Information Literacy

LIS 211

University of Ibadan Distance Learning Centre
Open and Distance Learning Course Series Development

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Vice-Chancellor's Message

The Distance Learning Centre is building on a solid tradition of over two decades of service in the provision of External Studies Programme and now Distance Learning Education in Nigeria and beyond. The Distance Learning mode to which we are committed is providing access to many deserving Nigerians in having access to higher education especially those who by the nature of their engagement do not have the luxury of full time education. Recently, it is contributing in no small measure to providing places for teeming Nigerian youths who for one reason or the other could not get admission into the conventional universities.

These course materials have been written by writers specially trained in ODL course delivery. The writers have made great efforts to provide up to date information, knowledge and skills in the different disciplines and ensure that the materials are user-friendly.

In addition to provision of course materials in print and e-format, a lot of Information Technology input has also gone into the deployment of course materials. Most of them can be downloaded from the DLC website and are available in audio format which you can also download into your mobile phones, IPod, MP3 among other devices to allow you listen to the audio study sessions. Some of the study session materials have been scripted and are being broadcast on the university's Diamond Radio FM 101.1, while others have been delivered and captured in audio-visual format in a classroom environment for use by our students. Detailed information on availability and access is available on the website. We will continue in our efforts to provide and review course materials for our courses.

However, for you to take advantage of these formats, you will need to improve on your I.T. skills and develop requisite distance learning Culture. It is well known that, for efficient and effective provision of Distance learning education, availability of appropriate and relevant course materials is a *sine qua non*. So also, is the availability of multiple plat form for the convenience of our students. It is in fulfilment of this, that series of course materials are being written to enable our students study at their own pace and convenience.

It is our hope that you will put these course materials to the best use.

Prof. Abel Idowu Olayinka

Vice-Chancellor

Foreword

As part of its vision of providing education for "Liberty and Development" for Nigerians and the International Community, the University of Ibadan, Distance Learning Centre has recently embarked on a vigorous repositioning agenda which aimed at embracing a holistic and all encompassing approach to the delivery of its Open Distance Learning (ODL) programmes. Thus we are committed to global best practices in distance learning provision. Apart from providing an efficient administrative and academic support for our students, we are committed to providing educational resource materials for the use of our students. We are convinced that, without an up-to-date, learner-friendly and distance learning compliant course materials, there cannot be any basis to lay claim to being a provider of distance learning education. Indeed, availability of appropriate course materials in multiple formats is the hub of any distance learning provision worldwide.

In view of the above, we are vigorously pursuing as a matter of priority, the provision of credible, learner-friendly and interactive course materials for all our courses. We commissioned the authoring of, and review of course materials to teams of experts and their outputs were subjected to rigorous peer review to ensure standard. The approach not only emphasizes cognitive knowledge, but also skills and humane values which are at the core of education, even in an ICT age.

The development of the materials which is on-going also had input from experienced editors and illustrators who have ensured that they are accurate, current and learner-friendly. They are specially written with distance learners in mind. This is very important because, distance learning involves non-residential students who can often feel isolated from the community of learners.

It is important to note that, for a distance learner to excel there is the need to source and read relevant materials apart from this course material. Therefore, adequate supplementary reading materials as well as other information sources are suggested in the course materials.

Apart from the responsibility for you to read this course material with others, you are also advised to seek assistance from your course facilitators especially academic advisors during your study even before the interactive session which is by design for revision. Your academic advisors will assist you using convenient technology including Google Hang Out, You Tube, Talk Fusion, etc. but you have to take advantage of these. It is also going to be of immense advantage if you complete assignments as at when due so as to have necessary feedbacks as a guide.

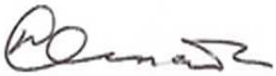
The implication of the above is that, a distance learner has a responsibility to develop requisite distance learning culture which includes diligent and disciplined

self-study, seeking available administrative and academic support and acquisition of basic information technology skills. This is why you are encouraged to develop your computer skills by availing yourself the opportunity of training that the Centre's provide and put these into use.

In conclusion, it is envisaged that the course materials would also be useful for the regular students of tertiary institutions in Nigeria who are faced with a dearth of high quality textbooks. We are therefore, delighted to present these titles to both our distance learning students and the university's regular students. We are confident that the materials will be an invaluable resource to all.

