

## **COURSE GUIDE**

### **LIS 101 INFORMATION LITERACY**

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## INTRODUCTION

Welcome to **LIS 101: Information Literacy**. This Course Guide is a brief description of what the course is about and the course material will give you the contents of what you are expected to learn in this course. It also contains some general guidelines on the amount of time you are expected to spend on each unit of this course to complete the course. There is a separate Assignment File which contains detailed information on tutor-marked assignments that you are expected to answer after each unit.

## WHAT YOU WILL LEARN IN THIS COURSE

This course will give you, the awareness of the importance of Information Literacy in a library and information science. The course will introduce you to the concept of information literacy; the importance of information literacy to information professionals; definition of information, characteristics and types of information, theories, models and practice of information literacy; access tools and information retrieval; databases; search strategies, internet and ethical issues in information access and utilisation

## COURSE AIMS

This course aims to equip you with information literacy skills as information professionals that will be assisting information seekers to meet their needs.

## COURSE OBJECTIVES

To achieve the above aims, some general objectives are set for the course. The course is divided into units and each unit has a specific objective at the beginning. You may want to refer to them during and after you might have completed a unit to check the pace of your progress. The general objectives set below cover the whole course. By meeting these objectives, you should have achieved the aims of the course.

On successful completion of the course, you should be able to:

- Define and explain the meaning of Information Literacy (IL).
- Clarify the following terms/concepts: Information, information literacy; gateways, plagiarism, referencing, citation, the internet, world-wide-web, social media etc.
- Describe the Historical Development of internet
- Access to online journals and databases.
- Explain the advantages and disadvantages of using search engines

## WORKING THROUGH THE COURSE

To complete this course, you are advised to read each study unit of this study material and read other materials, which may be provided by the National Open University of Nigeria (NOUN). Self-assessment exercises are included in each unit and you will be required to submit tutor-marked assignments for assignment purposes. There will be a final examination at the end of the course. The course will be divided into learnable units and you can allocate your own time to the units so that you can complete the course at a record time. You are advised to utilise the opportunity of tutorial sessions for comparing notes and sharing ideas with your colleagues.

## COURSE MATERIALS

Major components of the course are:

- The Course Guide
- Study Units
- Assignments
- References /Further Reading

## STUDY UNITS

There are 15 study units divided into four modules in this course. The modules and units are presented as follows:

### Module 1    **Definitions of Concepts**

Unit 1	Functions and Importance of Information Literacy
Unit 2	Characteristics and Types of Information
Unit 3	Relationship between Technology and Information Literacy

### Module 2    **Theories, Models and Practice of Information Literacy**

Unit 1	Information literacy theories
Unit 2	Information Literacy Models

### Module 3    **Information Literacy Skills**

Unit 1	Information needs and wants /desire
Unit 2	Information Sources
Unit 3	Information Access tools and Search Strategies
Unit 4	Internet as Information Provider

## **Module 4    New Trends and Ethical Issues in Information Access and Utilisation**

Unit 1	Plagiarism
Unit 2	Referencing and Citation
Unit 3	New trends in information literacy and its application in Libraries and information Centres
Unit 4	Development of Information Literacy Programs

Each unit consists of a table of contents, introduction, statement of objectives, main content, conclusion, summary and references. There are activities at every point that will assist you in achieving the stated objectives of the individual units of this course.

### **ASSIGNMENT FILE**

Each unit contains many self – assessment exercises in general. These self – tests question you on the materials you have just covered or require you to apply it in some way and, thereby assist you to evaluate your progress as well as reinforce your understanding of the materials. These exercises will assist you in achieving the stated learning objectives of the individual units and the course in general.

### **ASSESSMENT**

Assessment method will be two-folds. These are continuous assessments known as tutor-marked assignments (TMAs), which are computer-based and final examination. The course materials are prepared to assist you to do the TMAs. You are expected to utilize the information and knowledge from your course material and recommended texts at the end of each unit. Your TMAs will be 30% of the total marks while the final examination at the end of the course will be 70%.

### **COURSE MARKING SCHEME**

<b>Assessment</b>	<b>Marks</b>
Continuous Assessment (best 3 out of all the TMAs submitted)	Each TMA has a maximum score of 10% totalling 30%
Final Examination	70% of Overall Course Score
Total	100% of Course Score

## HOW TO GET THE MOST FROM THIS COURSE

In distance learning, the study units replace the university lecturer. The advantage is that you can read and work through the course materials at your pace, time and location or environment that suits you best. Think of it as reading the lecture instead of listening to the lecturer. Just as the lecturer might give you in-class exercise, this sturdy unit provides appropriate exercises that will keep you abreast the pace of your progress in the course.

Each study unit is designed in a peculiar format that will facilitate your learning. It starts with an introduction to the subject-matter of the unit and how a particular unit is integrated with the other units and the course as a whole. This is followed by the objectives. These objectives will let you know what you should be able to do by the time you have completed the unit. Use the objectives to assess your progress at the end of every unit.

The main body of the unit will serve as a roadmap that will guide you through the required reading from other sources. This is usually from either your references or from a reading section.

Self-activities are entrenched throughout the units and going through them religiously will help you to achieve the objectives of the unit and prepare you for the assignment and examination. Equally, go through each self-activity as you come across it in the study unit.

You can follow this practical strategy for working through the course. In case you run into a problem, do not hesitate to telephone your tutor/facilitator or visit the study centre nearest to you. Note that your tutor/facilitator's job is to help you. When you need assistance, do not hesitate to call and ask your tutor/facilitator to provide it.

### **Read This Course Guide Thoroughly, It Is Your First Assignment.**

Organize a Study Schedule - Design a 'course overview' to guide you through the course. Take note of the duration of every unit and the assignment related to it. Keep a diary of important information, e. g., details of your tutorials, duration of a semester, when you are to submit your assignment, etc. Map out your schedule of work for each unit.

Once you have mapped out your study schedule, follow it religiously and stay focused. A major cause of failure is not keeping abreast with the schedule of work. If you get into any difficulty concerning your study, inform your tutor/facilitator on time.

Read the introduction and objectives of every unit before working through it.

Assemble the study materials. Information about what you need is given at the beginning of each unit. You will always need both the study unit you are working on and one of your textbooks on your desk at the same time.

Study critically the course information that will be continuously posted to you and does not fail to visit your Study Centre for up-to-date information.

Before the due dates (at least 4 weeks before the dates), visit your Study Centre for your next required assignment. Be assured that you will learn a lot by doing your assignment to meet the objectives of the course and will help you to pass your examination. Make sure your assignments are submitted not later than the due dates.

A revision of each study unit objectives will assist you to confirm whether you have achieved them. In case you are not sure whether you have achieved the objectives, review the study materials or consult your tutor/ facilitator. When you are sure that you have achieved the unit's objectives, you can proceed to the next unit. Go through the course unit by unit and ensure that you space your study in a manner that you can keep to the schedule.

After completing the last unit, review the course and get prepared for the final examination. Ensure that you have achieved the unit objectives (listed at the beginning of each unit) and the course objectives (listed on the Course Guide).

## **FACILITATION/TUTOR AND TUTORIALS**

Facilitation/Tutorials shall be provided in support of this course. You will be notified of the dates, times and locations of these tutorials as well as the names and phone number of your facilitator, as soon as you are allocated a tutorial group.

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## **MODULE 1      DEFINITION OF CONCEPTS**

This module will expose you to the concept of information literacy. As you know, information is needed for self-development, daily living and national development. In this era of information explosion as a result of the advent of technology, you need information literacy skills to enable you to make effective and efficient use of information for greater productivity. This and other importance of information literacy will be discussed in this module.

Unit 1	Functions and Importance of Information Literacy
Unit 2	Characteristics and Types of Information
Unit 3	Relationship between Technology and Information Literacy

### **UNIT 1   FUNCTIONS AND IMPORTANCE OF INFORMATION   LITERACY**

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	3.1    Information Creation as a process
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	3.4    Dimensions of information literacy
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked Assignment
7.0	References/Further Reading

#### **1.0    INTRODUCTION**

This unit will introduce you to the various definitions of information literacy. Also, the importance and dimensions of information literacy will be discussed.

#### **2.0    OBJECTIVES**

By the end of this unit, you will be able to:

- identify the functions and importance of information literacy
- explain the dimensions of information literacy.

## 3.0 MAIN CONTENT

### 3.1 Information Creation as a Process

Information appears in a range of forms and shapes. Depending on whether it is in the form of a newspaper article, a scholarly book or a formatted report, the creation of information requires a procedure. Understanding how and why authors publish in a particular format, what those formats require in terms of fact-checking, or sourcing, or expertise, what editorial oversight exists, the role of publishers—all these considerations may play into your thinking about the relevance of a particular information source to your research question.

#### **Information Has Value**

The information has value and this value is not in terms of money rather the implications to students, researchers and information consumers are both how information is produced and how it is disseminated. It has economic value as a commodity, for example, as evidenced by intellectual property rights and other legal considerations, and by the considerable role of the publishing industry. Information also has educational and social value, with its ability to inform, educate, and persuade.

### 3.2 Definition of Information Literacy

According to the American Library Association, information literacy as a set of abilities empowering individuals to recognise when information is needed and to be able to locate it, evaluate it and use it effectively. The Presidential Committee on Information Literacy also defined information literacy as a set of skills, which requires an individual to: “recognise when information is needed and can **locate**, **evaluate**, and **use** effectively the needed information.”

The Prague Declaration (2003) states that information literacy is the ability to identify what information is needed, understand how the information is organised, identify the best sources of information for a given need, locate those sources, evaluate the sources critically, and share that information. It is the knowledge of commonly used research techniques. “Information literacy forms the basis for lifelong learning. It is common to all professions, to all learning environments, and all levels of education. It enables learners to master content and extend their investigations, become more self-directed, and assume greater control over their learning.”

As derived from the Alexandria Proclamation of 2005, adopted by UNESCO's Information for all Programme (IFAP), Information Literacy is the capacity of people to:

- Recognise their information needs;
- Locate and evaluate the quality of information;
- Store and retrieve information;
- Make effective and ethical use of information, and
- Apply information to create and communicate knowledge.

### **3.3 Functions and Importance of Information Literacy**

In the present days, understanding information literacy is very important because it encourages problem-solving approaches, thinking skills, asking questions and seeking answers. Information literacy helps you to find needed information, evaluate sources and helps to foster decision making. Information Literacy is the set of aids required to find, retrieve, analyse and use information. As a result of information explosion due to the advent of technology, it became increasingly clear that you cannot learn all you need to know in your field of study at the university as well as in your place of employment. Information literacy tends to equip us with the critical skills necessary to become independent lifelong learners. Too often we assume that since we can write research papers and read textbooks that are gaining information literacy skills unfortunately this is incorrect.

The American Library Association Presidential Committee on Information Literacy (January 10, 1989, Washington, D.C) states that "Ultimately, information literate people are those who have learned how to learn. They know how to learn because they know how knowledge is organised, 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".

The Importance of Information literacy has been summed up by Bound as "Information Literacy is a prerequisite for participative citizenship, social inclusion, the creation of new knowledge, knowledge sharing, personal empowerment and learning for life". Importance of information literacy is listed as follows:

- information literacy is needed to understand the difficult question of ownership of information and copyright
- students should learn to respect the author's right

- to be an independent lifelong learner it is essential to achieve a high level of information literacy
- information literacy is to help close the **gap** between the information poor and the information-rich
- Information literacy is required to have a critical thinking approach, that would lead to the economic and cultural progress of any nation
- a sheer abundance of information in electronic format has made information literacy increasingly important

### 3.4 Dimensions of Information Literacy

**Media Literacy:** this is the ability to access, analyse, evaluate and create media or some of the skills needed to know when and what information is needed, where and how to find that information, how to evaluate it critically and organise it once it is found and how to use it ethically. The concept extends beyond professional and educational boundaries

**Network Literacy:** this is an emerging digital literacy which deals with computer and network skills. It helps populations to participate in the networked society. Web Literacy relates a subset of information literacy which requires the ability to access, search, utilize, communicate and create information on the World Wide Web (WWW).

**Digital Literacy:** this is very significant in the current context, Digital Literacy deals with the knowledge, skills and behaviour of the users in a wide range of digital devices such as smartphones, laptops desks tops.

**Scientific Literacy:** this deals with the knowledge and understanding of scientific concepts and processes needed for personal decision making, participation in civic and cultural affairs and economic productivity. It also includes specific types of abilities. In the National Science Education Standards, the content standards define scientific literacy

**Visual Literacy:** this is the ability to understand the information in the form of graphics, images, and presentations and interpret the same. This includes thinking, learning, and expressing oneself in terms of image, photographs, cartoons, line drawings, diagrams, concept maps, and other visual representations are all important in visual literacy; and Critical literacy i.e., the ability to evaluate critically the human, intellectual and social strengths, limits, benefits and costs of it.

## 4.0 CONCLUSION

In this unit, you have learnt the definition of information and information literacy. You also learnt the functions and importance of information literacy (IL).

## 5.0 SUMMARY

In this unit, you have learnt the importance of information literacy. Information literacy skills are needed for the effective and efficient use of information for lifelong learning. Also, various dimensions of information literacy were discussed. In the next unit, you shall learn the characteristics and types of information.

## 6.0 TUTOR-MARKED ASSIGNMENT

1. List and explain the dimensions of information literacy.
2. What are the functions and importance of Information Literacy?

## 7.0 REFERENCES/FURTHER READING

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## **UNIT 2 CHARACTERISTICS AND TYPES OF INFORMATION**

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- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Characteristics of Information.
  - 3.2 Types of Information
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

### **1.0 INTRODUCTION**

This unit will introduce you to the Characteristics of Information.

### **2.0 OBJECTIVES**

By the end of this unit, you will be able to:

- Characteristics of Information
- understand the relevance of information
- types of information.

### **3.0 MAIN CONTENT**

#### **3.1 Characteristics of Information**

What can you understand by characteristics of information? For you to be able to explain this, you need to understand what good information is. Good information is any information that can be useful, which can be used to create/add value. Experience and research show that good information has numerous qualities. Good information is relevant for its purpose, sufficiently accurate for its purpose, completely enough for the problem, reliable and targeted to the right person. It is also communicated timely for its purpose, contains the right level of detail and is communicated through an appropriate channel, i.e. one that is understandable to the user. Further details of these characteristics related to organisational information for decision-making follows:

**Availability/accessibility**

Information should be easy to obtain or access. Information kept in a book of some kind is only available and easy to access only if you have the book at hand. A good example of availability is a Google map on our android phones, as everyone may at a point need assistance to locate a place they immediately consult the map for assistance and promptly it will give you the appropriate direction. Another example is card catalogues in the library, you realise when you visit the library you are expected to make use of the cards for assistance in locating where a particular book is on the shelves. One more example is in our banking transactions. Banks in Nigeria now have a USSD code that you dial to get your account information, balance or even opening of a new account without you visiting the bank for assistance.

**Accuracy**

Information needs to be accurate enough for the use to which it is going to be put. To obtain information that is 100% accurate is usually unrealistic as it is likely to be too expensive to produce on time. The degree of accuracy depends upon the circumstances. At operational levels, information may need to be accurate to the nearest penny – on a supermarket till receipt, for example.

Accuracy is important. As an example, if Nigerian government statistics based on the last census wrongly show an increase in births within an area, plans may be made to build schools and construction companies may invest in new housing developments. In these cases, any investment may not be recovered.

**Reliability or objectivity**

Reliability deals with the truth of information or the objectivity with which it is presented. You can only really use information confidently if you are sure of its reliability and objectivity. When researching for an essay in any subject, we might make straight for the library to find a suitable book. Though we are reasonably confident that the information found in a book, especially one that the library has purchased, is reliable and (in the case of factual information) objective. The book has been written and the author's name is usually printed for all to see. The publisher should have employed an editor and an expert in the field to edit the book and question any factual doubts they may have. Much time and energy go into publishing a book and for that reason, we can be reasonably confident that the information is reliable and objective.

On the other hand, compare information found in a well-published book to information on the Internet where anybody can write unedited and

unverified material and ‘publish’ it on the web example of this is the Wikipedia. Unless you know who the author is, or a reputable university or government agency backs up the research, then you cannot be sure that the information is reliable. Some Internet websites are like vanity publishing, where anyone can write a book and pay certain (vanity) publishers to publish it.

### **Relevance/appropriateness**

Information should be relevant to the purpose for which it is required. It must be appropriate. What is relevant for one person may not be relevant for another. The user will become frustrated if the information contains data irrelevant to the task in hand. A piece of good information should not be ambiguous thereby confusing the user.

