primarily concerns enhancing and maintaining the image for businesses, non-profit organizations, events or high-profile people, such as celebrities and politicians. An earlier definition of public relations, by The first World Assembly of Public Relations Associations, held in Mexico City, in August 1978, was "the art and social science of analyzing trends, predicting

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their consequences, counseling organizational leaders, and implementing planned programs of action, which will serve both the organization and the public interest."

Others define it as the practice of managing communication between an organization and its publics. Public relations provides an organization or individual exposure to their audiences using topics of public interest and news items that provide a third-party endorsement and do not direct payment. Common activities include speaking at conferences, working with the media, crisis communications, social media engagement, and employee communication.

The European view of public relations notes that besides a relational form of interactivity there is also a reflective paradigm that is concerned with publics and the public sphere; not only with relational, which can in principle be private, but also with public consequences of organizational behaviour. A much broader view of interactive communication using the Internet, as outlined by Phillips and Young in Online Public Relations Second Edition (2009), describes the form and nature of Internet-mediated public relations. It encompasses social media and other channels for communication and many platforms for communication such as personal computers (PCs), mobile phones and video game consoles with Internet access. The increasing use of the mentioned technologies give the media a democratization power and thus, aid to the demystification of subjects.

Public relations are used to build rapport with employees, customers, investors, voters, or the general public. Almost any organization that has a stake in how it is portrayed in the public arena employs some level of public relations.

Notes There are a number of public relations disciplines falling under the banner of corporate communications, such as analyst relations, media relations, investor relations, internal communications and labor relations. Most of them include the aspect of peer review to get liability.

14.1 Public Relations

Say **PR**, as in **public relations,** particularly during a conversation about marketing and/or social media, and participants are liable to have vastly different perspectives on the topic.

Did u know? Traditionally, public relations referred to the art of getting mentions of a person, company or other organization placed in the media, namely print, radio and television.

The practice of public relations is spread widely. On the professional level, there is an organization called Public Relations Society of America (PRSA), the world's largest public relations organization. PRSA is a community of more than 21,000 professionals that works to advance the skill set of public relations. PRSA also fosters a national student organization called Public Relations Student Society of America (PRSSA).

The Public Relations Society of America (PRSA) says "public relations is concerned with or devoted to creating mutual understanding among groups and institutions." The PRSA recognises the place of groups and institutions in the public relations process. It admits that these entities have interests that must be protected. It also presupposes a streamlining of these benefits for mutual good. The concept of mutuality in this definition makes you as a public relations man or woman an intermediary between your organisation and its publics. This implies that you should be able to align the interests of these two parties for their mutual advantage. You do this by convincing your organisation that

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public relations attempts to put the broad interest of the public first before the special interest of the organisation. By doing this, the organisation is indirectly serving its own interest; hence PR has what is called "enlightened self interest".

In the USA, public relations professionals earn an average annual salary of $49,800 which compares with £40,000 for a practitioner with a similar job in the UK . Top earners bring home around $89,220 annually, while entry-level public relations specialists earn around $28,080. Corporate or in-house communications is generally more profitable, and communications executives can earn salaries in the mid six-figures, though this only applies to a fraction of the sector's workforce.

Notes The role of public relations professionals is changing because of the shift from traditional to online media. Many PR professionals are finding it necessary to learn new skills and to examine how social media can impact a brand's reputation.

Methods, Tools and Tactics

Public relations and publicity are not synonymous, but many public relations campaigns include provisions for publicity. Publicity is the spreading of information to gain public awareness for a product, person, service, cause or organization, and can be seen as a result of effective public relations planning. More recently in public relations, professionals are using technology as their main tool to get their messages to target audiences. With the creation of social networks, blogs, and even Internet radio public relations professionals are able to send direct messages through these mediums that attract the target audiences. Methods used to find out what is appealing to target audiences include the use of surveys, conducting research or even focus groups. Tactics are the ways to attract target audiences by using the information gathered about that audience and directing a message to them using tools such as social mediums or other technology. Another emerging theme is the application of psychological theories of impression management.