We would like to thank all our authors, reviewers and production staff for the high quality of work.

Best wishes.



Prof. Bayo Okunade

Director

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Study Session 1: The Concept and Definition of Information Literacy

Introduction

Information literacy is the ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively use that information for the issue or problem at hand.

Also it is an incorporate aspect of "skepticism, judgement, free thinking, questioning, and understanding or incorporate competencies that an informed citizen of an information society ought to possess to participate intelligently and actively in that society.

In this study session, you will be introduced to meaning of information literacy, the information society and the information literate person and the basic abilities that an information literate person must possess

Learning Outcomes for study session 1

At the end of this study session, you should be able to:

1.1 Explain meaning of information literacy

1.2 Discuss the information society and the information literate person

1.3 Highlight the basic abilities that an information literate person must possess

1.1 Meaning of Information Literacy

The term, ‘information literacy’, was coined by the president of the American Information Industry Association, **Paul Zurkowski**. This peak industry body served the interests of private, for-profit organisations concerned with the production and sale of information.

Figure 1.1:Paul Zurkowski
Source:*https://www.google.com.ng/imgres?imgurl=https%3A%2F%2Fi.ytimg.com%2Fvi%2F8DXnUvseNTs%2Fmaxresdefault.jpg&imgrefurl=*

Zurkowski first used ‘information literacy’ in a 1974 report on libraries and information science, which investigated the employment needs of the US industrial sector in a late capitalist economy and examined the issue of inadequate workforce skills **(Doyle Brunson1994).**

The report told educators and policy makers that students, and therefore the labour force, were unable to locate and use materials effectively for study and work purposes. This perception, along with the shift to electronic materials and services during the 1980s, played a key role in the development and implementation of library user education programs.

Information literacy, as a concept, has received increasing emphasis in recent times. It has to do with the ability to access, interpret, evaluate, organise, select, produce, and communicate information in and through a variety of media technologies and contexts to meet diverse learning needs and purposes.

Figure 1.2:*(Doyle Brunson1994)*

Source:*http://media.cardplayer.com/assets/000/014/171/Brunson_feature.jpg.*

Several definitions have been given to the concept of information literacy by scholars and professional associations/learned societies. **The Association of College & Research Libraries, (2005)** describes information literacy as the set of skills needed to find, retrieve, analyse, and use information. **The Canadian Association of School Libraries (2007)** describes information literacy as encompassing the ability to:

A. Recognise the need for information to solve problems and develop ideas; pose important questions; use a variety of information gathering strategies; locate relevant and appropriate information; assess information for quality, authority, accuracy and authenticity,

B. Includes the abilities to use the practical and conceptual tools of information technology to understand form, format, location and access methods, how information is situated and produced, research processes, and

C. To format and publish in textual and multimedia formats and to adapt to emerging technologies.

Oyewusi (2010) describes information literacy as the acquisition, interpretation, and dissemination of information, focussing on effective methods for locating, evaluating, using and generating information while **Izzo, Murray and O'Hallon (2005)** defines information literacy as the ability to use internet and other

electronic sources for research and knowledge building as part of information literacy.

Therefore, information literacy can be seen to encompass knowledge of one's information concerns and needs, and the ability to identify, locate, evaluate, organize and effectively create, use and communicate information to address issues or problems at hand.

It also enables individuals to participate effectively in the information society, and is part of the basic human right of lifelong learning. Information literacy empowers people in all walks of life to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals.

According to the **American Library Association (1989)** to be information literate, a person must be able to recognise when information is needed and have the ability to locate, evaluate and use effectively the information needed.

The ability to use information technologies effectively to find and manage information, and the ability to critically evaluate and ethically apply that information to solve a problem are some of the hallmarks of an information literate individual.

Other characteristics of an information literate individual include the spirit of inquiry and perseverance to find out what is necessary to get the job done. Ultimately information literate people are those who have learned how to learn. This definition closely links information literacy to lifelong and self-directed learning, **basic objectives of the National Policy on Education (Nigeria, 1981).**

The Universal Basic Education Programme (Nigeria, 2000) aims to lay the foundation for lifelong learning through the inclusion of appropriate learning to learn self-awareness, citizenship and life skills. This is reminiscent of the statement of Kulhthau 1995 cited in Akande, (2009) that the concept of information literacy encompasses lifelong learning.