### **Completeness**

Information should contain all the details required by the user. Otherwise, it may not be useful as the basis for making a decision. Ideally, all the information needed for a particular decision should be available. However, this rarely happens; good information is often incomplete. To meet all the needs of the situation, you often have to collect it from a variety of sources.

### **Level of detail/conciseness**

Information should be in a form that is short enough to allow for its examination and use. There should be no extraneous information which is irrelevant at that point. For example, it is very common practice to summarize financial data and present this information, both in the form of figures and by using a chart or graph.

### **Presentation**

The presentation of information is important to the user. Information can be more easily assimilated if it is beautifully presented. For example, when a student is presenting a seminar with PowerPoint slides it will be more interesting to the audience when pictorial / graphics are added to the slides thereby presenting the information for them to understand. These presentations have usually been well thought out to be visually attractive and to convey the correct amount of detail.

### **Timing**

The information must be on time for the purpose for which it is required. Information received too late tends to be irrelevant. For instance, if a doctor needs to receive a patient’s vitals from the Laboratory Scientist and notice there was a delay or omission of a result, the doctor would need to send it back for reprocessing then the information is too late to be of use.

**Value of information**

The relative importance of information for decision-making can increase or decrease its value to an organisation. For example, banks require information on a competitor's performance that is critical to their own decision on whether to invest in new business. The value of this information would be high. Always keep in mind that information should be available on time, within cost constraints and be legally obtained.

**Cost of information**

Information should be available within set cost levels that may vary dependent on the situation. If costs are too high to obtain information, an organization may decide to seek slightly less comprehensive information elsewhere. For example, an organization wants to commission a market survey on a new product. The survey could cost more than the forecast initial profit from the product. In that situation, the organization would probably decide that a less costly source of information should be used, even if it may give substandard information.

**3.2 Types of Information**

Knowing the type of information can help one to identify its origin, use and its relevance to the user's information need. Your sources of information entirely depend on what type of information you need.

**(a) Factual vs. Analytical****Factual Information**

Factual information is simple, brief, straightforward and not arguable (indisputable). No analysis or interpretation is needed. Factual information is mostly found in short answer sources such as:

Dictionaries  
Atlases  
Handbooks  
Directories  
Encyclopedias

**Analytical Information**

Analytical Information is detailed and usually the result of much research and interpretation of factual information (analysis) often by experts in a field. Analytical information is mostly found in a longer format Sources such as:

Books  
Journal articles  
Subject Encyclopedias

**(b) Objective vs. Subjective Information**

**Objective Information**

Objective Information is biased information that represents multiple points of view. It features nonjudgmental, balanced, neutral reporting of facts. Objective information is mostly found in sources such as:

Encyclopedias  
Handbooks  
Journal articles

**Subjective Information**

This type of information is from one point of view. It features opinion and personal viewpoints. Whilst subjective information can be based on fact, it is one person's interpretation of the fact. Subjective information is mostly found in sources such as:

Newspapers (mostly editorial columns)  
Advocacy web sites  
Reviews

**(c) Primary vs. Secondary Information**

**Primary Information**

Primary Information is the original material such as first-hand account of an event or a work of literature or art that has not been interpreted, analyzed, condensed or changed by anyone other than its creator.

Primary information is mostly found in sources such as:

Diaries  
Letters  
Interviews  
Professor's lecture

**Secondary Information**

Secondary information is one or more steps removed from the original research or event. These sources often analyze and interpret

primary sources drawing upon them to explain events of the past or explore the meaning of works of art. They are often produced well after the events or primary sources they comment upon, and their authors tend to be modern scholars or commentators rather than eyewitnesses of what they write about. Secondary information is mostly found in sources such as:

Journal articles  
Books  
Biographies  
Documentaries  
Review articles

**(d) Current vs. Historical**

Another characteristic of information to consider in selecting sources is whether it is current or historical. It is very important to look at the date of a publication or web site depending on your topic or the type of information you need. If you are sourcing for information on health issues, current information will be of utmost importance. Current and historical sources may be both required for a thorough understanding of a topic. It is therefore important to look at the publication date and think critically about whether needs the most current information, historical information or both. Also, consider the discipline. E.g. In science, the most up-to-date information is required. In the humanities, historical information may be the most important. In the social sciences, historical and current information are often consulted.

## **4.0 CONCLUSION**

What can you understand by characteristics of information? For you to be able to explain this question you need to understand what is referred to as good information. Good information is any information that can be useful which can be used to create value.

## **5.0 SUMMARY**

In this unit, you have learnt the characteristics of Information and the types of information with examples. In the next unit, we shall look at the relationship between technology and information literacy.

## 6.0 TUTOR-MARKED ASSIGNMENT

List the characteristics of information

## 7.0 REFERENCES/FURTHER READING

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## **UNIT 3      RELATIONSHIP BETWEEN TECHNOLOGY AND INFORMATION LITERACY**

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- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Definition of Technology and Information Literacy
  - 3.2 Relationship Between Technology and Information Literacy
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-marked Assignment
- 7.0 References/Further Reading

### **1.0 INTRODUCTION**

You must have used technology somehow to find information. In fact, to some, it is almost impossible to locate information without technology. In this unit, you shall learn the relationship between technology and information literacy.

### **2.0 OBJECTIVES**

By the end of this unit, you will be able to:

- explain the concept of technology
- discuss the relationship that exists between technology and information literacy.

### **3.0 MAIN CONTENT**

#### **3.1 Definition of Technology**

The technology dates back to the beginning of man's history. It is a means of applying a solution to problems encountered. The Early Man invented fire to keep himself warm, cook and preserve his food. Technology means several things to several people. It is scientific. This informed the definition of Galbraith (1967) which described technology as "the systematic application of scientific or other organized knowledge to a practical task." Akanbi (1988) also described technology as "an application of scientific knowledge and principles about human learning, communication and

management to the solution of problems in teaching and learning. The process of applying a means that could solve the problems or needs of man in technology. This is intrinsically related to the culture and needs of man. Thus we have print technology, wood technology, textile technology, educational technology, etc.

### **Information literacy**

Information Literacy is the ability to know when and why you need information, where to find it, how to evaluate, use and communicate in an ethical manner (ALA 2005). Information Literacy training at NOUN equips students and researchers with knowledge and skills to identify, retrieve, evaluate, and ethically use and communicate information from various information sources.

## **3.2 Relationship Between Technology and Information Literacy**

Technology and information literacy are essential for individuals to function and succeed in today's society; they are distinct but inter-related. In an increasingly technological society, the means of authoring, information finding and organisation and research, and even information use are increasingly mediated by information and technology. Both information and technology shapes the channels of publication, access and dissemination of information; the influence, and the intrinsic nature of digital documents, raises new issues in the activities and practices of analysis, assessment, evaluation and criticism. And much of today's information and technology supporting infrastructure is intended to enable communication, information finding, information access and information delivery. Technology is related to information literacy because it helps support students reading, writing and research development.

Educational technologies that support the development of students' reading skills include audiobooks, e-books, audiovisual, online texts, and programmed reading instruction.

**Audiobooks.** Audiobooks, sometimes known as books on tape, are professionally recorded, unabridged versions of fiction or nonfiction books. They are available on regular audiocassettes or four-track cassettes that require a special cassette player. Audiobooks promote students' interest in reading and improve their comprehension of a text, notes Beers (1998). They also have been used successfully by students who cannot read traditional printed books because of visual or physical handicaps.

**E-Books and Online Texts:** Electronic books also known as e-books, are electronic texts that are presented visually. Whether available on CD-ROM, the Internet, or special disks, e-books always provide the text in a visual component. Some electronic books incorporate text enhancements, such as definitions of words or background information on ideas. Others offer illustrations that complement the story.

Online texts are those that are available on the World Wide Web (www). With access to an Internet-connected gadget, students can find a wide variety of free online reading materials, including books, plays, short stories, magazines and reference materials. This benefit is especially useful for students in schools that have few resources for the acquisition of new books.

Electronic books and online texts often are equipped with hypermedia links to text, data, graphics, audio, or video. As students read the text, they can click on the links to access definitions of words, additional information on concepts, illustrations, animations, and video all of which can increase their understanding of the material.

### **Technologies That Support Students' Writing Development**

Educational technologies that support the development of students' writing skills include word processing, desktop publishing, multimedia composing, online publishing, and Internet communication.

**Word Processing:** Word processing is the pioneer application of educational technology used in writing instruction. Although it requires the mastery of basic keyboarding skills, word processing allows many students to write and edit their work more easily.

**Internet-Based Communication:** this is another way to promote student writing through electronic mail (e-mail), electronic bulletin boards, and e-mail lists. Such Internet-based communication can be with peers, adults, or professional experts from around the world. Students can use this technological support to exchange ideas with students and lecturers of other schools without having to be present in one place.

### **Technologies That Support Students' Research and Collaboration Skills**

Technologies that support students' research and collaboration skills include Internet search engines, online tools for evaluating Web-based information, and Web sites that offer collaborative activities.

**Internet Search Engines:** The Internet has gained drive as the infrastructure on which international knowledge is created and shared. Use of Internet search engines can promote students' research and investigation skills and enable them to locate online information on any possible topic with ease. Students also can access online journals, magazines, newspapers, encyclopedias, and informative Web sites. Unfortunately, some information on the Web is neither accurate nor reputable. Students need to learn how to evaluate this information.

**Online Tools for Evaluating Web-Based Information:** The need to evaluate online information sources is important as a basic literacy skill. Online tools for evaluating online information provide strategies for determining the accuracy, quality, and timeliness of online information.

#### **4.0 CONCLUSION**

You have seen that to satisfy your information needs, you must apply technology during your searches. It is impossible to separate information literacy skills from technological skills.

#### **5.0 SUMMARY**

In this unit, you have learnt the relationship between technology and information literacy.

#### **6.0 TUTOR- MARKED ASSIGNMENT**

Discuss the relationship between technology and information literacy?

#### **7.0 REFERENCES/FURTHER READING**

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## **MODULE 2      INFORMATION LITERACY THEORIES**

### **INTRODUCTION**

Information is vital in our daily lives. The world is experiencing an information explosion with the advent of technology. This is where information literacy comes in as a purposeful information practice to enable you to systematically search through the wealth of available information with a high degree of retrieval of relevant literature. What then is information literacy? There are variations in the definitions of information literacy depending on the approach, theory or model in use. The approaches help stakeholders to determine how they teach or carry out researches on information literacy. In this module, we shall be discussing three theories of information literacy namely phenomenography theory, sociocultural theory and Foucauldian discourse analysis theory. Also, you shall learn the different models of information literacy.

Unit 1	Information literacy theories
Unit 2	Information Literacy Models

### **UNIT 1      THEORIES OF INFORMATION LITERACY**

#### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Phenomenographic Theory
  - 3.2 Socio-Cultural Theory of Information Literacy
  - 3.3 Discourse Analytic Theory of Information Literacy
  - 3.4 Comparison between Phenomenographic, Socio-Cultural and Discourse Analytic Theories
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

#### **1.0 INTRODUCTION**

This unit will introduce you to three basic theories of information literacy, to the library and information science.

## 2.0 OBJECTIVES

By the end of this unit, you will be able to:

- understand the theories of information Literacy
- compare the theories between each other.

## 3.0 MAIN CONTENT

### 3.1 Phenomenographic Theory

This theory which emerged in 1970 adopted the constructivist approach to learning. It appreciates the fact that there are variations in the way people learn or perceive issues. It is therefore learners centred. This approach later developed into variation theory (Marton & Trigwell 2000).

Looking at information literacy from the angle of phenomenographic theory, there are various ways different individuals seek and use information even for the same task. This may be linked to the different interpretations/meanings to information which implies learning. The theory has a strong interest in learning and concentrates on how information is used in learning rather than how information is sought or found (Bruce, 2003). Researchers believe that the differences between students' ways of using information interact closely with the quality of their learning outcomes, not their ways of seeking and finding information (Bruce, 2008; Limberg 1999).

#### **Variation in Experiences of Information Literacy**

phenomenographic studies focused on the variations in the way different groups/disciplines experience information literacy such as librarians, teachers, students, etc. Researchers used semi-structured interviews to get the variations in their experiences of information literacy. The result of one of such studies (Bruce, 1997), presented seven phases of information literacy in a hierarchy as follows:

- 1) IT: The ability to use IT for seeking and communicating information
- 2) Sources: This is the ability to seek and find information sources,
- 3) Process: This is the ability to execute a piece of information seeking process
- 4) Control: This is the ability to organise and control information
- 5) Knowledge Construction: This is the ability to build a knowledge base in a new area of interest
- 6) Knowledge Extension: This is the ability to work with knowledge and personal perspectives for new insights

- 7) **Wisdom:** This is the ability to use information wisely for the benefit of others.

Phase seven which is the ability to use wisdom wisely for the benefit of others is the highest, while phase one, the ability to use IT for seeking and communicating information is least on the hierarchy. All of the phases together constitute information literacy and just one or two phases are not adequate as information literacy will be reduced to a mere seeking and finding information. Embracing all seven faces of information literacy will have clear implications for ways of teaching information literacy. It will lead to less emphasis on seeking and finding information, which is still prevalent in instructional models and tutorials (e.g. Sundin 2008). Teaching and learning of information literacy with the seven phases holistically put into consideration will lead to paying more attention to the evaluation, assessment, analysis, interpretation and ethical use of information to construct meaning from information. An identified information need is often indicated as triggering information seeking and is seen as an essential dimension of information literacy by librarians, while lecturers rarely experienced or expressed an explicit information need. Both lecturers from various disciplines and librarians underscore critical thinking and independent learning as important dimensions of information use, but while lecturers from the humanities focus on research and text production, lecturers in marketing are more interested in business intelligence and problem-solving (Webber, Boon & Johnston 2005).

Phenomenographic theory is similar to the meta-cognitive theory propounded by some researchers (Zohar & David, 2009). It is also learners centred and focuses on the variations in learners' thoughts about a concept. The learner, therefore, is in control of his cognitive system. This theory consists of three interrelated components (Bowler, [2010](#)) namely:

- self knowledge: This deals with the awareness of one's cognition, including knowledge of one's strengths and weaknesses and the awareness of one's motivational beliefs.
- Task knowledge: This deals with the knowledge of the cognitive demands of the task.
- Strategic knowledge: This deals with the procedural knowledge of cognitive strategies to employ when unsuccessful.

The application of meta-cognitive theory to information literacy would involve, an intense reflection on, first, the information need and of what it is comprised, but also reflection on the evaluation of the information retrieved (and its relation to the need), plus the integration into the student's knowledge base. Among other things, the application of the

theory must address the handling of cognitive dissonance. This challenge rests on a constructivist model of critical assimilation and resolution within an existing knowledge structure.

### **3.2 Socio-Cultural Theory of Information Literacy**

The socio-cultural theory of learning emphasizes the relationship between individuals and various forms of collective practices. We discover that individuals have a link with various groups with different practices that influence how they learn. For instance, a student may have a link with the university environment, his community where he lives, may also be a worker who has a link with his work environment which will force him to learn a specific language, concepts, theories and beliefs for him to blend with the groups. Hence, information literacy implies learning to communicate appropriately within a specific practice. This theory also highlights the use of linguistics and physical artefacts (cultural tools) for communication in a way that corresponds with the purpose of the practice (Lankshear & Knobel 2008; Säljö 2000). Learning from the socio-cultural perspective was defined as “the appropriation and mastery of communicative (including conceptual) and technical tools that serve as mediational means in social practices” (Säljö 1996). For instance, there are several activities we engage to successfully carry out our daily activities and relate with people in our environment e.g we may blog, google, tweet, or search for books in library catalogues and databases. Remember that you can only carry out these activities only if you can use these tools. There is therefore a strong relationship between actions (physical & linguistic) and tools in a socio-cultural perspective on information seeking and learning information literacy (Säljö 1999). In other words, the functions of search engines and social networking tools influence our possibilities for actions. Possibilities for actions can be influenced by the functionalities of each tool for tools have limitations. Similarly, the language tools have limits and this determines what can be thought, said or written in each discipline. The technologies of literacy should not be optional add-ons, but rather should be part of the definition of every form of literacy. Thus, a theory of literacy in a particular setting or community needs to incorporate an analysis of the relevant technologies. However, it is important to note that tools and practices are not static or predetermined but dynamic and developing. The socio-cultural theory is often said to favour ethnographically oriented research, in which rich qualitative descriptions of people’s activities in their ‘natural’ settings form the basis of analysis. This implies that seeking, critically scrutinising, compiling or publishing information are always to some extent social activities.