Tools

There are various tools that can be used in the practice of public relations. Traditional tools include press releases and media kits which are sent out to generate positive press on behalf of the organization. Other widely used tools include brochures, newsletters and annual reports. Increasingly, companies are utilizing interactive social media outlets, such as

- Blogs
- Social media (Twitter, Facebook, LinkedIn, foursquare (social network), etc.) as tools in their public relations campaigns. Unlike the traditional tools which allowed for only one-way communication, social media outlets allow the organization to engage in two-way communication, and receive immediate feedback from their various stakeholders and public. Furthermore, companies can join discussions with multiple user identities to create a positive image of the company (*e.g.*, quantity of positive statements from different users). PR tools have changed so much that some are even suggesting the traditional press release may be dead. The company PR tools have to operate in networks, where their clients are.

One of the most popular and traditional tools used by public relations professionals is a press kit, also known as a media kit. A press kit is usually a folder that consists of promotional materials that give information about an event, organization, business, or even a person. What are included would be backgrounders or biographies, fact sheets, press releases (or media releases), media alerts,

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brochures, newsletters, photographs with captions, copies of any media clips, and social mediums. With the way that the industry has changed, many organizations may have a website with a link, "Press Room" which would have online versions of these documents.

The art of public relations is more than simply press kits and social media. 'PR' is synonymous in many people's minds with "Press Release", but the tools of the PR industry are actually many and varied as well as sophisticated and subtle. They include media relations kits containing video and audio news releases, referred to in the industry as VNRs and ANRs, which are often carefully produced to emulate the signature style of a particular network news or current affairs program. These products are then delivered to networks and run as regular program content, with or without source acknowledgment, thereby saving the network tens of thousands of dollars in production costs and delivering for the client of the PR firm an extremely effective and subtle method of managing public opinion. Crisis and issues management campaigns often utilize VNRs and ANRs in their efforts to manage information pertaining to threats to client reputation or profit. Astroturfing, or creating front groups designed to appear as genuine grass roots movements, has proven to be a very effective method of opinion management because people are less suspicious and critical of "ordinary people voices their concerns" than they are of representatives of corporations or governments. Buzz generation, or buzz marketing is another powerful and subversive form of PR in which people are paid to create a "buzz" amongst their peers by exposing them to products or opinions in a manner that appears not to be deliberate marketing or opinion management. Most PR campaigns use many or all of these "communication" techniques and a great many more in creative ways that deliver practical results in marketing or public opinion management.

Self Assessment

Fill in the blanks:

1.....says "public relations is concerned with or devoted to creating mutual understanding among groups and institutions.

2. A press kit, also known as ..... .

14.2 Targeting Publics

A fundamental technique used in public relations is to identify the target audience, and to tailor every message to appeal to that audience. It can be a general, nationwide or worldwide audience, but it is more often a segment of a population. A good elevator pitch can help tailor messaging to each target audience. Marketers often refer to socio-economically driven "demographics", such as "black males 18-49". However, in public relations an audience is more fluid, being whoever someone wants to reach. Or, in the new paradigm of value based networked social groups, the values based social segment could be a trending audience. For example, recent political audiences seduce such buzzword monikers as "soccer moms" and "NASCAR dads."

An alternative and less flexible, more simplistic, approach uses stakeholders theory to identify people who have a stake in a given institution or issue. All audiences are stakeholders (or presumptive stakeholders), but not all stakeholders are audiences. For example, if a charity commissions a public relations agency to create an advertising campaign to raise money to find a cure for a disease, the charity and the people with the disease are stakeholders, but the audience is anyone who is likely to donate money.

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Did u know? Sometimes the interests of differing audiences and stakeholders common to a public relations effort necessitate the creation of several distinct but complementary messages. This is not always easy to do, and sometimes, especially in politics, a spokesperson or client says something to one audience that creates dissonance with another audience or group of stakeholders.

Lobby Groups

Lobby groups are established to influence government policy, corporate policy, or public opinion. An example of this is the American Israel Public Affairs Committee (AIPAC), which influences American foreign policy. Such groups claim to represent a particular interest and in fact are dedicated to doing so. When a lobby group hides its true purpose and support base, it is known as a front group. Moreover, governments may also lobby public relations firms in order to sway public opinion. A well illustrated example of this is the way civil war in Yugoslavia was portrayed. Governments of the newly seceded republics of Croatia and Bosnia, as well as Serbia invested heavily with UK and American public relations firms, so that they would give them a positive image in the USA.