Information literacy involves the knowledge and use of skills or competencies that together make for effective and appropriate use of information **(Armstrong, Boden, Town, Woolley, Webber, and Abell (2005)**.

Information literate people understand more than how to find information, they understand its limitations and the need to examine how they use information, and they understand how to manage and communicate information.

In-Text Question

Define information literacy according to The Association of College & Research Libraries, (2005)

In-Text Answer

Information literacy described as the set of skills needed to find, retrieve, analyse, and use information.

Information literacy also extends to a whole range of range of literacies, including visual literacy, media literacy, technological literacy, computer literacy, and cultural literacy among many others, each connoting the ability to derive information from that type of resources.

While all these are aspects of information literacy, the original literacy reading remains of crucial importance to the information literate person. In other words, the ability to articulate one's information need, the ability to identify, locate and access appropriate sources of information to meet the information need.

The ability to effectively use information resources, regardless of format, the ability to critically and ethically apply the information as well as the ability to determine if the information need has been adequately met is what information literacy is all about.

Information literacy forms the basis for lifelong learning and it is common to all disciplines, to all learning environments, and to all levels of education. It enables learners to master content and extend their investigations, become more self-directed, and assume greater control over their own learning. An information literate individual is able to:

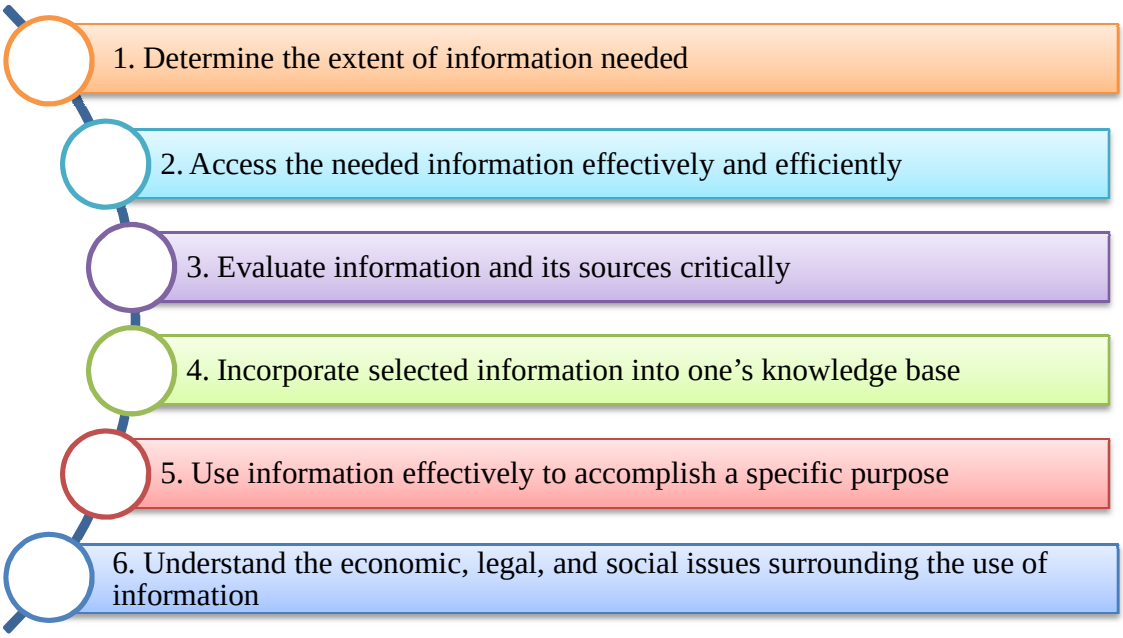

Figure 1.3: *Whatan information literate individual is able to do*

Information Literacy encompasses knowledge of one's information concerns and needs, and the ability to identify, locate, evaluate, organize and effectively create, use and communicate information to address issues or problems at hand; it is a prerequisite for participating effectively in the Information Society, and is part of the basic human right of life-long learning **(US National Commission on Library and Information Science, 2003).**

On the other hand, **Council of Australian University Librarians (2004)** describes information literacy as an understanding and set of abilities enabling individuals to 'recognise when information is needed and have the capacity to locate, evaluate, and use effectively the needed information.