The socio-cultural theory can be likened to the Ontological/epistemological Theory. Just like the socio-cultural theory, it focuses on the interaction between people, information and the knowledge practices within a particular setting; and an insight into what connects practices and what enables and constrains the on-going performance of the practice. Also, it focuses on how information activities and strategies are socially constituted, shaped, and negotiated in practices (Lloyd, [2010](#), 2012; Mornig & Lloyd, [2010](#)).

### **3.3 Discourse Analytic Theory of Information Literacy**

This theory focuses on historical forms of thought. Discourse analytic theory, just like the socio-cultural theory on information literacy aims at capturing the socially and culturally shaped ways of understanding information competences and information practices. Rather than analysing what people do or how people in practice perform specific information tasks, discourse analysts study the interpretive repertoires through which people give meanings to information competencies and practices (Talja 1999). The discourse analytic perspective thus focuses on information literacy discourses ( Heok & Luyt 2010). Most discourse analysis theories see information seekers as people who do not know and needy instead of seeing them as professionals in their fields who are competent information creators (Hedman & Sundin 2005; Olsson 2009). The first person to formulate discourse analysis as a research approach in *The Archaeology of Knowledge* was Michel Foucault in 1969. He defined discourses as systems of statements that systematically form the objects of which they speak (Foucault, 1972). In defining discourses as ‘systems of statements’, he emphasized that discourses are knowledge formations: sets of interlinked claims, assumptions and meanings. He sees these claims, assumptions and meanings as representing a specific lens which is only partial and limited in knowledge about a topic. All Researchers applying the discourse approach to information literacy must first understand the background and assumptions about every topic. For instance, when we talk about information poverty, we assume that information poverty is an objective condition that exists in the real world whereby people that lack access to specific types and genres of information are seen to be ignorant and underprivileged. Unconsciously, it is also assumed that some other populations are information-rich, and therefore privileged ( Haider & Bawden (2007). When we talk about information poverty as a condition existing in the real world, we implicitly position ourselves among the privileged; those who are capable of using information and who benefit from the power of information. We do not adopt this view consciously or intentionally, rather, this subject position is part and parcel of the information poverty discourse. In many ways, individual speakers are not the originators or producers of discourses. We are users of already existing discourses; we

have no recourse but to use the language available to us. When using existing expressions and conceptualizations, we accept implicit claims about, for instance, the nature of information claims that we would not necessarily readily accept as truthful or valid if we were to place them under conscious scrutiny.

Discourse Practices see every concept/topic as capable of having a different perspective or been looked at from different angles. For example, critical thinking in a different discipline may have different meanings. In information literacy standards, critical thinking conventionally means the evaluation of the reliability and credibility of information sources by the authority and status of the creator of their content (Tuominen, Savolainen & Talja 2005). Also, there could be a discursive shift whereby an established way of framing and approaching a topic begins to appear as too one-sided and limited due to new meaning/definitions for already established concepts. For instance, the concept of multi-literacies that seeks to convey an idea that people can be literate in numerous types of written or spoken documents or media. Some researchers have argued that the multi-literacies concept leads to serious conceptual confusion concerning the distinct dimensions of literacy practices (Buschman 2009). Others maintain that the multi-literacies concept is advantageous in that it does not foreground or represent the interests of any specific professional or cultural group (Gee 2004; Kapitzke 2003a). Usually, however, historically strong discourses do not vanish or lose their relevance with the emergence of new discourses. There may be many competing discourses concerning a specific issue like information literacy, but not all discourses are equally powerful and influential in streamlining action and curricula.

Discourse theory implies education as it determines how information literacy is taught and learnt in educational institutions. It highlights the fact that more than one truth can exist over a discourse. Again it opens up new viewpoints and promotes novel understandings concerning any topic of discussion. Conceptualisations and definitions of terms such as computer literacy influence how computer training is concretely organized, and who are seen as experts in society in matters related to computing and networked information. In general more diversified understandings of learning, information and technology will open up different spaces for learners, and expose them to views different from what might otherwise be the case (Henwood, 2000).

### 3.4 Comparison between Phenomenographic, Socio-Cultural and Discourse Analytic Theories

Information literacies concerning what is in focus and how the concept is used. These differences are summarised in Table 1.

<b>Theoretical Perspective</b>	<b>Phenomenography</b>	<b>Socio-cultural Theory</b>	<b>Discourse Analysis</b>
History	Marton et al. 1970's	Vygotsky (1896-1934). Translated into English in the 1960s-70s	Foucault 1969
Focus	Different patterns of ways of experiencing information literacy	Tool-based information literacy practices within specific contexts and communities	Identify broad historical information literacy discourses
Research Outcomes	Understand variation in people's experiences	Understand people's practices within specific communities	Understand variation in interpretive repertoires
Information Literacy	A pattern of variation of experiences of engaging with information to learn	Learning to communicate within a specific practice	Constructed differently in different conversational contexts
The lens on Information and ICT	Constituted through relations between people and what they conceptualise as information. Focus on how learners construct meaning from information	Physical as well as the linguistic emphasis on the plurality of information forms and tools	Socially and discursively shaped, but also shaping subjects and social orders
Lens on Learning	Qualitative changes in experiences of concepts or phenomena	How people appropriate tools which mediate action	How implicit cultural orders and assumptions guide teaching practices

Table 1. Comparison of the three theoretical perspectives.

Phenomenography is learner-centred. It focuses on variations in learners experiences when engaged with the information. The assumption in phenomenography is that such changes will lead to more sophisticated approaches to information seeking and use, adapted to different tasks and situations. Phenomenographic descriptions open up a range of

experiences of information literacy, which in turn may lead to an in-depth understanding of various ways of applying information seeking and use for different purposes. The focus on variation in discourse analysis theory has a different goal as the variation in phenomenography. Foucault-influenced discourse analysis focuses on broader macro-sociological and historical forms of thought and on how the way that established forms of knowledge and institutional practices mutually constitute each other. One difference between phenomenography and discourse analysis is that power is a more central interest in discourse analysis. The discourse analytic approach does not see power as something that is held or consciously imposed by anyone. Rather, power is equated with the influence of historical forms of thought; that is, established literacy discourses which originally evolved in very specific social and cultural circumstances and which continue to invisibly influence everyday practices in schools and libraries, through established ways of doing things, even when circumstances have changed considerably. A socio-cultural perspective focuses on the practices where information literacy is applied, shaped and re-shaped. A socio-cultural perspective mainly contributes to our understanding of how information literacy may be seen with the tools we use and act upon when carrying out information activities. While phenomenography focuses on the understandings and approaches of learners concerning information literacy, a sociocultural perspective emphasizes action and interaction, and people as social beings in collective and material practices. A sociocultural perspective is similar to discourse analysis in the way in which learning is seen as a social activity and tools, practices and conditions for meaning-making are shaped collectively. A sociocultural perspective strives to relate this (post)structural level to individuals' learning by exploring how people appropriate and co-develop mediating tools by acting upon them. The three perspectives offer different insights on information literacies on both empirical and theoretical levels. As regards particular interests in how new technologies and digital media reshape conditions for learning in contemporary society, the sociocultural perspective offers theoretical tools for the analysis of such changes, especially through the emphasis on learning and meaning-making as mediated by tools (digital or others). Also, a major difference is that while socio-cultural theory focuses on the reshaping of literacies as a result of advances in technologies and tools, phenomenography and discourse analysis focus on analysing issues related to experiences and interpretations concerning changes linked to the advent of digital media.

Common to all three theoretical perspectives is that they challenge a view of information literacy as a set of generic skills. They emphasize that information literacy can be understood in varied ways and is related to various practices as these are being shaped in institutions, disciplines,

discourses or occupations. These theoretical positions form the basis of our view that information literacy ultimately derives its meaning from the cultural, material and historical contexts where it is defined and applied. This implies that the term information literacy may be used to signify a series of abilities that can be connected to various ways of seeking, selecting, finding, scrutinizing, organizing and compiling information for meaningful use in late modern society, where people are expected to use the information for constructing new knowledge (cf. Andersen 2006; Säljö 2009). In conclusion, we suggest the notion of information literacies in the plural to draw attention to the significance of our analysis of the theoretical perspectives presented here for understanding information literacy.

1. Discuss the following theories :
  - a) Discourse Analytic Theory of Information Literacy
  - b) phenomenographic theory
  - c) socio-cultural theory
2. Compare the three theories you have studied in this unit .

#### **4.0 CONCLUSION**

In this unit, you have studied theories of information literacy, their individual history, focus, research outcomes etc.

#### **5.0 SUMMARY**

From the unit you have seen where the theories of information literacy can be applied.

#### **6.0 TUTOR-MARKED ASSIGNMENT**

#### **7.0 REFERENCES/FURTHER READING**

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## **UNIT 2 INFORMATION LITERACY MODELS**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Kuhlthau's ISP Information Literacy Model
  - 3.2 Stripling and Pitts Thinking Frame Literacy Model.
  - 3.3 The Big6 Information Literacy Model
  - 3.4 Similarities and Differences between B<sup>6</sup> and Reacts
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

### **1.0 INTRODUCTION**

In the first unit, you had learnt the theories of information literacy. This unit will introduce you to the models of information literacy. As a librarian, you need to equip yourself with these theories and models because they serve as a guide in the teaching and learning of information literacy during library orientation programme when planning an information literacy programme for your community or as a course in the university and other levels of education.

### **2.0 OBJECTIVES**

By the end of this unit, you will be able to:

- explain the models of information literacy
- itemise the similarities and differences in the different models.

### **3.0 MAIN CONTENT**

#### **3.1 Kuhlthau's ISP Information Literacy Model**

Kuhlthau developed a six-stage model of information search process namely: Task initiation, Topic selection, Pro-focus exploration, Focus formation, Information collection, Search closure/presentation. She also identified students' thoughts, feelings, actions and strategies for every task.

**Stage 1 -- Task Initiation**

Task	Thoughts	Feelings	Actions	Strategies
To prepare for the decision of selecting a topic	<b>1. Contemplating</b> assignment <b>2. Comprehending</b> Task <b>3. Relating</b> prior experience and learning <b>4. Considering</b> possible topics	<b>1. Apprehension</b> at work ahead <b>2. Uncertainty</b>	<b>1. Talking</b> with others <b>2. Browsing</b> the Library	<b>1. Brainstorming</b> <b>2. Discussing</b> <b>3. Contemplating</b> possible topics <b>4. Tolerating</b> uncertainty

**Stage 2 -- Topic Selection**

Task	Thoughts	Feelings	Actions	Strategies
To decide on the topic for research	<b>1. Weighing</b> topics against criteria of personal interest, project requirements, information available, and time allotted <b>2. Predicting</b> outcome of possible choices <b>3. Choosing</b> topic with potential for success	<b>1. Confusion</b> <b>2. Sometimes</b> Anxiety <b>3. Brief</b> elation after selection <b>4. Anticipation</b> of prospective task	<b>1. Consulting</b> with informal mediators <b>2. Making</b> preliminary search of library <b>3. Using</b> reference collection	<b>1. Discussing</b> possible topics <b>2. Predicting</b> outcome of choices <b>3. Using</b> general sources for an overview of possible topics

**Stage 3-- Pro-focus exploration**

Task	Thoughts	Feelings	Actions	Strategies
To investigate information with the intent of finding a focus	<b>1. Becoming</b> informed about a general topic <b>2. Seeking</b> focus on information on the general topic <b>3. Identifying</b> several possible focuses <b>4. Inability</b> to express precise information needed	<b>1. Confusion</b> <b>2. Doubt</b> <b>3. Sometimes</b> threat <b>4. Uncertainty</b>	<b>1. Locating</b> relevant information <b>2. Reading</b> to become informed <b>3. Taking</b> notes on facts and ideas <b>4. Making</b> bibliographic citations	<b>1. Reading</b> to learn about a topic <b>2. Tolerating</b> inconsistency and incompatibility of information encountered <b>3. Intentionally</b> seeking possible focuses <b>4. Listing</b> descriptors

**Stage 4 -- Focus formation**

Task	Thoughts	Feelings	Actions	Strategies
To formulate a focus from the information encountered	<b>1.Predicting</b> outcome of possible foci <b>2.Using</b> criteria of personal interest, requirements of an assignment, availability of materials, and time allotted <b>2.Identifying</b> ideas in information from which to formulate a focus <b>3.Sometimes</b> characterized by a sudden moment of insight	<b>1.Optimism</b> <b>2.Confidence</b> in the ability to complete a task	<b>1.Reading</b> notes for themes	<b>1.Making</b> a survey of notes <b>2.Listing</b> possible foci <b>3.Choosing</b> a particular focus while discarding others, or <b>4.Combining</b> several themes to form one focus

**Stage 5 -- Information collection**

Task	Thoughts	Feelings	Actions	Strategies
To gather the information that defines extends and supports the focus	<b>1 Seeking</b> information to support focus <b>2. Defining</b> and extending focus through information <b>3. Gathering</b> pertinent information <b>4. Organizing</b> information in notes	<b>1. Realization</b> of extensive work to be done <b>2. Confidence</b> in the ability to complete a task <b>3. Increased</b> interest	<b>1. Using</b> library collect pertinent information <b>2. Requesting</b> specific sources from librarian <b>3. Taking</b> detailed notes with bibliographic citations	<b>1. Using</b> descriptors to search out pertinent information <b>2. Making</b> comprehensive search of various types of materials, i.e., reference, periodicals, nonfiction, and biography <b>3. Using</b> indexes

				<b>4.Requesting assistance of the librarian</b>
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### Stage 6 -- Search closure

Task	Thoughts	Feelings	Actions	Strategies
To conclude the search for information	<b>1.Identifying</b> need for any additional information <b>2.Considerin</b> g time limit <b>3.Diminishin</b> g relevance <b>4.Increasing</b> redundancy <b>5.Exhausting</b> resources	<b>1.Sense</b> of relief <b>2.Sometimes</b> satisfaction <b>3.Sometimes</b> disappointment	<b>1.Recheckin</b> g sources for information initially overlooked <b>2.Confirmi</b> ng information and bibliographi c citations	<b>1.Returnin</b> g to the library to make summary search <b>2.Keeping</b> books until completion of writing to recheck the informatio n

### The Implication of Kuhlthau's ISP Information Literacy Model

Kuhlthau's ISP Information Literacy model was ground-breaking in its emphasis on the interrelationship of cognitive, affective and physical dimensions of information seeking and how the search process often causes anxiety and uncertainty. It is therefore a useful model for explaining students' information behaviour even in a digital environment (Branch 2003).

Furthermore, the model is instructive when designing user-centred information services and systems. Its consecutive stages can form the basis for timed interventions to support users throughout the progress of a project. It is also useful when applied to intervene with students in inquiry projects. If students are aware that increased frustration and anxiety is to be expected mid-way through the construction process they become less discouraged when it happens (Kracker 2002). Teachers and librarians who guide students through inquiry projects can emphasize this for students and be ready to intervene in helpful ways. Inherent and crucial to a successful Guided Inquiry project is a holistic view of students' experience in the search process. In addition to cognitive processes, there are motivational and affective dimensions. Guidance and instruction can emphasise these attributes of the learning experience at each stage in the process.