Spin

In public relations, spin is sometimes a pejorative term signifying a heavily biased portrayal in specific favor of an event or situation. While traditional public relations may also rely on creative presentation of the facts, spin often, though not always, implies disingenuous, deceptive and/or highly manipulative tactics. Politicians are often accused of spin by commentators and political opponents when they produce a counterargument or position.

The techniques of spin include selectively presenting facts and quotes that support ideal positions (cherry picking), the so-called "non-denial denial", phrasing that in a way presumes unproven truths, euphemisms for drawing attention away from items considered distasteful, and ambiguity in public statements. Another spin technique involves careful choice of timing in the release of certain news so it can take advantage of prominent events in the news. A famous reference to this practice occurred when British Government press officer Jo Moore used the phrase "It's now a very good day to get out anything we want to bury", (widely paraphrased or misquoted as "It's a good day to bury bad news"), in an e-mail sent on the day of the September 11, 2001 attacks. The furor caused when this e-mail was reported in the press eventually caused her to resign.

Skilled practitioners of spin are sometimes called "spin doctors", despite the negative connotation associated with the term. Perhaps the best-known person in the UK often described as a "spin doctor" is Alastair Campbell, who was involved with Tony Blair's public relations between 1994 and 2003, and also played a controversial role as press relations officer to the British and Irish Lions rugby union side during their 2005 tour of New Zealand.

State-run media in many countries also engage in spin by selectively allowing news stories that are favorable to the government while censoring anything that could be considered critical. They may also use propaganda to indoctrinate or actively influence citizens' opinions. Privately run media may also use the same techniques of "issue" versus "non-issue" to spin its particular political viewpoints.

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Negative PR

Negative public relations, also called dark public relations (DPR), is a process of destroying the target's reputation and corporate identity. In other words, instead of concentrating efforts in the maintenance and the creation of a positive reputation or image of your clients, the objective is to discredit someone else, usually a business rival. Unlike the regular services in public relations, those in BPR rely on the development of industries such as IT security, industrial espionage, social engineering and competitive intelligence. A common technique is finding all of the dirty secrets of their target and turning them against their very own holder.

The building of a dark PR campaign, also known as a dirty tricks or a smear campaign is a long and a complex operation.

Notes Traditionally it starts with an extensive information gathering and follows the other needs of a precise competitive research. The gathered information is being used after that as a part of a greater strategically planning, aiming to destroy the relationship between the company and its stakeholders.

14.3 Need of Public Relations

Public relations involve the cultivation of favorable relations for organizations and products with its key publics through the use of a variety of communications channels and tools. Traditionally, this meant public relations professionals would work with members of the news media to build a favorable image by publicizing the organization or product through stories in print and broadcast media. But today the role of public relations is much broader and includes:

- building awareness and a favorable image for a company or client within stories and articles found in relevant media outlets
- closely monitoring numerous media channels for public comment about a company and its products
- managing crises that threaten company or product image
- building goodwill among an organization's target market through community, philanthropic and special programs and events.

In this tutorial most of our focus is on how public relations supports marketing by building product and company image (sometimes referred to as publicity). Yet, it should be noted that there are other stakeholders companies reached via the public relations function, such as employees and non-target market groups. Favorable media coverage about a company or product often reaches these audiences as well and may offer potential benefit to the marketer.

Finally, in most large companies, investor relations (IR) or financial public relations is a specialty in itself guided by specific disclosure regulations. However, coverage of this type of PR will not be provided here.

14.3.1 Advantages of Public Relations

Public relations offers several advantages not found with other promotional options. First, PR is often considered a highly credible form of promotion. One of PR's key points of power rests with helping to establish credibility for a product, company or person (*e.g.*, CEO) in the minds of targeted customer groups by capitalizing on the influence of a third-party — the media. Audiences view

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many media outlets as independent-party sources that are unbiased in their coverage, meaning that the decision to include the name of the company and the views expressed about the company is not based on payment (*i.e.*, advertisement) but on the media outlet's judgment of what is important. For example, a positive story about a new product in the business section of a local newspaper may have greater impact on readers than a full-page advertisement for the product since readers perceive the news media as presenting an impartial perspective of the product.