Webber and Johnston (2003) defines information literacy as the adoption of appropriate information behaviour to obtain, through whatever channel or medium, information well fitted to information needs, together with a critical awareness of the importance of wise and ethical use of information in society while CILIP (2005) sees information literacyas knowing when and why you need information, where to find it, and how to evaluate, use and communicate it in an ethical manner".

SCONUL presents seven pillars of information literacy as follows:

- ✓ Recognise the information need
- ✓ Distinguish ways of addressing gap
- ✓ Construct strategies for locating
- ✓ Locate and access
- ✓ Compare and evaluate
- ✓ Organise, apply and communicate, and
- ✓ Synthesise and create

According to **Alexandersson and Limberg (2005)** students' ability to find, develop and apply new knowledge is considered essential, hence students should develop and practice critical thinking, scrutinizing facts and realising the potential consequences of different alternatives. Doing so, students should gradually come closer to scholarly ways of thinking and working.

These intentions are expected to have an impact on teachers' and librarians' work, for instance, they need to be information literate themselves to be able to support students developing their abilities to seek and critically use information.

In-Text Question

The Canadian Association of School Libraries (2007) describes information literacy as encompassing the ability to recognise the need for information to solve problems and develop ideas. **TRUE/FALSE**

In-Test answer

TRUE

1.2 Information society and the information literate person

The information society is an economic reality and not simply a mental abstraction. The slow spread/dissemination of information ends new activities, operations and products graduallycome to light. **(John Naisbitt)**

Figure 1.4:*John Naisbitt*

Also, it is a society where information is used as an economic resource, the community harnesses/exploits it, and behind it all an industry develops which produces the necessary information. **(Nick Moore).**

It is evident that the definitions are based on hidden preconceptions regarding which areas of life change significantly, some are centred on resources, others around products, or industries, or activities, or society and people.

Some consider the representation of global dimensions extremely important, while others do not. Some are of the opinion that political dimensions (control) are basic; others do not even mention it.

All this points in the direction that in order to reveal the content of the concept, one must explore all the possible points for examination of conduct and employ multi-dimensional analyses.

In-Text Question

What is information society?

In-Test Answer

The information society is an economic reality and not simply a mental abstraction

1.2.1 The Historical background of information society

Misunderstandings and distortions related to information society sap the power of the term by constantly placing its dawn or arrival somewhere in the distant future and thus we create and maintain a feeling of “transition”.

Alternatively, some do the exact opposite and try to prove that an information society existed as early as the late 19th century (more recently some even suggest the late 18th century), while some others go as far as to question the viability of the term by saying that “information” and “knowledge” have always played an important role in history.

However, information society is to be understood as a strongly historical notion, in a chronological order: it refers to a social condition (quality) which a given society can claim to have “attained” by taking various criteria into consideration as opposed to the prior stage of development it had achieved.

Here is no consensus in literature in regard to when individual countries “entered” information society and what variables should be examined. Interestingly, few scholars take a clear stand on this question and even if they do, they do so very rarely. **Alvin Toffler and John Naisbitt** insist that for the United States the “tipping point” into information society was in the late 1950s.

Others date this from the late 1960s. However, if theeasily measurable criteria of Table 4 (production, employment, work, level of education, interconnectedness) are used, a “rhythm” is taking shape, of the “third wave” taking its course across the Globe. This is despite the inconsistencies of retrospective data queues enabling a rough estimation – lacking rigorous and accurate calculation.

1.2.2 Elements of the Information Society

The elements of the information society are:

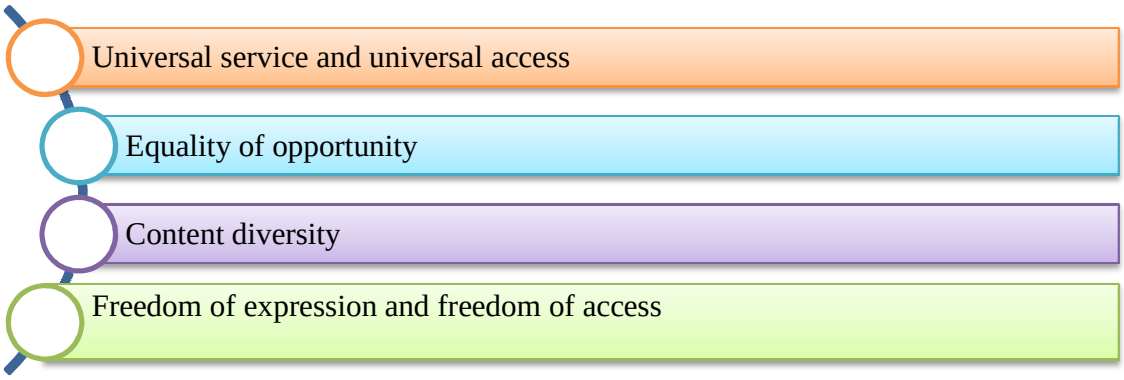

Figure 1.5:*Elements of the information society*

Universal service and universal access: In an environment where information and knowledge are crucial to social and economic development, access to information and the means to use that information needs to be extended to everyone, everywhere.

For this reason, universal access or universal service are a fundamental point of all declarations, in particular with reference to the needs of developing countries, where the information society both opens up great potential for development and poses new risks, widening disparities between and within countries.

Universal service is the long-term objective of making communication facilities available to every member of society on an individual or household basis, and it is used in particular in the regulatory legislative framework to indicate the obligation of telecommunication operators to provide their services to the entire population

However, the objective of universal service is still far from turning into reality in developing countries, and the universal service concept has been complemented by the concept of universal access, i.e. the opportunity for everyone, at home or at work, to be within a reasonable distance of a telephone

Equality of opportunity: The physical existence of infrastructures is essential but not sufficient for development of the information society: factors of gender, level of education and literacy, household income, language, race and ethnicity are all critical determinants of ICTs utilization and access within countries.

When the necessity to promote equality of opportunity to citizens, and in particular to encourage the participation of weaker categories in the use of ICTs. Each country should also promote measures “to help people of every age,

background and location and level of physical ability to access ICTs", and States should "actively involve the youth in national and regional ICT activities.

Ensure better gender balance in ICT use while instituting specific programmes that address the need of women particularly those aimed at rural and disenfranchised areas."

The use of voice and touch screen applications that enable a greater number of people to access ICTs and the development of applications and content suited to local needs, harness the potential of information and communication technologies, enabling the population to participate in the information society.

Content diversity: Content is a fundamental element for the utilization of ICTs. Development of local content on the Internet is a means to ensure a culturally and linguistically diverse cyberspace, and this diversity is also an important part of our cultural heritage and has to be protected.

ICTs provide new channels for the expression of this diversity and for the worldwide dissemination of locally created content. Diversity of content on the Internet would enable the participation of all and ensure sustainable access, realizing the full potential of the Internet as a source of information and knowledge.

Appropriate content would also benefit the utilization of ICTs for educational purposes, training and human resources development. The quality and variety of content is of "great importance to encourage more people to join online activities". special emphasis should be placed on the promotion of applications that are useful for various languages, such as translation, as well as development and distribution of contents that reflect local cultural or linguistic characteristics."

The Bamako Declaration acknowledged the continent's rich cultural diversity and urged that it should be reflected in cyberspace, affirming the need to "invest in African media content as well as new technologies and develop independent production."

The production of local, national and regional content in native languages, and the location of that content on regional servers, can also help in rationalizing access for local and regional traffic and promoting its exchange via the most direct route freedom of expression and freedom of access.

In-Text Question

Equality of opportunity state that the physical existence of infrastructures is essential but not sufficient for development of the information society. **YES/NO**

In-Text Answer

YES

Creation of local content, with the help of the international community and the collaboration of the private sector, should therefore be given high priority. The information society should serve the cultural enrichment of all citizens through diversity of content reflecting the cultural and linguistic diversity of our peoples. Diversity of content, including cultural and linguistic diversity, should be promoted.

The private sector should therefore develop and build information networks with abundant capacity to accommodate a wealth of information, both locally produced and that developed in other regions and nations."

1.3 Basic abilities that an information literate person must possess

Information literate is the ability to recognize the extent and nature of an information need, then to locate, evaluate, and effectively use the needed information**. (Plattsburgh State Information and Computer Literacy Task Force, 2001)**.

Information literate person must possess the following Basic abilities

A. An information literate personmust be able to recognize when information is needed, and to locate, evaluate, effectively use, and understand ethical issues related to information in its various formats.