### 3.2 Stripling and Pitts Thinking Frame Literacy Model

Barbara Stripling and Judy Pitts in 1988 emphasised the need for high-level thinking in the research process for information skills. They came up with what was known as REACTS taxonomy, which stands for the following:

**R--- Recalling**

**E--- Explaining**

**A--- Analysing**

**C--- Challenging**

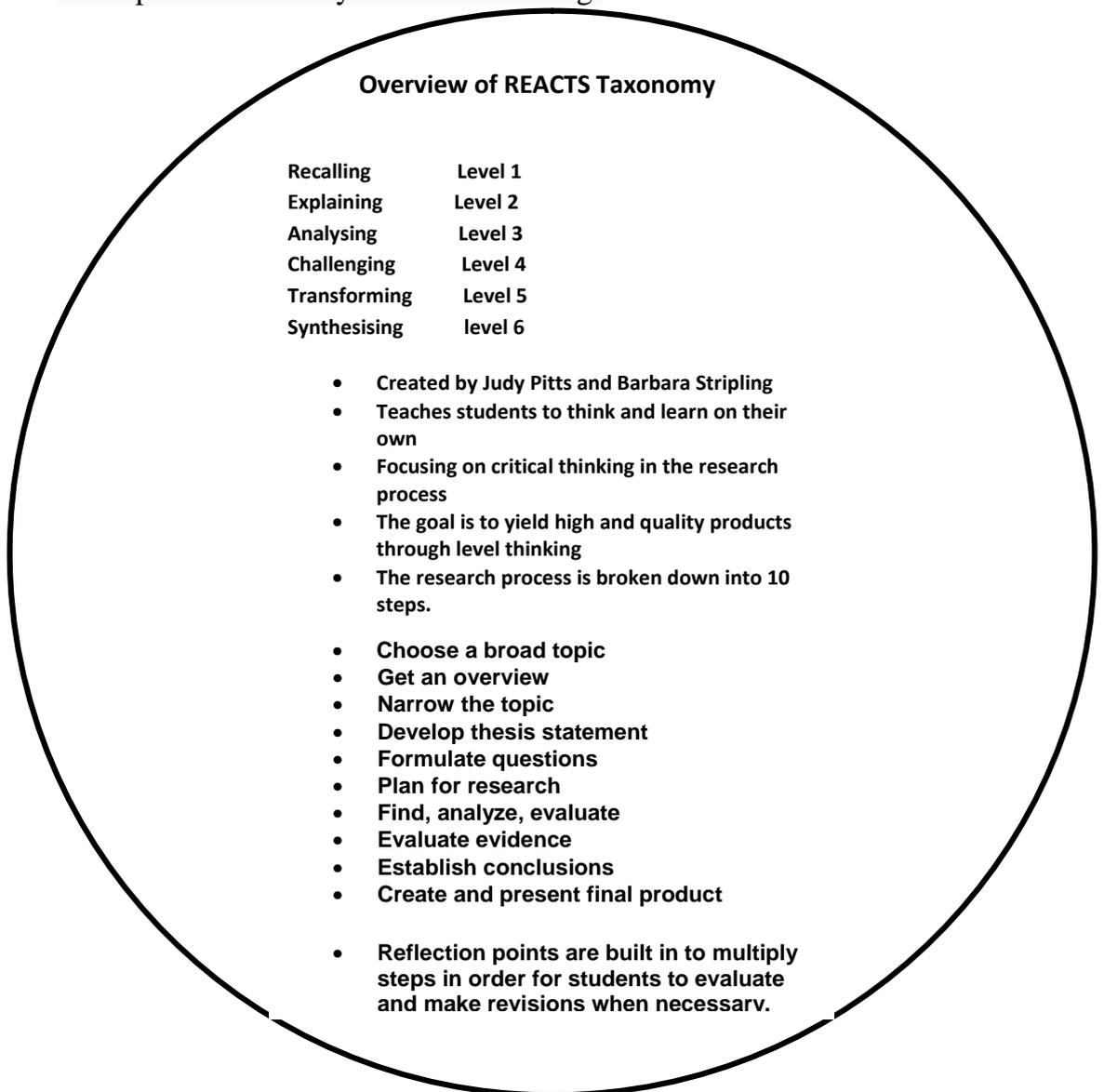
**T--- Transforming**

**S--- Synthesising**

They believed that students, who research at a low level, will most likely generally react at a low level. Stripling and Pitts designed a 10 step research process as follows:

1. Choose a broad topic
2. Get an overview
3. Narrow the topic
4. Develop a thesis statement
5. Formulate questions
6. Plan for research
7. Find, analyze, evaluate
8. Evaluate evidence
9. Establish conclusions
10. Create and present the final product

**The purpose of the 10 step research process is for students to focus on higher-level thinking that will result in higher quality products. Students were also encouraged to have reflective questions for the steps in the process to catalyse critical thinking.**



completed. For example, they can ask and answer questions like” If I could change my final product what would I do?” What new questions can be generated from my assessment product? Where should my learning go from here?

### **3.3 The Big 6 Information Literacy Model**

The Big6 Literacy Model developed by Michael B. Eisenberg and Robert Berkowitz is one of the best. It has been adopted by many schools. The model adopted an information problem-solving approach to learning. They acknowledged that Technology is integral to the information problem-solving process and such offered an integrated

view of the computer and related technology skills within the model. They identified the Big six skills approach to Library and Information Skills instruction as follows:

1. Task definition
2. Information seeking skills
3. Location and Access
4. Use of information
5. Synthesis
6. Evaluation

### **Task definition**

At this first stage, you may need to define your task until it becomes vivid. You may also need to identify the information need. There are questions you may need to ask yourself that can help make your task easier, for example:

- What does my teacher expect me to do?
- Do I understand what I need to do?
- What are the questions I need to answer?
- What do I need to know about the topic?

### **Information Seeking Skills/Strategies**

At this stage, you need to employ your skills in identifying all resources that address your task and select the best out of all the resources. There are also questions that you may need to ask yourself that can help direct your course such as

- Where can you start to look for information?
- Who can I talk too to get information?
- What are the best sources to use?

### **Location and Access**

At this stage, you not only select resources but have access (digital or print format) to them and read them to find information in resources located. There may be questions in your mind as you handle this task such as:

- Where can I find these resources?
- How do I search to get to them?
- Where do I find the information in the resource?

### **Use of information**

At this stage, you peruse the resources to find information needed. Some questions that may cross your mind are:

- What type of information did I find?
- Will the information answer the questions I have?
- How do I write notes on the information?
- Is the information reliable?

### Synthesis

1. At this stage, the information is organised into a logical sequence with headings and sub-headings and ready for presentation. Some question that may cross your mind are:
  - How do I fit all the information together
  - How do I write an outline of the project?
  - How do I present the information to my teacher to answer the question?
  - Did I remember to make notes of all the sources for the bibliography?

### Evaluation

**At this stage you subject yourself to self-assessment, asking yourself the following questions:**

- Did I solve the problem?
- Did I write the project in a format that will be understood?
- Will I do anything different the next time?
- What did I learn?
- Am I pleased with the project?

At this last stage, both the process and final product are subjected to evaluation/judgement. Note that the stages are the flexible and not completely linear step-by-step process. Each stage can be revisited by students. There are other Models such as **Pathways to knowledge TM Model** (Pappas and Tepe). This model was developed by Marjorie Pappas and Ann Tepe in 1997. It was designed to be used both as an information, literacy skills model for students searching for information and as a broader outline for teachers and school library media specialists developing a plan to integrate information literacy into the Curriculum. This model has 6 steps:

1. Appreciation and Enjoyment
2. Pre-research
3. Search
4. Interpretation
5. Communication
6. Evaluation.

This model emphasized the initial actions required to make the overall information-seeking experience a success. For instance, it stressed the importance of students understanding and appreciating the reason for the assignment and the necessity of conducting some pre-search activities before the search is conducted.

The Infohio DIALOGUE is another model of information literacy developed by INFOhio state-wide library automation and information

network for Ohio's K – 12 Schools in 1998. The DIALOGUE Model consists of the following components:

1. Define
2. Initiate
3. Assess
4. Locate
5. Organise
6. Guide
7. Use
8. Evaluate

INFOhio provides access to the DIALOGUE model on its Website.

### **3.4 Similarities and Differences between B<sup>6</sup> and Reacts**

#### **Similarities**

1. Both models could be applied at any level of education with modifications.
2. In both models, learners can work between steps i.e they can revisit steps.
3. In both models, learners determine how they go about getting their information for their research.
4. These two models have inbuilt assessment/evaluation.

#### **Differences**

1. In Reacts you are required to make a thesis statement while this is not needed in B<sup>6</sup>
2. In React only the product is evaluated but in B<sup>6</sup> both the process and product/presentation are evaluated.
3. In React questions are formulated, unlike B<sup>6</sup> where you've need to list the information you need and not in question form.
4. Reacts demands that learners employ higher-level thinking skills.
5. Big 6 gives room for teachers to determine a research topic.
6. Reacts is learner-centred but B<sup>6</sup> require learners to collaborate more with teachers.

### 3.4 A Comparison of the Kulthan's, Stripling and Big<sup>6</sup> Information Literacy Models

<p><b>Kulthau (Guided Inquiry)</b>  <b>Created by: Dr Carol Kuhlthau</b>  <b>Dr Ross Todd</b></p>	<p><b>Stripling (REACTS)</b>  <b>Barbara Stripling</b>  <b>Judy Pitts</b></p>	<p><b>Mike Eisenberg BerkowHz</b></p>
<p><b>Focus:</b> Constructivist Approach  to learning:  Based on the information search process.  Engages learners to construct.</p>	<p>Research Process Model:  Focused on critical thinking in the research process.</p>	<p>Information problem-solving model:  Information literacy curriculum  Focus on process as well as content.</p>
<p><b>Stages/Steps: <u>7 Steps</u></b>  Initiation  Selection  Exploration  Formulation  Collection  Presentation  Assessment</p>	<p><b><u>10 Steps</u></b>  Choose a broad topic  Get an overview  Narrow the topic  Develop a thesis statement  Formulate questions  Plan for research  Find, analyse, evaluate  Evaluate evidence  Establish conclusions  Create and present the final product,</p>	<p><b><u>6 Main Steps</u></b>  Each has 2 sub-stages  Task definition  Information seeking strategy  Location and Access  Use of Information  Synthesis  Evaluation.</p>
<p><b>Audience:</b> Early elementary</p>	<p>All students</p>	<p>Kindergarten-Grade 12</p>
<p><b>Intent:</b>  Planned instruction by a team of School Librarians and teachers.  Guide students through curriculum-based inquiry units.  Leading to students independent Learning.</p>	<p>Based on the belief that if students spend time on higher levels of thinking during their research, the final product will reflect higher levels of learning</p>	<p>Intended to foster the acquisition of research, problem-solving and metacognitive skills through cooperation of both school library media specialists and classroom teachers.</p>

	and synthesis.	
<p><b>Highlights:</b></p> <ul style="list-style-type: none"> <li>• Emphasis on meaningful, authentic activities, Students have a choice over questions to answer and how to present a new understanding. Continual reflection and assessment throughout the project. Opportunities to incorporate web 2.0 tools.</li> </ul>	<p>Ability to go back and forth between various stages. Opportunities for students to reflect on learning and process at each step. Students choose their own questions. Students continue to question, explore, and investigate throughout the 10 steps.</p>	<p>Reflection on how the task has been completed. Teachers typically determine information to be researched. Teachers typically determine how new information is presented (synthesized). Opportunities to incorporate web 2.0 tools</p>

#### 4.0 CONCLUSION

As a student, you should try to use these models in your academic pursuit, especially in your research.

#### 5.0 SUMMARY

In this unit, you learnt the different information literacy models with their similarities and differences.

#### 6.0 TUTOR-MARKED ASSIGNMENT

1. Explain the Implication of Kuhlthau's ISP Information Literacy Model.
2. Discuss the Similarities and Differences Between B<sup>6</sup> And React.s

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## **MODULE 3      INFORMATION LITERACY SKILLS**

Individuals and cooperate organizations need information for different purposes. The purpose/ need determine your sources of information and there are various sources of information. You need skills to be able to access and use these sources. This module will be addressing all of these issues.

Unit 1	Information Needs and Wants/Desires
Unit 2	Introduction to Information Sources
Unit 3	Information Access Tools and Search Strategies
Unit 4	Internet as Information Provider

### **UNIT 1      INFORMATION NEEDS AND WANTS/DESIRE**

#### **CONTENTS**

1.0	Introduction
2.0	Objectives
3.0	Main Content
	3.1 Information Needs and Wants/Desires
	3.2 Information Needs of Library Users and Librarians.
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked Assignment
7.0	References/Further Reading

#### **1.0 INTRODUCTION**

For you to obtain timely, relevant and quality information for your study or research work, you must identify your specific information needs, wants and desires. In other words you have to understand exactly what kind of information you will need to carry on with your work.

#### **2.0 OBJECTIVES**

By the end of this unit, you will be able to:

explain information needs/ wants and desires.

### **3.0 MAIN CONTENT**

#### **3.1 Information Needs and Wants/Desires**

Librarians have always been concerned with providing resources for teaching, learning, research as libraries of all kinds endeavor to provide information and services to meet the information needs of their users. The need for information is a concept that resounds with everyone as we all need information in every aspect of life irrespective of the fact that it might be personal, professional or social. There are no doubts that librarians or information professionals have been characterized by information overload. This is however attributed mainly to the advancement in information technology which has enabled publishing as never witnessed before. Haber (2011) notes that providing books used to be a standalone responsibility for libraries, nonetheless, this has evolved with the digital age to meet the changing needs of their users. Currently, librarians provide technology oriented services such as electronic resources management, electronic reservation services etc.

#### **3.2 Information Needs of Library Users and Librarians**

Library users vary depending on the type of library. University libraries limit their services to students and staff within the university community where they are situated. Public libraries provide for a wide range of library users which includes students, researchers, professionals even artisans. Librarians irrespective of the library type, pay attention to the information needs of their users. Librarians make numerous attempts to understand the information needs of their users mainly through observation and research. All libraries have specific information needs. For example special libraries need information which centers on professions while public libraries need information that would revolve around educational programmes, health care, crime prevention and career guidance.

Information needs of librarians can be traced to the information needs of their users and the demand of new technologies. Hashim and Mokhtar (2012) highlighted major professional and personal competencies required for the technological era as:

- Expert knowledge of the content of information resources which includes the ability to critically evaluate and filter them.
- Specialised subject knowledge appropriate to the business of the institutions.
- Using appropriate information technology to acquire, organise and disseminate information.

- Assessing information needs and designing value-added information services and products to meet identified needs.
- Providing instruction and support for library and information service users.
- Evaluating the outcomes of information use and conducting research related to the solution of information management.

#### **4.0 CONCLUSION**

In this unit, you have learnt librarians like any other professional group need the information to succeed in their personal as well as professional life. Though for many librarians, information needs are dictated by users' needs.

#### **5.0 SUMMARY**

What can you understand the meaning of information needs? The information needs of library users and Librarians.

#### **6.0 TUTOR-MARKED ASSIGNMENT**

Explain the term information needs of library users, librarians.

#### **7.0 REFERENCES/FURTHER READING**

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## **UNIT 2 INTRODUCTION TO INFORMATION SOURCES**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Introduction to Information Sources
  - 3.2 Categories of Information Sources
  - 3.3 Information organisation
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

### **1.0 INTRODUCTION**

For you to obtain timely, relevant and quality information for your study or research work, you need to know the numerous sources of information available. This unit is expected to deepen your knowledge of sources of information irrespective of the formats. The unit presents the definition, types, formats, and categories of information sources.

### **2.0 OBJECTIVES**

By the end of this unit, you will be able to:

- define information sources
- describe the types of information sources
- differentiate between the formats of the Information Sources.

### **3.0 MAIN CONTENT**

#### **3.1 Information Sources**

As an information professional, you will be dealing with data. The library users, faculty staff and the university community would need information from you and for you to get the information required you need to have materials or where you can get an accurate answer to their numerous queries. These materials you consulted are referred to as the information source. Information sources are the various means by which information is recorded for use by an individual or an organization. It is how a person is informed about something or knowledge is availed to someone, a group of people or an organization. Information sources can be observations, people, speeches, documents,

pictures, organizations. Information sources can be in print, non-print and electronic media or format.

### **Types of Information Sources**

Information can come from practically anywhere: it could be from personal experiences, books, articles, expert opinions, encyclopedias and the internet. The type of information needed will change depending on its application. Individuals generate information daily as they go about their normal activities. In academic institutions, staff and students consult various sources of information. The choice of the source to be consulted is usually determined by the type of information sought. The three types of information sources are:

- Primary Sources
- Secondary Sources
- Tertiary Sources.

### **Primary sources**

Primary sources are original materials on which other research is based. This is the information before it has been investigated, interpreted, commented upon, spun or repackaged. They are usually the first formal appearance of results in physical, print or electronic format. They represent original thinking, unedited, firsthand, access to words, images, or objects by persons directly involved in an activity or event or speaking for a group.

### **Examples include:**

- Artifacts (e.g. coins, plant specimens, fossils, furniture, tools, clothing, all from the time under study)
- Audio recordings (e.g. radio programs)
- Personal Diaries
- Internet communications on email
- Interviews (e.g., oral histories, telephone, e-mail, postal mail)
- Journal articles published in peer-reviewed publications
- Letters
- Newspaper articles written at the time
- Original Documents (i.e. birth certificate, will, marriage license, trial transcript)

### **Secondary sources**

Secondary sources are less easily defined than primary sources. Generally, they are accounts written after the fact with the benefit of hindsight. They are interpretations and evaluations of primary sources written significantly after events by parties not directly involved but who have special expertise. They may provide historical context or critical perspectives. Secondary sources are thus not evidence, but rather

a commentary on and discussion of evidence. However, what some define as a secondary source, others define as a tertiary source.