Second, a well-structured PR campaign can result in the target market being exposed to more detailed information than they receive with other forms of promotion. That is, media sources often provide more space and time for explanation of a product.

Third, depending on the media outlet, a story mentioning a company may be picked up by a large number of additional media, thus, spreading a single story to many locations.

Finally, in many cases public relations objectives can be achieved at very low cost when compared to other promotional efforts. This is not to suggest public relations is not costly, it may be, especially when a marketer hires PR professionals to handle the work. But when compared to the direct cost of other promotions, in particular advertising, the return on promotional expense can be quite high.

14.3.2 Disadvantages of Public Relations

While public relations hold many advantages for marketers, there are also concerns when using this promotional technique. First, while public relations uses many of the same channels as advertising, such as newspapers, magazines, radio, TV and Internet, it differs significantly from advertising in that marketers do not have direct control over whether a message is delivered and where it is placed for delivery. For instance, a marketer may spend many hours talking with a magazine writer, who is preparing an industry story, only to find that their company is never mentioned in the article.

Second, while other promotional messages are carefully crafted and distributed as written through a pre-determined placement in a media vehicle, public relations generally conveys information to a member of the news media (*e.g.*, reporter) who then recrafts the information as part of a news story or feature. Thus, the final message may not be precisely what the marketer planned.

Third, while a PR campaign has the potential to yield a high return on promotional expense, it also has the potential to produce the opposite if the news media feels there is little value in running a story pitched (*i.e.*, suggested via communication with the news outlet) by the marketer.

Fourth, with PR there is always a chance that a well devised news event or release will get "bumped" from planned media coverage because of a more critical breaking news story, such as wars, severe weather or serious crime.

Finally, in some areas of the world the impact of traditional news outlets is fading forcing public relations professionals to scramble to find new ways to reach their target markets.

Self Assessment

Multiple Choice Questions:

3. Negative public relations, also called:
   (a) DPR (b) DRP
   (c) PDR (d) None of these.
4. Promotional option of public relations depends on:
   (a) Product (b) Promotion
   (c) Media (d) None of these.

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14.4 Objectives and Methods of Marketing Objectives

Like other aspects of marketing promotion, public relations are used to address several broad objectives including:

- ***Building Product Awareness:*** When introducing a new product or relaunching an existing product, marketers can use a PR element that generates consumer attention and awareness through media placements and special events.
- ***Creating Interest :*** Whether a PR placement is a short product article or is included with other products in "round up" article, stories in the media can help entice a targeted audience to try the product. For example, around the holiday season, a special holiday food may be promoted with PR through promotional releases sent to the food media or through special events that sample the product.
- ***Providing Information:*** PR can be used to provide customers with more in depth information about products and services. Through articles, collateral materials, newsletters and websites, PR delivers information to customers that can help them gain understanding of the product.
- ***Stimulating Demand:*** A positive article in a newspaper, on a TV news show or mentioned on the Internet, often results in a discernable increase in product sales.
- ***Reinforcing the Brand :*** In many companies the public relations function is also involved with brand reinforcement by maintaining positive relationships with key audiences, and thereby aiding in building a strong image. Today it is ever more important for companies and brands to build a good image. A strong image helps the company build its business and it can help the company in times of crises as well.

Methods

With more and more of your customers coming online to talk with, shop, read, and research, being easily accessible online is vital to your company's success. Customers come online to read about you from other customers, the media, and your own website. With so many places for them to find out about you, ensure that you are monitoring the WOM (word of mouth) being generated about you. Since it's a bit difficult to control the WOM your company receives online, you can control the content your own site or blog produces. Creating great content on your site can help to influence the other WOM media or bloggers share about you, and it can also help customers to see the whole picture despite some negative WOM they may have read about you elsewhere. This requires that you actively monitor other sources of information and that you are actively participating on your own website.