This definition of information literacy conforms to the Information Literacy Initiative Committee of the SUNY Council of Library Directors, and the ALA definition, as well as that found in the Middle States Standards for Accreditation. (Plattsburgh State Library Faculty)

B. Information literate person must constitutes the abilities to recognize when information is needed and to locate, evaluate, effectively use, and communicate

information in its various formats. **(SUNY Council of Library Directors, Information Literacy Initiative Committee, Final Report, September 30, 1997)**

C.To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information. Producing such a citizenry will require that schools and colleges appreciate and integrate the concept of information literacy into their learning programs and that they play a leadership role in equipping individuals and institutions to take advantage of the opportunities inherent within the information society. **(American Library Association, Presidential Committee on Information Literacy, Final Report, January 10, 1989).**

Each institution should foster optimal use of its learning resources through strategies designed to help students develop information literacy the ability to locate, evaluate, and use information in order to become independent learners.

It is essential to have an active and continuing program of library orientation and instruction in accessing information, developed collaboratively and supported actively by faculty, librarians, academic deans, and other information providers. (Commission on Higher Education; Middle States Association of Colleges and Schools, Characteristics of Excellence in Higher Education; Standards for Accreditation, 1994 edition).

In-Text Question

_____ is the ability to recognize the extent and nature of an information need, then to locate, evaluate, and effectively use the needed information**.**

In-Text Answer

Information literate

Summary of study session 1

1. The term, ‘information literacy’, was coined by the president of the American Information Industry Association, **Paul Zurkowski**. This peak industry body served the interests of private, for-profit organisations concerned with the production and sale of information.

2. **Oyewusi (2010)** describes information literacy as the acquisition, interpretation, and dissemination of information, focussing on effective methods for locating, evaluating, using and generating information
3. The information society is an economic reality and not simply a mental abstraction. The slow spread/dissemination of information ends new activities, operations and products gradually come to light. (John Naisbitt)
4. It is evident that the definitions are based on hidden preconceptions regarding which areas of life change significantly, some are centred on resources, others around products, or industries, or activities, or society and people.
5. Misunderstandings and distortions related to information society sap the power of the term by constantly placing its dawn or arrival somewhere in the distant future and thus we create and maintain a feeling of “transition”.
6. An information literate personmust be able to recognize when information is needed, and to locate, evaluate, effectively use, and understand ethical issues related to information in its various formats.

Self-Assessment Questions (SAQs) for Study Session 1

Now, that you have completed this study session, you can assess how well you have achieved its learning outcomes by answering the following questions. Write your answers in your study diary and discuss them with your Tutor at the next Study Support Meeting. You can check your answers with the Notes on the Self-Assessment Questions at the end of this study session.

SAQ.1.1 (Testing Learning Outcome 1.1)

Explain the information literacy

SAQ 1.2 (Testing Learning Outcome 1.2)

1. According to **John Naisbitt**, what is information society?
2. Highlight four elements of the information society

SAQ 1.3 (Test Learning Outcome 1.3)

Give any two Basic abilities that an information literate person must possess

Notes on SAQS For study session 1

SAQ 1.1

The term, 'information literacy', was coined by the president of the American Information Industry Association, **Paul Zurkowski**. This peak industry body served the interests of private, for-profit organisations concerned with the production and sale of information.

Information literacy is defined as the set of skills needed to find, retrieve, analyse, and use information.

The Canadian Association of School Libraries (2007) describes information literacy as encompassing the ability to:

- ✓ Recognise the need for information to solve problems and develop ideas; pose important questions; use a variety of information gathering strategies; locate relevant and appropriate information; assess information for quality, authority, accuracy and authenticity,
- ✓ Includes the abilities to use the practical and conceptual tools of information technology to understand form, format, location and access methods, how information is situated and produced, research processes, and
- ✓ To format and publish in textual and multimedia formats and to adapt to emerging technologies.

SAQ 1.2

1. Information society? is an economic reality and not simply a mental abstraction. The slow spread/dissemination of information ends new activities, operations and products gradually come to light. **(John Naisbitt)**

2. Four elements of the information society are listed below:

i. Universal service and universal access

ii. Equality of opportunity

iii. Content diversity

iv. Freedom of expression and freedom of access

SAQ 1.3

Basic abilities that an information literate person must possess are:

1. An information literate person must be able to recognize when information is needed, and to locate, evaluate, effectively use, and understand ethical issues related to information in its various formats.