**Examples include:**

- Bibliographies (also considered tertiary)
- Biographical works
- Commentaries, criticisms
- Dictionaries, Encyclopedias (also considered tertiary)
- Textbooks (also considered tertiary)
- Web site/ internet (also considered primary)

**Tertiary sources**

Tertiary sources consist of information which is a refinement and collection of both the primary and secondary sources. They are twice removed from the source and their main purpose is to list, summarize or simply repackage ideas or other information.

**Examples:**

- Almanacs
- Bibliographies (also considered secondary)
- Dictionaries and Encyclopedias (also considered secondary)
- Directories
- Guidebooks
- Indexes, abstracts, bibliographies used to locate primary and secondary sources
- Manuals
- Textbooks (also considered secondary)

### 3.2 Categories of Information Sources

**Books**

	INFORMATION	USE	EXAMPLES
	Books cover virtually any topic, fact or fiction. For a research purposes, you will probably be looking for books that synthesize all the information on one topic to support a particular argument	when looking for lots of information on a topic to put your topic in context with other important issues to find historical information	

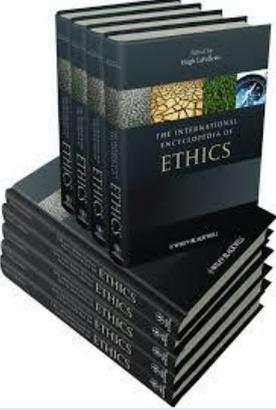
	<p>thesis. Libraries organize to and store their book collections on shelves called "stacks."</p>	<p>to find summaries of research to support an argument</p>	
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**Academic Journals**

TYPE	INFORMATION	USE	EXAMPLES
	<p>A journal is a collection of articles usually written by scholars in an academic or professional field. An editorial board reviews articles to decide whether they should be accepted. Articles in journals can cover very specific topics or narrow fields of research.</p>	<p>when doing scholarly research to find out what has been studied on your topic to find bibliographies that point to other relevant research</p>	

**Encyclopedias**

TYPE	INFORMATION	USE	EXAMPLES
	<p>Encyclopedias are collections of short, factual entries often written by different contributors who are knowledgeable about the topic.</p>	<p>when looking for background information on a topic when trying to find key ideas, important dates or</p>	

	<p>There are two types of encyclopedias: general and subject. General encyclopedias provide concise overviews on a wide variety of topics. Subject encyclopedias contain in-depth entries focusing on one field of study</p>	<p>concepts</p>	
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### Databases

TYPE	INFORMATION	USE	EXAMPLES
	<p>A database contains citations of articles in magazines, journals, and newspapers. They may also contain citations to podcasts, blogs, videos, and other media types. Some databases contain abstracts or summaries of the articles, while other databases contain complete, full-text articles.</p>	<p>when you want to find articles on your topic in magazines, journals or newspapers</p>	<p><i>EBSCOhost</i> <i>Sabinet</i> <i>Emerald</i> <i>Science Direct</i> <i>Jstor</i></p>

### Magazines

TYPE	INFORMATION	USE	EXAMPLES
	<p>A magazine is a collection of articles and images about diverse topics of popular interest</p>	<p>to find information or opinions about popular culture to find up-to-</p>	<p><i>Drum</i> <i>You</i> <i>Time</i></p>

	<p>and current events. Usually, these articles are written by journalists or scholars and are geared toward the average adult. Magazines may cover very "serious" material, but to find consistent scholarly information, you should use journals.</p>	<p>date information about current events to find general articles for people who are not necessarily specialists about the topic</p>	<p><i>National Geographic</i></p>
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**Newspapers**

TYPE	INFORMATION	USE	EXAMPLES
	<p>A newspaper is a collection of articles about current events usually published daily. Since there is at least one in every city, it is a great source of local information.</p>	<p>to find current information about international, national and local events to find editorials, commentaries, expert or popular opinions</p>	<p><i>Punch</i> <i>Daily Times</i> <i>Guardian</i> <i>City people</i></p>

**Library Catalog**

TYPE	INFORMATION	USE	EXAMPLES
	<p>A library catalogue is an organized and searchable collection of records of every item in a library and can be found on the library home page. The catalogue will</p>	<p>to find out what items the library owns on your topic to find where a specific item is located in the library</p>	

	point you to the location of a particular source, or group of sources, that the library owns on your topic.		
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### Internet

TYPE	INFORMATION	USE	EXAMPLES
	<p>The Web allows you to access most types of information on the Internet through a browser. One of the main features of the Web is the ability to quickly link to other related information.</p> <p>The Web contains information beyond plain text, including sounds, images, and video.</p> <p>The important thing to do when using the information on the Internet is to know how to evaluate it!</p>	<p>to find current information to find information about companies to find information from all levels of government - federal to local to find both expert and popular opinions to find information about hobbies and personal interests</p>	<p><a href="http://www.ufh.ac.za">www.ufh.ac.za</a></p> <p><a href="http://www.google.co.za">www.google.co.za</a></p> <p><a href="http://www.education.gov.za">www.education.gov.za</a></p>

Other information sources include:

### Bibliographies

These are publications that consist of a list of books, articles and other works on a particular topic. Sometimes bibliographies are annotated, in

other words, they include brief abstracts summarizing the important features of the works.

### **Abstracts**

An abstract is a brief synopsis or summary of the most important points that the author makes in the paper. It is a highly condensed version of the paper itself. After reading the abstract, you would know the main points that the author(s) have to make. You can then evaluate the importance of the paper and then decide whether or not you wish to read the full paper. If you elect to read the full paper, further detail would be given about each of the significant topics, but no new topics of importance are introduced. But if you decide not to read the paper, that decision is based on knowledge of the paper's content. Although the abstract appears first in a paper, it is generally the last part written. Only after the paper has been completed can the authors decide what should be in the abstract and what parts are supporting detail.

### **Indexes**

Indexes are referred to as the finding guide to the contents of particular journals. They provide the subject, author, and/or title indexing to a particular set of periodicals and give a full citation for each article. The citation includes the title of the periodical, date, volume, pages, as well as the author and title of the article. Some indexes also include abstracts

### **Theses and Dissertations**

These are research projects submitted by former students, presenting their research findings in support of their academic degrees or professional qualifications.

## **3.3 Information Organisation**

### **Why is it important to organise information?**

Before you can retrieve any information you sought for, it is necessary that you know how the information is originated and organised. The organisation is thus the key to easy retrieval of information or accessing a library's collection. When information is organized, there is easy accessibility to it. For example when you visit the library and you want to search for a book on the shelf if the books are not properly placed you will end up walking around the shelves without getting the book you are looking for because they are not organized as they should be.

### **How information is organised in the library**

The Library uses two main approaches to organise information sources namely content and format. The content is composed of the subject and the characteristics of information. Format refers to the medium used to

present or store information. Therefore materials will be located in different physical locations based on subject or physical format type.

## Organisation by Content

### Subject

#### Library of Congress

Libraries use various classification systems to organize their materials by subject on the shelves within the library stack rooms. Every book in the library has a specific label with a call number that is unique to that book. This allows library users to browse the shelves and find similar books grouped by subject. The National Open University of Nigeria Library (**NOUN**) uses the Library of Congress Classification System to organize its collection by subject. The Library of Congress (LC) was constructed when Putnam Herbert was the Librarian of the United States of America Congress in 1897 and the congress was the law-making body of the United States of America. The format used in the Library of Congress was the one Thomas Jefferson used in classifying his library because the initial library of congress was destroyed during the colonial war of 1815. The library of congress has **21** main classes. It uses alphabets for the main classes. For expansion, it can use 2 letters of the alphabets to form a class but the **21** main classes are one alphabet each. The Library of Congress also uses numerical. It can have 1-4 digits to form a subject. It also uses decimals for expansion. In other words, it is **alphanumeric** in representing a subject. The 21 main classes are as follows:

- A- Generalia(General Works)
- B- Philosophy, Psychology and Religion
- C- Auxiliary Science of History
- D- History: General and old world (eg Athens)
- E- America (General History of America)
- F- Limited States (Local History of America)
- G- Geography, Anthropology, Recreation
- H- Social Science
- J- Political Science
- K- Law
- L- Education
- M- Music
- N- Fine Arts
- P- Language and Literature
- Q- Science
- R- Medicine

- S- Agriculture
- T- Technology
- U- Military Science
- V- Naval Science
- Z- Bibliography and Library Science

Example: HG 1385 THO where **HG** is a general subject (Commerce)**1385** is a specific subject (WTO) **THO** is an author (Thomas)

### **Dewey decimal classification**

Dewey decimal classification is majorly used in public libraries. It has not as accommodative/ expansive as the library of congress classification scheme. Academic libraries use more of the library of congress. Dewey decimal classification has **4** volume tools for classification.

**Vol.1 = Tables**

**Vol. 2= Schedules (has classification symbol of 000-500)**

**Vol. 3= Schedules (has classification symbol of 600-900)**

**Vol. 4= Index.**

Dewey Decimal Classification (DDC) uses **SEARS** lists of subject heading which is to select the subject heading of the material you are classifying.

Forms Subdivision of DDC

000-Generalities

100- Philosophy and Psychology

200- Religion

300- Social Science

400- Language

500- Natural Science and Mathematics

600- Technology (Applied Science)

700- The arts

800- Literature and Rhetoric

900- Geography and History

### **Elizabeth Moys Classification Scheme (Moys )**

The Moys Classification Scheme is a system of library classification for legal materials. It was designed by Betty Moys and first published in 1968. It is used primarily in law libraries in many common law jurisdictions such as Canada, Australia, New Zealand, and the United Kingdom. The Moys system is designed to fit into a library that utilizes the Library of Congress Classification (LCC). The primary reason for this is that LCC had not fully developed the K class (the class for Law)

at the time when the Moys system was developed. Besides, LCC is the main classification system used in academic libraries. This commonality is the rationale behind adopting the same notation style used in the LCC Class K. The subclasses and enumeration are very different in the two systems. Though, as with LCC, a set of numbers follows the class letters to indicate specific subject areas (however there is notably less use of decimal points in the Moys system than in LCC).

### **Basic Structure of the Moys Classification Scheme**

#### **Basic General Classes**

- K** - Journals and reference books
- KA** – Jurisprudence
- KB** - General and comparative law
- KC** - International law
- KD** - Religious legal systems
- KE** - Ancient and medieval law
- KF-KN** - Common law
- KF** - British Isles
- KG** - Canada, US, West Indies
- KH** - Australia, New Zealand
- KL** - General
- KM** - Public law
- KN** - Private law
- KP** - Preferred jurisdiction (Own country)
- KR** - Africa
- KS** - Latin America
- KT** - Asia and Pacific
- KV** - Europe
- KW** - European Community Law (alternative)
- KZ** - Non-legal subjects

#### **Universal Decimal Classification (UDC)**

Universal Decimal Classification (UDC) owes its origin to the Dewey Decimal Classification (DDC). This classification scheme is widely used in French-speaking countries of North Africa, in Spain and Latin America and throughout Eastern Europe. In the English-speaking world, it is used by special libraries and most especially in those with a strong emphasis on technological interests.

There are many similarities between DDC and UDC, for instance, the ten (10) main classes of DDC are retained in UDC. However, class **4** (language class) was merged with class **8** (Literature class) in UDC. Example of UDC notations

- 903, Prehistories, Antiquities
- 903'12 Hunting and Fishing cultures

- 903'13 Primitive Farming cultures
- 903'14 Pastoral cultures
- 903'15 Normadie cultures
- 903'16 Advanced Farming cultures
- 903'18 Town, city cultures (Civilisation)

### **Bliss Classification**

Bliss Classification is also called Bibliographic classification (BC). It was devised by Henry Evelyn Bliss in 1935. The system is used most at length in British libraries. It consists of **35** main classes, consisting of **9** numerical and **26** alphabetical classes. It has a notation system that utilizes upper case and lowercase Roman letters; with Arabic numerals for common subdivisions. Each main class and each subclass is fully faceted. The outline of bliss classification is as follows:

### **Generalia, phenomena, knowledge, information science and Technology**

- A/AL Philosophy & Logic, 1991
- AM/AX Mathematics, Probability, Statistics, 1993
- AY General Science, 1999
- B Physics, 1999
- C Chemistry, Chemical Engineering 2000
- D Space & Earth Sciences
  - Astronomy
  - Geology
  - Geography
- E/GQ Biological Sciences
  - Biology
  - Biochemistry
  - Genetics
  - Virology
  - F Botany
  - G Zoology
  - GR Agriculture
  - GU Veterinary Science
  - GY Ecology
- H Physical Anthropology, Human Biology, Health Sciences, 1980
- I Psychology & Psychiatry 1978
- J Education 1990
- K Society (includes Social Sciences, Sociology & Social Anthropology)
- L/O History (includes Archaeology, Biography and Travel)
- P Religion, Occult, Moral and Ethics. 1977
- Q Social Welfare & Criminology. Rev.ed.1994
- R Politics & Public Administration. 1996
- S Law, 1996
- T Economics & Management of Economic Enterprises. 1987

U/V Technology, Engineering. 2000

W Recreation, Arts, Music

X/Y Language, Literature

### **Colon classification**

The Colon Classification (CC) has a set of main classes that are divided into facets. All facets are regarded as manifestations of five fundamental categories namely:

- a. Space
- b. Energy
- c. Matter
- d. Personality

### Main classes of Colon Classification

A Generalia

U Area study

W Generalia Person Study

O 1 Information Science

1 Universe of subjects

2 Library Science

3 Book of Science

4 Journalism

5 Exhibition Technique

6 Muscology

7 Systems Research, Systemology

8 Management Sciences

A \*Z Science (natural and social)

A Natural Sciences

B \*Z Mathematical and Physical Sciences

B \*ZZ Mathematical Sciences

B Mathematics

C \*Z Physical sciences

C Physics

D \*Z Engineering and Technology

D Engineering

E \*Z Chemical Sciences

E Chemistry

F Chemical Technology

G \*Z Biological Sciences

G Biology

H \*Z Earth Sciences

H Geology

I \*Z Plant Sciences

I Botany

J \*Z Agriculture and Forestry

J Agriculture

K \*Z Animal sciences  
 K Zoology  
 L \*Z Medical Sciences  
 L Medicine  
 M Useful Arts  
 MZ Mysticism and Spiritual Experience  
 N \*Z Fine Arts and Literature  
 N Fine Arts  
 O \*Z Language and Literature  
 O Literature  
 P Linguistics  
 Q \*Z Religion and Philosophy  
 Q Religion  
 R Philosophy  
 S \*Z Behavioral science  
 S Psychology  
 T \*Z Social Sciences  
 U Geography  
 V \*Z History and Political Science  
 V History  
 W Political Science  
 X Economics (Macro-economics)  
 Y Sociology  
 Z Law

### **Organisation by format**

When information is recorded and stored, it exists in a physical form called a format. There are two (2) broad categories of format:

**Print materials:** these are information sources in paper form like books, journals and magazines, newspapers, government documents, maps and atlases. **Electronic (digital):** this is information that is recorded, stored and retrieved with the aid of information and communication technology (ICT). Such are the E-books, E-journals, Websites, databases, CD-ROMS and DVDs. Storage of digital materials is usually on a server accessible through the Internet or local server.

**Audio-visual:** These can be analogue or digital materials in specialized formats. For example, music CDs, DVDs, VHS tapes, reel-to-reel tapes, cassettes. In most libraries, materials are arranged by format, with books in one area, magazines and journals in another. When one identifies an information source, it is important to note its format. If it is digital and on the Web, one may have easier access than if it is a print source which is only available when the library is open. Within the different formats are different source types that may be located separately.

## 4.0 CONCLUSION

In this unit, you have learnt the meaning of information sources with examples.

## 5.0 SUMMARY

You have learnt the organisation of information both in content and format. You also learnt the types and categories of information sources.

## 6.0 TUTOR-MARKED ASSIGNMENT

1. (a) list the types of information sources  
(b) List the examples of each.

## 7.0 REFERENCES/FURTHER READING

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## **UNIT 3    INFORMATION ACCESS TOOLS AND SEARCH    STRATEGIES**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Access Tools and Information Retrieval
  - 3.2 Search Strategies
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

### **1.0 INTRODUCTION**

There are various access tools available for information retrieval in both print and electronic formats. These include Online Public Access Catalogue (OPACS), search engines, portals, gateways, databases, institutional repositories and library websites. The main focus of this unit is to determine how these tools aid in information access and retrieval.