The four ways to help customers find you first:

1. Use keyword rich copy. Learn what customers are searching for by using Google Alerts and the Google Keyword tool to see what keywords customers are searching for. Though this will give you a large list of keywords customers search for regularly, remember to pay attention to the longer keyword sequences, or the long-tail keywords. These are keywords and phrases that fewer customers search for because of their length. The main thing to remember here is that searches made in an online search engine like Google are often times brand new searches that web users have never searched for before. This is important to remember so that you can avoid competing with the millions of other blogs trying to be found through some of the most searched keywords. It is hard to differentiate yourself as it is, so why not do something small that will make it a bit easier?
2. Optimize your images. Just like the title and the rest of your website's copy, you can optimize your image titles. Since search engine spiders (who "crawl" the web,

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documenting the Internet's content) cannot "see" images, having a great picture on a website might not do much to help your customers find you. It may help to make their visit more pleasant once they get to your site, but in order to increase your chances of being found in a search engine results page, save your image with the same keyword-rich title you give the webpage or blog post. This will help search engine spiders to see the importance of your image and also help to increase the search engine results that your blog post or website appear in.

3. Use multiple vehicles to share your information and content. This means creating videos, blog posts, and audio recordings to share your information. With people learning in different ways, a blog post may become more interesting for someone who prefers to hear someone talk rather than read themselves. Creating multiple methods for people to "hear" you can greatly improve your chances of reaching more people.
4. Share your content. Use Twitter, Facebook, LinkedIn, RSS feeds, etc., to share when your blog is updated or when you add a new video resource. This can also increase your reach. Your target audiences may be on different platforms or different social media sites so use all that are applicable and relevant. Moreover, RSS feeds may be useful to readers who read all of their favorite blogs that way.

Notes Overall, remember that your audiences are unique and may have different search methods or preferred methods of consuming content. Make as much available as possible, and incorporate SEO (search engine optimization) tactics (using keywords customers search for) into your website content to increase your chances of being found.

Self Assessment

State whether the following statements are true or false:

5. PR can be used to provide customers with more in depth information about products and services.
6. A positive article in a newspaper, on a TV news show or mentioned on the Internet, often results in a discernable increase in product sales.

14.5 Summary

- The public relation is "the art and social science of analyzing trends, predicting their consequences, counseling organizational leaders, and implementing planned programs of action, which will serve both the organization and the public interest."
- An another definition is the practice of managing communication between an organization and its publics.
- Public relations provides an organization or individual exposure to their audiences using topics of public interest and news items that provide a third-party endorsement and do not direct payment.
- Common activities include speaking at conferences, working with the media, crisis communications, social media engagement, and employee communication.

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14.6 Keywords

Public Relations : Public relations primarily concerns enhancing and maintaining the image for business, non-profit organisations, events for high-profile people such as celebraties and politicians.

Lobby Groups : Lobby groups are established to influence government policy, corporate policy or public opinion.

Spin : In PR, spin is sometimes a pejorative term signifying a heavily biased portrayal in specific favour of an event or situation.

Negative PR : Negative PR also called dark public relation (DPR) is a process of destroying the target's reputation and corporate identity.

14.7 Review Questions

1. Define the term Negative PR.
2. What do you mean by creating interest?
3. Write a short note on stimulating demand.
4. What does optimizing the image mean?
5. Explain the public relation.
6. Write the tools used in public relations.
7. Write a short note on Targeting publics.
8. Write the needs of public relation.
9. Write the advantages and disadvantages of public relations.
10. Explain the objectives and methods of marketing.

Answers: Self Assessment

1. Public Relations Society of America (PRSA)
2. media kit
3. (a)
4. (c)
5. True
6. True

14.8 Further Readings

Books Lancaster, (F.W): *If you want to evaluate your Library*

Prasher, (R.G): *Information and its communication*

Laloo, (Bikika Tariaing): *Information needs, information seeking behaviours and users*, Delhi, Ess Ess, 2002

Jordan, (Peter): *The academic Library and its users,* Gover, 1998.

Online links

http://persmin.gov.in/otraining/UNDPProject/undp_modules/ http://www.smallbusinessnotes.com/starting-a-business/