### **2.0 OBJECTIVES**

By the end of this unit, you will be able to:

- define access tools
- identify various access tools
- formulate a search strategy
- retrieve accurate and relevant information based on the access tools.

### **3.0 MAIN CONTENT**

#### **3.1 Access Tools and Information Retrieval**

##### **Library Websites**

Academic library websites function mainly as gateways to sources and resources and they resemble characteristics of a portal. Being able to use these resources will help you in your studies.

### **The Library Catalogue**

The Library Catalogue is a database of all the information resources in the library. It is a general tool for locating or searching for information resources. It will help you to identify and locate books in the collection including reference sources and periodicals. The catalogue could be a paper card book or computerized catalogue often referred to as the Online Public Access Catalogue (OPAC). In most universities including NOUN, the catalogue is computerized and searchable on the Internet.

### **Online Public Access Catalogue (OPAC)**

The OPAC is an online bibliographic database of all the information resources in the library. These resources include both print and electronic. The most basic function of the OPAC is the ability to browse the entire library collection. It can be used to look for something **specific** or **general**. The default mode is the basic search function, but there is also an advanced search option. The advanced search screen allows one to conduct a multiple-term search while the basic search only offers one entry box. Multiple term searches are helpful if one is searching for something specific and one wants to be as precise as possible.

### **OPAC Search Options**

To search the database, click on Search OPAC then choose on the available search points/ access points you, the search options are: Author, Title, Keyword, Journal, ISSN/ISBN and Call Number searches

#### **(a) Keyword**

Type keyword(s) or phrase(s) and click on **Go** to search. This type of search retrieves the largest number of results because the system searches all indexes at once. **For example**, the phrase **GEOGRAPHY** will retrieve records with the words **GEOGRAPHY** in any field, and also the words in any field in the same record.

#### **(b) Author**

If one knows the author's full name, one can conduct an **Author (last name first)** search. Always enter the author's **last name, followed by the first name**. For example, if one wants to search the Online Catalog for works by Allen Wards, one would select **Author** (last name first) on the drop-down menu and type Wards Allen in the **search box**. If no matching author name is found in the catalogue, the system will provide an alphabetical listing of authors nearest the spelling entered.

**(c) Title**

Each information source has got a **title** which is also used to locate the information source using the **OPAC**. Select the **title** from the drop-down menu and enter all or part of the title into the search box.

**(d) Subject**

The **subject** refers to some form of a **controlled keyword**. Librarians do not just assign **keywords** to cover certain disciplines; they use some form of **agreed and standardised keywords or phrases** which are known as **subjects or subject headings**. Enter a **subject phrase or a subject word(s)** in any order and select a **subject** from the drop-down menu. The system will return records which include the search term(s) in the **subject headings** attached to those records. If the word(s) or phrase is not found in any subject headings, the system will return an alphabetical list of subject headings nearest the spelling entered.

**Other functions of OPAC**

- My Millennium
- Suggest a purchase
- Make a general suggestion

**Advantages of Using OPAC**

1. It is specific i.e. shows the actual location of the item
2. It shows the status of the book (is it available or not)
3. It is fast and efficient
4. It enables you to carry out simultaneous searches
5. No geographical boundaries (remote access)
6. It enables you to limit your search to a particular section of the library

**Search Engines**

A **search engine** is designed to search for information on the World Wide Web. The search results are generally presented in a list of results often referred to as search engine results pages (SERPs) or hits. The information may consist of web pages, images, information and other types of files.

**How does a search engine work?**

A search engine operates in the following order:

- Web crawling
- Indexing
- Searching

Search engines work by storing information about many web pages, which they retrieve from the internet. These pages are retrieved by a **Web crawler** (sometimes also known as a spider) an automated Web browser which follows every link on the site. The contents of each page are then analyzed to determine how it should be **indexed** (for example, words can be extracted from the titles, page content, and headings). Data about web pages are stored in an **index** database for use in later queries. The purpose of an index is to allow information to be found as quickly as possible. When a user enters a query into a search engine (typically by using keywords), the engine examines its index and provides a listing of best-matching web pages according to its criteria, usually with a summary containing the document's title and sometimes parts of the text.

**NB:** It is important to remember that when you are using a search engine, you are NOT searching the entire web as it exists at this moment. You are searching a portion of the web, captured in a fixed index created at an earlier date.

### **Popular Known Search Engines**

- Google ([www.google.com](http://www.google.com))
- Altavista ([www.altavista.com](http://www.altavista.com))
- Yahoo ([www.yahoo.com](http://www.yahoo.com))
- Ask ([www.ask.com](http://www.ask.com))
- MSN Search ([www.msn.com](http://www.msn.com) )
- Exalead ([www.exalead.com](http://www.exalead.com) )
- Gigablast ([www.gigablast.com](http://www.gigablast.com))

### **Meta Search Engines**

A Metasearch engine searches multiple search engines from a single search page. Metasearch engines enable users to enter search criteria once and access several search engines simultaneously.

Metasearch engines operate on the premise that the Web is too large for any one search engine to index it all and that more comprehensive search results can be obtained by combining the results from several search engines. This also may save the user from having to use multiple search engines separately

Metasearch engines work in various ways. With some, a single, simultaneous search retrieves results from multiple sources, usually with the duplicates removed. Others offer a separate search of multiple content sources, allowing you to select the source(s) you want for each search. Results retrieved by these engines can be highly relevant since they are usually grabbing the first items from the relevancy-ranked list of results returned by the individual search engines. Keep in mind that complex searches, such as field searches, are usually not available.

**When to use a metasearch engine**

- When you want to retrieve a relatively small number of relevant results
- When your seminar or research topic is obscure
- When you are not having luck finding what you want
- When you want the convenience of searching a variety of different content sources from one search page

**Some examples of metasearch engines**

- **DogPile** ( [www.dogpile.com](http://www.dogpile.com) )
- **Metacrawler** ( [www.matacrawler.com](http://www.matacrawler.com) )
- **Search .com** ( [www.search.com](http://www.search.com) )
- **Clusty** ( [www.clusty.com](http://www.clusty.com) )
- **Mamma** ( [www.mamma.com](http://www.mamma.com) )

**Directories**

Directories use subject headings to categorize their information, e.g. business management could be a heading. Examples of web directories are Lycos and Yahoo. Directories usually contain links (pointers) to sites that have got the information one is looking for.

**Examples:**

- Yahoo Directory ( [www.yahoo.com](http://www.yahoo.com) )
- Open Directory ( [www.dmoz.org](http://www.dmoz.org) )
- Open Science Directory ( [www.opensciencedirectory.net/](http://www.opensciencedirectory.net/) )
- Directory of Institutional Repositories ( [www.opendoar.org](http://www.opendoar.org) )
- Directory of Open Access Journals ( [www.doaj.org](http://www.doaj.org) )

**Specialist/Vertical Search Engines**

A specialist searches a specific subject, industry, topic, type of content (e.g., travel, movies, images, blogs, and live events), piece of data, geographical location, and so on. It may help to think of vertical search as a search for a particular niche. Some of this content cannot be found or is difficult to find, on general search engines. To find a vertical search engine, one can use a general search engine and try to find a search site dedicated to a particular type of content, for example, **job search**.

**When to use a specialist/vertical search engine**

- When your topic is focused on a specific topic, industry, content type, geographical location, language, etc.
- When you are having difficulty locating what you want on general, meta, or concept categorizing search engines.

## Advantages and Disadvantages of using search engines

### Advantages

1. Best Suited for complex keyword/concept searches
2. Currency of information made possible by regular addition
3. Searches can be limited to a time, fields, source type, etc
4. Currency of information, made possible by regular addition by web spiders
5. Exhaustive information can be retrieved (with a lot of patience)

### Disadvantages

1. False positives
2. Dead links/ redundant links
3. Spamming
4. Search engines vary in terms of searching techniques
5. Higher ranking of paying sites

## 3.2 Search Strategies

Search strategies are ways of using search terms in finding required information from search tools, such as search engines (Google), the library catalogue and online databases. To achieve good search results, it is necessary to use search strategies. The following are some of the most common search strategies that apply to various searching tools.

- Boolean Logic
- Parenthesis
- Phrase searching
- Truncation
- Wildcards.

### Truncation

Truncation means *to make shorter*.

After identifying all the possible relevant search terms, you must decide whether you are going to use truncation (\*,?) to extend the search strategy. Truncation may be used to restrict the search to a word stem. Example: Searching for politi\* will find information on politics, politicians, political, politically. Do not truncate too early in the word, as poli\* will also find information on police, polite, policy. Some search engines also use wildcard searching, where you can use organi\*ation to search for an organisation or organization.

- Example: Wom?n
- Information on both woman and women will be retrieved

Middle truncation is especially useful to provide for spelling variations.

Using Truncating to Expand Word Endings			
government*	promot*	technolog*	"fossil fuel*"
government	promote	technologies	"fossil fuel"
governments	promoting	technology	"fossil fuels
governmental	promoted	technological	
	promotes		

### Parentheses

Parentheses are symbols ( ) or " " put around words to show what is inside should be kept together. Example: "conceptual art" will get different results from conceptual art. Using inverted commas to indicate a phrase will get fewer and better results.

Example of parentheses using brackets

This search below does not make sense - it would find either articles about **asthma and children** or articles just about **infants**

**Asthma AND children OR infants**

To make it logical you would need to include brackets:

**Asthma AND (children OR infants)**

### Boolean operators

In electronic bibliographic databases, you can use **AND**, **OR**, and **NOT** in Subject searches, which look for matches in the title, author, subject headings, and note fields of each catalogue record. After identifying the most important concepts, it is necessary to indicate how the concepts should be linked with Boolean operators (AND, OR NOT). Various methods are used to combine the indexed terms to retrieve the desired result. The best known of these is logical operations, known as **Boolean operators**. It is also important to keep in mind that most Search Engines require that Boolean operators be typed in Capital letters

- **And** combines search terms so that each search result contains all of the terms. For example, travel and Europe find articles that contain both travel and Europe.
- **Or** combines search terms so that each search result contains at least one of the terms. For example, college or university finds results that contain either college or university.
- **Not** excludes terms so that each search result does not contain any of the terms that follow it. For example, television not cable finds results that contain television but not cable.

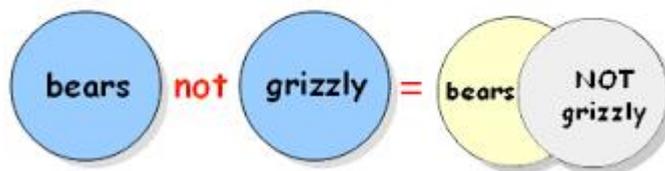
Use **AND** if you want to **NARROW** a search so that **ALL** words appear in your results



Use **OR** if you want to **EXPAND** a search so that **ANY ONE** of your words appear in your results



Use **NOT** when you want to **NARROW** a search by **EXCLUDING** a word in your results



### Phrase searching

Phrase Searching means searching for two or more words as an exact phrase. This allows you to find documents containing a particular phrase e.g. “air pollution” or “biofuel energy”.

**Phrase Searching**

**Examples:**

- “television violence”
- “violent behaviour” +television
- “television violence” –adults
- “juvenile crime”
- “adolescent crime” +television
- “adolescent violence” +television

### 3.5 Snowballing

You can try **Snowballing**: assuming you find at least one relevant journal article you can use as a basis for future searches, for example: You can even look at the list of references at the end of the article to see what related work the author has cited.

### 3.6 Nesting

- Nesting (or 'GROUPING') is a keyword search technique that keeps alike concepts together and tells a search engine or database to search those terms placed in parentheses first.
- Using Nesting in a search requires that the items in parentheses be searched first. Generally, the items in parentheses are linked by the Boolean Operator "OR."
- You can use **Nesting** when you are trying to link two or more concepts that may have many synonyms or may be represented by many different terms to obtain more comprehensive search results.
- Example: Using **(South Africa OR Africa) AND HIV/AIDS** will search for South Africa or Africa first.

#### DON'T

- Use vague keywords - it will take a very long time to process your query, and will not give you much-targeted results. Choosing a more precise topic, and appropriate keywords will retrieve a more manageable and targeted set of results
- Misspell keywords. Don't expect to find the information you need if you search for things like "technical" or "committee"
- Overlook alternative spellings. For example, if you want to find out about an American  
The organisation, this is likely to be Organization.

#### Planning your Search

Before you start to search for information, it is critical to think about what you want to investigate. Taking time to plan your search will improve the accuracy of your search and the quality of the information you will have access to. The primary aim of planning a search is to **describe a clear unambiguous question** to define the topic. The process of planning a search strategy will help clarify your thinking about your topic, and ensure that you are looking for information appropriate to your task.

#### Concept identification

Retrieval of information involves matching your information needs with the information that is available in search engines, databases etc. So when you are searching for information, you are trying to match the words you are using to describe your information need with the words in a document on the web. If the words in your query do not match the words in the document or document representation, then the document will not be retrieved or a wrong document will be retrieved. The following is a step by step process of searching:

**Step 1: Define your information need**

Firstly, look at the question you have chosen or assigned to and ascertain you fully understand it. Before you can find any information for your project or question you must understand fully what is being asked. Are there any unfamiliar terms? If you are not sure about the meaning of any word, name, place then look it up before you start. The library has a range of subject dictionaries and encyclopedias for you to use.

**Step 2: Identify the main concepts or ideas in your topic**

Once you are sure you know the meaning of the question/project specification, one of the most important steps is to work out which are the main words or phrases, known as keywords or key phrases. Keywords and key phrases indicate what the project or question is really about. They provide initial search terms for finding information. It is important to spot them all if you are going to answer questions correctly.

**Step 3: Find alternate words for your main concepts**

Identifying the major concepts is an excellent start, but there is no assurance that the database will have indexed using the words that you have identified, even if they are on exactly the topic you are interested in. Therefore, to ensure you find all the information about your topic, for each concept, you need to identify as many different words and phrases that might be used to describe it as you can. Example: **synonyms** or **related terms** to make sure you don't miss any information by ignoring words that mean the same or related things.

**Synonyms and Related Terms**

Synonyms make sure you do not omit any potentially useful articles e.g. the database may have indexed a relevant article using a different term from the one you initially thought of. Not all words have synonyms e.g. where a term is so specific it is the only term that can be used to describe the subject. However, most terms have synonyms or related concepts.

**Step Four: Creating your search statement**

1. Explain briefly these:
2. Truncation
3. Parentheses
4. Boolean operators.

**4.0 CONCLUSION**

In this unit, you have learnt the meaning of Truncation; Parentheses; Boolean operators and they can be used individually to search for information.

## 5.0 SUMMARY

You have achieved the main objective of this unit. You can now understand the meaning of information access tools, search strategies such as truncation; wildcards; Boolean operators as it involves information literacy

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- Fayose, P. O. & Dike, V. W. Not by computers alone: Multi-media in education and information handling. In *History and philosophy of science for African undergraduates*, edited by H. Lauer, 207-213. Hope Publications, 2003

Goel, N.K, Sarpal, S. S, Galhotra, A. & Abhadeep (2012). a study about library usage by undergraduate medical students in a medical college in north India. *National Journal of Community Medicine* 3(1), 89-93

Hughes, H. (2005) Actions and Reactions: Exploring International Students' Use of Online Information Resources, *Australian Academic & Research Libraries*, 36:4

Mutume, K. unit 1. Introduction to information literacy via <https://www.academia.edu> accessed 21-02-2020

## **UNIT 4 INTERNET AS INFORMATION PROVIDER**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 What is the Internet?
  - 3.2 Overview (Brief history of the Internet)
  - 3.3 Tools needed to connect to the internet?
  - 3.4 The World Wide Web (w.w.w.)
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

### **1.0 INTRODUCTION**

The internet is a huge information resource characterized by the rapid dissemination of information which leads to information overload. It is critical to developing searching skills of constructing and refining information searches in this era of information overload. In this unit, you will learn how information is represented and the principles and techniques for constructing effective and efficient searches. You will learn the history of the internet and why you need it as an information professional.

### **2.0 OBJECTIVES**

By the end of this unit, you will be able to:

- define and distinguish the Internet and the World Wide Web.
- identify applications and services available on the Internet.
- highlight the various uses of the internet in the academic environment

### **3.0 MAIN CONTENT**

#### **3.1 What is the internet?**

The internet is a global system of networked computers that allow user-to-user communication and transfer of data files from one computer to another on the network. A network of networks, today, the internet serves as a global data communications system that links millions of private, public, academic and business networks via an international telecommunications backbone that consists of various electronic and

optical networking technologies (Information Superhighway). Decentralized by design, no one owns the Internet and it has no central governing authority. It was created out of the United States Defense Department for sharing research data; this lack of centralization was intentional to make it less vulnerable to wartime or terrorist attacks.

### **3.2 Overview (Brief History of the Internet)**

The internet started in the 1960s as an information-sharing tool among government researchers. Computers in the '60s were large and immobile and to make use of information stored in any one computer, one had to either travel to the site of the computer or have magnetic computer tapes sent through the conventional postal system. On 29 October 1969, computers at Stanford and UCLA connected for the first time and became the first hosts on what would one day become the Internet. Another catalyst in the formation of the Internet was the heating up of the Cold War. The Soviet Union's launch of the Sputnik satellite spurred the U.S. Defense Department to consider ways information could still be disseminated even after a nuclear attack. This eventually led to the formation of the ARPANET (Advanced Research Projects Agency Network), the network that ultimately evolved into what we now know as the Internet. ARPANET was a great success but membership was limited to certain academic and research organizations who had contracts with the Defense Department. In response to this, other networks were created to provide information sharing. January 1, 1983, is considered the official birthday of the Internet. Before this, various computer networks did not have a standard way to communicate with each other. After the 1974 proposal to link Arpa-like networks together into a so-called "inter-network", which would have no central control and would work around a transmission control protocol, a new communications protocol was established called Transfer Control Protocol/Internetwork Protocol (TCP/IP). This allowed different kinds of computers on different networks to "talk" to each other. ARPANET and the Defense Data Network officially changed to the TCP/IP standard on January 1, 1983, hence the birth of the Internet. All networks could now be connected by a universal language.

### **3.3 Tools Needed to Connect to the Internet?**

To make use of a wide variety of services the internet provides, the following is required:

## Computer

A computer with;

- An up-to-date operating system
- A minimum of 64 Megabytes RAM. RAM is a microchip that stores data for brief periods to enable the computer to run programmes and access data.
- A minimum of 10 Megabytes free disk space. A disk is the magnetic hard drive that stores data long term. Free disk space is unused space on the hard disk that is available for downloading information from the Internet.
- As a minimum a 486 or Pentium processor. The faster the processor speed, the faster information can be downloaded.
- A sound card and speakers or headphone to enable you to access sound and multimedia files.

## Software

Besides the need to have an up-to-date operating system you also need the following software: Connection software to allow the computer to dial into the computers of the Internet Service Provider. The Internet Service Provider normally supplies this software as part of the subscription fee. Connection software must be compatible with the computer.

- A browser to access the information on the World Wide Web. If the computer is the operating system does not have a built-in browser your Internet Service Provider would give you a choice of browser software to use. The two most known browsers are Microsoft Internet Explorer and Netscape Navigator.
- Plug-ins are added software that extends a browser's capabilities. Plug-ins allows you to access multimedia files (e.g. audio or video files) without having to exit the browser to access another application to open the files.

### 3.4 The World Wide Web (WWW)

Being the most widely used service on the internet, The World Wide Web (abbreviated as www is commonly known as the Web or the "Information Superhighway"), is a system of interlinked hypertext documents accessed via the Internet. With a web browser, one can view web pages that may contain text, images, videos and other multimedia, and navigate between them via hyperlinks.

The World Wide Web consists of the **visible** or **public web** i.e. the part that is available for search engines to crawl and index, and the **invisible web** or **deep web**, in other words, that part of the web that is password protected or is protected against web crawlers and that are not indexed by search engines.

### **The Visible or Public Web**

The public web consists of electronic pages containing documents, art, music, graphics, videos, etc. These can be political, cultural, educational, informational, religious, governmental, etc. in nature. These pages normally have a graphical interface and are viewed with a web browser.

### **The Invisible Web or Deep Web**

Most of the invisible web is made up of **searchable databases** that can be searched via the web. Results are delivered in web pages generated in response to the queries that are launched. These pages are not stored anywhere - they are dynamically generated because it is cheaper to store information in databases than in pre-defined pages with all possible answers to all possible queries. Many search engines offer separate options for locating these databases.

## **SELF-ASSESSMENT EXERCISE**

- i. What is the internet?
- ii. List the tools needed to connect the internet.

## **4.0 CONCLUSION**

In this unit, you have learnt the history of the internet, what the internet is used for and tools that we need to have to be able to connect to the internet.

## **5.0 SUMMARY**

In this unit, we discussed how to define and distinguish the Internet from the World Wide Web. Also, applications and services available on the Internet were identified and the various uses of the internet in the academic environment were explained.

## **6.0 REFERENCES/FURTHER READING**

Fagbohun, M. O., Nwokocha, N. M., Itsekor, V., & Adebayo, O. (2016). Chapter 5. Responsive Library Website Design and Adoption of Federated Search Tools for Library Services in Developing Countries. In: *E-Discovery Tools and Applications in Modern Libraries*.

Fayose, P. O. & Dike, V. W. Not by computers alone: Multi-media in education and information handling. In *History and philosophy of science for African undergraduates*, edited by H. Lauer, 207-213. Hope Publications, 2003

Goel, N.K, Sarpal, S. S, Galhotra, A. & Abhadeep (2012). a study about library usage by undergraduate medical students in a medical college in north India. *National Journal of Community Medicine* 3(1), 89-93

Hughes, H. (2005) Actions and Reactions: Exploring International Students' Use of Online Information Resources, *Australian Academic & Research Libraries*, 36:4

Mutume, K. unit 1. Introduction to information literacy via <https://www.academia.edu> accessed 21-02-2020

## **MODULE 4      NEW TRENDS AND ETHICAL ISSUES IN INFORMATION ACCESS AND UTILISATION**

You must have noticed that it is easy to copy and paste digital information on the net. As much as this act has several advantages, the rate of plagiarism is on the increase as a result of this. Plagiarism is an infringement of intellectual property rights and has its implications/penalties. This module will expose you to various ways students plagiarise and ways of avoiding being a victim such as proper referencing and so on. Also, new trends in information literacy and how to develop information literacy programmes will be discussed.

Unit 1	Plagiarism
Unit 2	Referencing and Citation
Unit 3	New Trends in Information Literacy and the Application in Libraries and Information Centres
Unit 4	Development and Planning of Information Literacy Programmes

### **UNIT 1      PLAGIARISM**

#### **CONTENTS**

1.0	Introduction
2.0	Objectives
3.0	Main Content
	3.1 Plagiarism
	3.2 Types of Plagiarism
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked Assignment
7.0	References/Further Reading

#### **1.0 INTRODUCTION**

At NOUN we advance knowledge by building on the work of other people. Academic integrity means that we are honest and accurate in creating and communicating all academic products. Therefore this unit is going to focus on how best NOUN can uphold “Academic Integrity through many ways discussed below. Acknowledgement of other people’s work must be done in a way that does not leave the reader in any doubt as to whose work it is.

Academic integrity means trustworthy conduct such as not cheating on examinations and not misrepresenting information.

- Academic integrity is the pursuit of scholarly activity in an open, honest and responsible manner.
- Academic integrity is a basic guiding principle for all academic activity”

Briefly, the unit focuses on the legal and ethical aspects that surround the use of information.

## **2.0 OBJECTIVES**

By the end of this unit, you will be able to:

- to define academic integrity in terms of plagiarism, referencing and citation.
- to explain the reasons for citing and referencing information.
- to explain what constitutes plagiarism and how to avoid it.

## **3.0 MAIN CONTENT**

### **3.1 Plagiarism**

According to the Merriam-Webster Online Dictionary, to "plagiarize" means to steal and pass off (the ideas or words of another) as one's own; to use (another person's production) without crediting the source; to commit literary theft; to present as new and original an idea or product derived from an existing source. In other words, plagiarism is an act of fraud. It involves both stealing someone else's work and lying about it afterwards.

Plagiarism is the antithesis of critical thinking, in that you have eliminated any intellectual work for yourself when you are plagiarizing. But when you think critically, you have to do the tough intellectual work of formulating and clarifying your thoughts and integrating them with another point of view in a substantive fashion, as well as evaluating the credibility of sources.

### **3.2 Types of Plagiarism**

#### **Copy and paste**

- Where one copies or reproduces a sentence and fail to cite a source
- Where one copies or reproduces significant phrase and fail to acknowledge or give credit to the author

- Failure to wrap borrowed words with quotation marks and source details

**Style plagiarism**

- “When you follow a Source Article sentence- by- a sentence or paragraph-by-paragraph, it is plagiarism, even though none of your sentences are exactly like those in the source article or even in the same order. What you are copying, in this case, is the author’s reasoning style”

**Word switch**

- Changing a few words in a sentence and failing to give credit to the source
- Making use of synonyms to cover up for copied words

**Metaphor plagiarism**

- “Metaphors are used to give a clear picture or analogy that touches senses or emotions”
- Are an important part of an author’s creative style if you cannot come up with your metaphor to illustrate an important idea, then use the metaphor in the Source Article, but give the author credit for it

**Idea plagiarism**

- Failing to attribute an author for their idea
- If the author of the source article expresses a creative idea or suggests a solution to a problem, the idea or solution must be attributed to the author.

**The Potluck Paper**

- The writer tries to disguise plagiarism by copying from several different sources, tweaking the sentences to make them fit together while retaining most of the original phrasing.

**The Poor Disguise**

- Although the writer has retained the essential content of the source, he or she has altered the paper's appearance slightly by changing keywords and phrases.

**The Labour of Laziness**

- The writer takes the time to paraphrase most of the paper from other sources and make it all fit together, instead of spending the same effort on original work.

**The Self-Stealer**

- The writer "borrows" generously from his or her previous work, violating policies concerning the expectation of originality adopted by most academic institutions.

**The Forgotten Footnote**

- The writer mentions an author's name for a source but neglects to include specific information on the location of the material referenced. This often masks other forms of plagiarism by obscuring source locations.

**The Misinformer**

- The writer provides inaccurate information regarding the sources, making it impossible to find them.

**The Too-Perfect Paraphrase**

- The writer properly cites a source but neglects to put in quotation marks text that has been copied word-for-word, or close to it. Although attributing the basic ideas to the source, the writer is falsely claiming the original presentation and interpretation of the information.

**The Resourceful Citer**

- The writer properly cites all sources, paraphrasing and using quotations appropriately. The catch? The paper contains almost no original work! It is sometimes difficult to spot this form of plagiarism because it looks like any other well-researched document.

**How to avoid plagiarism**

- Always start by stating your research questions or thesis or by restating your assignment clearly and completely in your own words
- Keep accurate records of the sources you use, noting all the pertinent information about each source and whether you have quoted from it, summarized it, paraphrased it, or commented on it.
- It is advisable not to "over quote" in one's paper. Remember the paper should be made up of one's ideas and arguments
- Clearly understand how to quote, paraphrase, and summarize the information you borrow and understand how to integrate this information in your paper
- If one does not understand the source material, one must not use it in their paper
- Find out which style guide one should use and use it consistently
- Review one's final written paper looking for changes in one's writing style or thinking that might signal that one is using a borrowed source

- If one is not sure whether to cite a source, one should cite it. Good note-taking – keep track of your sources and the notes that come from each
- Keep your bibliography constantly current - add each source you find to your bibliography the very first time you use it
- Number each item in your bibliography and put the same number alongside (or before and after) each corresponding quote, summary or paraphrase in your notes.

### **SELF-ASSESSMENT EXERCISE**

Define Plagiarism.

### **4.0 CONCLUSION**

In this unit, you have learnt the ethical and legal reason why you, as an information professional must reference your assignments, research.

### **5.0 SUMMARY**

This unit looked at the economic and moral reasons for copyright law. It also discussed various ways other people's work can be plagiarised.

### **6.0 REFERENCES/FURTHER READING**

Mutume, K. Introduction to Information Literacy via <https://www.academia.edu> accessed 21-02- 20

## UNIT 2      REFERENCING AND CITATION

### CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Referencing
  - 3.2 Citation
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

### 1.0 INTRODUCTION

One of the ways of avoiding plagiarism is through proper referencing and citation whenever you use other peoples' work. It is wrong to present another person's work as your own and it is even worse when it is done unintentionally through inadequate/wrong referencing.

### 2.0 OBJECTIVES

By the end of this unit, you will be able to:

- define academic integrity in terms of referencing and citation
- explain the reasons for citing and referencing information.

### 3.0 MAIN CONTENT

#### 3.1 Referencing

##### What is Referencing?

Referencing is used to tell the reader where ideas from other sources have been taken in an assignment. It uses the ideas and research of other sources; books, journal articles, website. Ethics and the laws of copyright require authors to identify their sources citations within the body of an assignment and a reference list at the end. The purpose is to allow the reader to locate the original material and to examine it. Accuracy and consistency are very important when citing.

##### References are used to:

- Enable the reader to locate the sources you have used;
- Help support your arguments and provide your work with credibility;

- Show the scope and breadth of your research;
- Acknowledge the source(s) of an argument or idea. Failure to do so could result in a charge of plagiarism.

### 3.2 Citation

#### What is a citation?

A citation is a reference to a published work or source of information. A citation provides identifying information to enable the reader to locate the source document.

#### Why do we need to Cite Sources Used?

- In one's assignments, research papers or projects, one usually consults the works of others for several reasons:
  - To learn from them
  - To help formulate your own opinion
  - To support your ideas
  - To show what has been done previously on a topic

Whether one quotes from the sources or consult them for ideas, one needs to cite them for several reasons

- To give credit to the authors or creators of those sources or ideas
- To allow your readers to find and benefit from the exact sources you used
- To let your lectures know how you arrived at your conclusions
- To protect you from charges of plagiarism and copyright infringements

#### What to cite

- Anytime one incorporates someone else's ideas or words into their assignments or presentations, they must cite them
- If one quotes directly from a source, be sure to enter the quote using quotation marks and also provide the citation
- If one paraphrases or summarizes someone's else's work, one must provide a citation

#### Media and images

Citing does not only apply on to the printed word. If one includes an image, or video in one's paper, one's powerpoint presentation, or on a Web site, one must acknowledge the source through citation

In fact, in many cases, one will need to get permission from the creator to use it. Always read the copyright permission statements before using an image or other media item Do not assume that because it's on the Internet, one can use it without permission or citation

**What NOT to cite**

Certain information does not need to be cited. For example:

- One's work
- Common Knowledge and other factual information that is easy to confirm
- A knowledge common to one's topic and one's
- Common expressions

**How to Cite**

Use the title page, not the book cover, for the reference details. Only include the edition where it is not the first. A book with no edition statement is most commonly the first edition

**Components of a standard citation**

For one's readers to be able to find the sources used, one needs to supply the citation information.

**The basic components of a citation**

**Books:** Author (or editor), (Year) Title, Publisher, Place of publication

**Journal Articles:** Author, Year, Article Title, Journal Title, Volume No., Issue No.,  
Pages

**Web sites:** Author (or Company or Organization), web page title, URL, Date (posted or revisited) Date retrieved

**Images:** Artist name, Title of the work, Date it was created, repository (or museum or owner) City or country of origin, Dimensions of the work, Material or Medium (such as oil on canvas, marble, found objects)

- If the image is in a book you will need full book citation with the page for the image
- If it is online, you will need the web citation in addition to the image number or other identifier

**Citation styles**

Various citation styles exist. They convey the same information, only the presentation of that information differs. Whichever citation style one uses, one must be consistent in its application.

Different disciplines use different citation styles. This module discusses the most commonly used citation styles in various disciplines. Keep in mind that there are many other citation styles.

**APA Citation Style****Basic Format for books**

Author's surname, First Initial. (Year). Book title: Subtitle. (Edition) [if other than the

1st]. Place: Publisher.

### **Example of books**

#### **One Author**

Brader, T. (2006). *Knowledge management: information organization and sharing*.

Chicago: University of Chicago Press.

#### **Two Authors**

Wilson, S., & Smith, J. (1994). *Art of gardening: A look at wildflowers in Zimbabwe*.

Gweru: Mambo Press.

#### **Book article or chapter**

Joyce, U.M (1970). Tales of the wild: Stories according to Rhodes. In W.Stone (Ed.),

Wonders of the world (pp 300-306)

#### **E-Book from Ebrary**

Kjaer, P. (2007). Mediating business the expansion of business journalism. Copenhagen:

Copenhagen Business School Press [Ebrary Online Reader version].

Retrieved from

<http://www.ebrary.com>

### **Journals**

#### **Basic Format for Journal Articles**

Author's surname, First Initial. (Year). Article title. *Magazine/Journal/Newspaper Title*(in italics).

Volume number, (Issue number), Page numbers.

Ndebele, S. (1992). Women in Zimbabwe: A Case Study: *Studies in African Culture*, Magazine Article, Monthly 14(3), 61-64

White, C. (2006, April). The spirit of disobedience. *Atlantic*, 312(1871), 31-40.

Magazine Article, Weekly

Tumulty, K. (2006, April 10). Should they stay or should they go? *Time*, 167(15), 3-40.

Newspaper Article (use pp. for page numbers of newspaper articles)

Moyo, L. (2012, May 30). Spunk bling, at Kingston gigs. *Herald*, pp. C1.

Articles from Online Databases

Journal, Magazine, or Newspaper Article from an Online Database

#### **Basic Format for an Online Database Article**

Author's surname, First Initial. (Year, Month Day). Article title.

Magazine/Journal/Newspaper Title, Volume number (Issue number), Page numbers.

Retrieved from URL of database home page

**Specific Example (from Emerald database)**

Armistead, C. (2009). Knowledge management and process performance. *Journal of Knowledge management*, 3(2), 143 -157.

Retrieved from <http://www.emeraldinsight.com>

- To cite the electronic journals follow the appropriate citation format (journal, magazine, or newspaper).
- Then after the page numbers, add the following information:

1. The words “Retrieved from”
2. The URL for the homepage of the article database

**Internet sources**

Troy, S. (1980). Genocide and psychological healing. Retrieved October 20, 2010, from

Annual Psychological Review

Web site:<http://www.iowa.edu/index.html>

**MLA Citation Style.**

The MLA citation style refers to the rules and conventions established by the Modern

Languages Association for acknowledging sources used in a research paper.

**The basic format for books**

Author’s surname, First name. Title of Book. Place of Publication: Publisher, Year of Publication.

Book with one author

Chinua, Achebe. *Things fall Apart*. Lagos: Universal Press, 1972.

Book with two or three authors

Francis, P. Douglas, Bernard Jones, and David E. Smith. *Tourism: A challenge for developing countries*. New York: Harcourt, 2001.

Book with more than 3 authors

Atkins, David et al. *Feminism in the marital home*. London: Oxford University Press, 2001.

**Book by a corporate author**

Associations corporations, agencies and organizations are considered authors when there is no single author.

British Psychological Society. *Teaching psychology: Some issues*.

London: BPS, 1990.

**E-Book**

Author's Surname, First name. Title of Book. Place of Publication: Publisher, Year. Title of Database or Website. Date accessed.

Frey, Bruno S. Economics and Psychology: A Promising New Cross-Disciplinary Field.

Cambridge: MIT Press, 2007, Ebrary. Web, accessed on 28 June 2010

**Journal Article (Print)**

Author's Surname, First name. "Title of Article." Journal title Volume. Issue (Year): Pages.

**Article in a journal**

Doyle, Deirdre, ed. "The art of ballet. Lessons from the school." Modern Dance Bulletin

4.5 (1999)

JOURNAL ARTICLE (electronic):

**Basic format**

Author. "Title of the Article." Journal title. Volume. Issue (Year): Pages. Medium. Accessed Date.

Martensson, Maria. "A critical review of knowledge management as a management tool"

Journal of Knowledge Management. 4.3 (2000): 1998 -2016. Web. 28 June 2012

**Websites**

Author Surname, First name (if available). "Title of Page." Name of Site. Name of institution/organization affiliated with the site (sponsor or publisher), date (if available).Medium.

The date you accessed it.

Rose, Crystal. "How to Write Citations and Bibliographies in MLA Style (7th Edition)." Memorial University Libraries. Memorial University of Newfoundland, 12 Dec. 2011. Web. 9 Jan 2012.

**Chicago citation style****Book with one author**

Clayton, Roger. 1964. Paradise revisited. Los Angeles: Threshold Publications

**Book with two to three authors**

Collins, Geoffrey, and Walter E. Samuels, eds.1963. The collected works of Jane Austen.

Boston: Boston Press

**Journal Article – Online Version**

Polomkai, Mauri J. and Allen G. Noble. "Greenhouse Horticulture and Economic

Transition." Geographical Review 85, no. 2 (1995): 173-84.

<http://www.jstor.org.proxy.lib.sfu.ca/stable/216061>.

### **Harvard Style.**

#### **The basic format for books**

Author(s) of book - surname and initials Year of publication, Title of book - italicized,  
Edition, Publisher, Place of publication

#### **Book with one author.**

Achebe, Chinua. (1995), *Things fall apart*, Mambo Press, Gweru.

#### **Book with two or three authors**

Hilton, D. J., White, S & Peters, J. (1997) *Business Accounting*, Butterworths, London.

#### **Book with more than three authors**

Bond, WR. et al. (1996), *Management of small firms*, McGraw-Hill, Sydney

#### **Edition.**

Mustill, P.T. & Boykes, Z.T. (2001) *Women and the law*, 3rd ed, Blackwells, London.

#### **E-book**

Megill, K. A. (2005) *Corporate Memory: Records and Information Management* age, KG. Saur, Berlin, available from EIFL Ebrary e-books. [Accessed 28 June 2012]

#### **Chapter in an edited book.**

Butler, J. (1934), *The Vegetative region of Congo*, in Cesar, E. and Piano, M. (eds.) *The The economy of Congo*, 2nd ed, Garland, New York pp.231-342.

#### **Thesis.**

Ncube, T. (2000), *Children and the family*, PhD Thesis, University of Zimbabwe.

#### **Article in a journal**

Elements of the citation

Author(s) of article -surname and initials Year of publication, 'Title of an article - in single quotation marks', Journal title - italicized, volume number, issue number, page number(s)

**Journal Article – print version**

Kongle, C & Crago, S. (1999) “Pacemakers and related determinants”,  
Medical Journal  
of North America, vol. 85, no. 2, pp71-77.

**Journal article – Electronic version**

Duffy, J. (2000). “Knowledge management: to be or not to be”,  
Information Management  
Journal, Vol.34, No. 1, pp. 64- 67. Available from emerald Group of  
Publishing Limited. [Accessed 28 June 2012]

**Internet sources**

Holland (1997) Agrarian reform [online]. Bourn Mouth University.  
Available from  
<http://www.bournemouth.ac.uk> [Accessed 24 July 2001]

**SELF-ASSESSMENT EXERCISE**

- i. Define and discuss Referencing
- ii. Define and discuss Citation

**4.0 CONCLUSION**

Citation and referencing are technical and you must adhere to the rules.  
You must also be consistent with whatever referencing style you chose  
to use based on your field or the choice of your institution.

**5.0 SUMMARY**

This unit looked at the different referencing styles and how to protect  
academic integrity in terms of referencing and citation.

**6.0 REFERENCES/FURTHER READING**

Mutume, K. Unit 1. Introduction To Information Literacy via  
<https://www.academia.edu> accessed 21-02-2020

## **UNIT 3      NEW TRENDS IN INFORMATION LITERACY AND THE    APPLICATION IN LIBRARIES AND INFORMATION CENTRES**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 New trends in information literacy and application in libraries and information centres
  - 3.2 Benefits of Information Literacy Programs in Libraries and Other Information Centers
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

### **1.0 INTRODUCTION**

Briefly, the unit focuses on the new trends in information literacy and the application of it in Libraries and Information Centres.

### **2.0 OBJECTIVES**

By the end of this unit, you will be able to:

understand the trends in Information literacy and its application in libraries and other information centres.

### **3.0 MAIN CONTENT**

#### **3.1 New Trends in Information Literacy and Application in Libraries and Information Centres**

Information is today's currency of exchange in the world. It is needed by all because it is what determines the competitive edge of every library and information centres. Libraries that knows how to manage information in its custody will do better than other information centres not focused yet. Previously, information seekers depended on print resources, currently, with the emergence of advanced technologies, new avenues for information such as online databases, e-journals, weblogs, to mention but a few have opened up the changing role of libraries now though not limited to developing awareness among the academic

community regarding the digital resources and e-content sources of information.

Information literacy goes beyond the abilities to find information and also requires communication skills. Here comes the multi-skilled and an information literate - information professional, to help and guide the users to get the right type of information, at the right time, more effectively and efficiently.

Information literacy empowers people in all walks of life to seek, evaluate, use and to create information effectively to achieve their personal, social, occupational and educational goals. There are new trends in information literacy which includes skills, knowledge and behaviours that are important for an institution's success, personal performance and career development. Knowing that, *Information Literacy* comprises of the use of ICT to retrieve and disseminate information; the competencies to find and use information in information and the process of recognizing information need, finding, evaluating, and using the information to acquire knowledge, library professionals need good teaching and communication skills to teach information literacy to their user community in an academic environment.

There is a need for the library professionals to update their skills and competencies to:

- Help the students and the faculty members to locate, access and evaluate information effectively and efficiently.
- Take better decisions in day to day work.
- Contribute towards the growth & development of the institution.
- Update their knowledge and skills & optimum use of technologies.
- Get recognized for providing value-added library services.
- Understand and do their researches.
- Survive in a competitive world.

#### **Benefits of Information Literacy Programs in libraries and other information centres**

- Key to empowerment, development and happiness.
- Enhancement of critical thinking
- Synthesis of data and information into knowledge
- The motivation for self-directed learning
- Use of information ethically & legally, understanding the economic, legal & social issues around the use & access of information.

- Changes and advances in the practice of teaching and learning.
- Higher education identifies the need for more active learning.
- Appreciation for lifelong learning

### **SELF-ASSESSMENT EXERCISE**

Discuss the benefits of information literacy programs in Libraries

## **4.0 CONCLUSION**

With the new trends in information literacy, information professionals must update their skills, there must be a review of the school curriculum, teaching and learning of information literacy must be learners' centred and ICT must be incorporated.

## **5.0 SUMMARY**

In this unit, we looked at the new trends in information literacy and its application in libraries and other information centres.

## **6.0 REFERENCES/FURTHER READING**

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## **UNIT 4 DEVELOPMENT AND PLANNING OF INFORMATION LITERACY PROGRAMMES**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Ways Information Literacy can be promoted
  - 3.2 Mission, Goals, and Objectives of an Information Literacy Program
  - 3.3 Planning of an information literacy program
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

### **1.0 INTRODUCTION**

Information literacy is important for all at any level of education for life-long learning. Citizens need to be informed to function effectively in the nation. Information skills should be learnt by all to enable them to know how to use the information productively to meet their needs in various spheres of life even after leaving school. More so learning and teaching of information literacy skills become very important in the face of information explosion.

### **2.0 OBJECTIVES**

By the end of this unit, you will be able to:

- understand the ways information literacy programs can be developed and promoted
- understand the importance of advocacy for information literacy programs.

### **3.0 MAIN CONTENT**

#### **3.1 Ways Information Literacy can be Promoted**

There are various ways information literacy can be taught or promoted such as:

- (i) Lectures, Seminars, Workshops, and Conferences: This is to train literacy teachers, students and a large number of information users.

- (ii) Printed educational materials on information literacy skills, guidebooks, newsletters, promotional leaflets describing systems and databases, database user manual, library orientation manuals etc. These methods have been very effective, particularly informal teaching and learning of information literacy skills.
- (iii) Audio-visual material such as videotapes, films and audiocassettes. These multimedia resources have been very effective for individual instruction in information literacy skills. A large number of people learnt information literacy skills online by watching videos from YouTube. These videos online and in CD formats can be watched at users' convenience in terms of time and space. Users can watch these videos as many times as they wish until a particular skill is learnt.

In the planning of information literacy programmes, some best practices must be put into consideration as stipulated in the Final Report of the American Library Association Presidential Committee on Information Literacy (1989; 1998) and ACRL Framework for Information Literacy for Higher Education (2015). The ideas given in these reports can serve as a basis for developing, advancing, revitalizing, and assessing information literacy programmes. In a nutshell these reports provide a framework within which to:

- Categorise details of a given program
- Analyse how different program elements contribute to attaining excellence in information literacy
- Benchmark program status
- Implement program improvement
- Map out long-term development

### **3.2 Mission, Goals, and Objectives of an Information Literacy Program**

- The institution planning of the programme must clearly state their definition of information literacy in their mission statement. Every programme must have a mission statement.
- Goals and Objective of the programme must be clearly stated. For instance, the importance of the integration of information literacy in the school curriculum for lifelong learning and professional development must be emphasised.
- Goals and objectives must include measurable outcomes in the target audience that can serve as a basis for their evaluation.

- Goals and objectives of any information literacy programme must align with the larger stated mission, goals and objectives of the corresponding parent institution.
- Goals and objectives must also align with the general framework for information literacy in that field.
- It should reflect institutional stakeholders' contributions and benefits.
- It must be written and published as an official document.

### **3.3 Planning of an Information Literacy Program**

In planning any information literacy programmes, take note of the follows:

- Since there is already an existing document, the onus is on you to articulate and develop a mechanism to implement component(s) of the document.
- Your plan must be tied to the institution, library and ICT plan and budget
- You must survey the environment and incorporate your findings in your plan.
- You must be able to identify your target audience and be able to accommodate them all in your plan.
- Collaborate with other stakeholders from the onset.
- Establish a time frame for the systematic implementation of your plan.

#### **Administrative and Institutional Support**

- Identify groups and staff that can help to bring your plan to fruition and give them responsibilities.
- Try to understand the nature of the work of your identified groups/staff you are collaborating with.
- Make available adequate fund for needed staff, technologies and facilities.
- Apart from rewarding participants who assisted you in the implementation of your literacy programme, special recognition, appointments and support should be given to staff that have shown high degree professionalism and skills during the programme.
- Provide a format for evaluating staff performance and areas of improvement

**Program Sequencing within the curriculum for an information literacy program**

- You must appreciate and understand the complexities of skill to be acquired by a group of people, staff, and students at every level.
- For students, you must ensure that the integration of information literacy skills into their academic programme /curriculum is progressive in sophistication according to academic levels.
- Identify the specific courses for information literacy skills teaching/learning
- You can employ the support of the local government for the integration of information literacy skills into the school curriculum.
- Document all plans/programme and disseminate to all stakeholders

**The teaching of Information Literacy Skills**

- Use the set-out guide appropriate for different sectors and levels e.g ACRL Framework for Information Literacy for Higher Education
- You can use different teaching methods/approaches to improve students' engagement and comprehension. In particular, emphasize learner-centred teaching and the teaching method employed must be suitable for the instruction.
- Ensure that everyone is carried along in the learning.
- Employ the use of ICT and multimedia resources in teaching and learning.
- Your teaching should promote critical thinking, reflection, and recursive learning.

**Communication and Advocacy for an Information Literacy Program**

- Identify relevant stakeholders and reach out to them both within and outside your institution.
- Ensure that all benefits of the programme to your targeted audience/groups are well articulated.
- At every stage ensure that you get all stakeholders involved.
- Initiate information literacy workshops/programmes.
- Employ both formal and informal communication networks and media channels

**Assessment and Evaluation**

Both students' outcomes and the information literacy programme itself must be assessed.

**Student outcomes assessment**

- You must appreciate learning and teaching preferences in assessing students' outcomes.
- You must employ the various pre and post instruction outcome measures such as needs assessment, pre-tests, post-tests, portfolio assessment, oral defence, quizzes, essays, direct observation, anecdotal, and experience.
- Learners should assess themselves in form of self and peer evaluation.
- Learners creative processes and products must be assessed

**Program evaluation**

- From inception integrate assessment, institutional evaluations and regional and professional accreditation initiatives into the literacy programme.
- Ascertain how many of the goals and stated objectives were met.
- Appropriate and relevant evaluation methods depending on the purpose must be used; examples are formative, summative, short-term or longitudinal assessments.

**SELF-ASSESSMENT EXERCISE**

- i. List the Mission, Goals, and Objectives of an Information Literacy Program you have studied in this unit.
- ii. List and explain ways information literacy can be taught or promoted.

**4.0 CONCLUSION**

You have seen ways information literacy can be promoted. You are expected to promote information literacy using any of these methods such as lectures, the printing of educational materials and through the use of audio-visuals. You can combine any/all of these methods as an information professional to promote information literacy in your locality.

**5.0 SUMMARY**

In this unit, you have learnt ways of promoting information literacy, steps to take in planning information literacy programmes such as: stating of mission, goals and objectives; Soliciting for administrative and institutional support. Also, you learnt how to incorporate information literacy into the school curriculum; how to teach, communicate and evaluate information literacy programmes.

## 6.0 TUTOR-MARKED ASSIGNMENT

## 7.0 REFERENCES/FURTHER READING

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