   This definition of information literacy conforms to the Information Literacy Initiative Committee of the SUNY Council of Library Directors, and the ALA definition, as well as that found in the Middle States Standards for Accreditation. (Plattsburgh State Library Faculty)

2. Information literate person must constitutes the abilities to recognize when information is needed and to locate, evaluate, effectively use, and communicate information in its various formats. (SUNY Council of Library Directors, Information Literacy Initiative Committee, Final Report, September 30, 1997

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Study Session 2: Information literacy, Information Society and Information Economy

Introduction

The concept of information literacy, which advocates the preparation of people to be successful users of information, addresses the concern librarians have with the evolving nature of information sources and the overwhelming amount of information available for use.

Information literacy skills have been identify as necessary tools that students and teachers must possess to be able to navigate the present and future landscape of information. This becomes more essential when curriculum reforms which advocates active resource based learning is considered

In this study session, you will learn the information economy, characteristics of information society and the relationship among information literacy, economy and society.

Learning Outcomes for study session 2

At the end of this study session,, you should be able to:

2.1 Explain the information economy

2.2 Highlight the characteristics of an information society

2.1 The information economy

Bells (2005) describes an information economy as an economy in which knowledge, information, and services are more valuable than manufacturing. It is an economy with an increased emphasis on informational activities and information industry.

Castells (2009) states that information economy is not mutually exclusive with manufacturing economy.

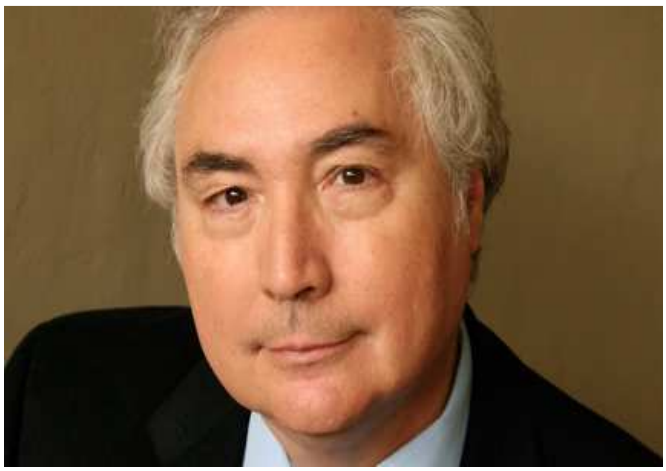

Figure 2.1:*Castells (2009)*
Source:*https://dornsife.usc.edu/assets/img/news/story/1123.jpg*

He finds that some countries such as Germany and Japan exhibit the informatization of manufacturing processes. In a typical conceptualization, however, information economy is considered a "stage" or "phase" of an economy, coming after stages of hunting, agriculture, and manufacturing. This conceptualization can be widely observed regarding information society, a closely related but wider concept.

In-Text Question

Define an information economy

In-Text Answer

Bells(2005) describes an information economy as an economy in which knowledge, information, and services are more valuable than manufacturing.

2.2 The characteristics of an information society

The information society according to **UN/ITU (2005)** cited in **Akinde (2006)** is the society where everyone can create, access, utilise and share information and knowledge, enabling individual, communities and people to achieve their full

potential in promoting their sustainable development and improving their quality of life.

The direct consequence of this is the advocacy for educational restructuring and with the teacher as guide. This will make a sharp shift from the traditional teacher dominated class to resource-based process approach to learning which allows maximum participation of the learner. Restructuring will make information literacy a necessity as students will seek to construct their own knowledge and create their own understanding.

The information society is characterized by the following:

1. Pervasive influence of IT on home, work, and recreational aspects of the individuals daily routine,
2. Stratification into new classes those who are information-rich and those who are information-poor,
3. Loosening of the nation states hold on the lives of individuals and the rise of highly sophisticated criminals who can steal identities and vast sums of money through information related (cyber) crime.

In-text Question

The information society is the society where everyone can create, access, utilise and share information and knowledge, enabling individual, communities and people to achieve their full potential . **TRUE/FALSE**

In-text Answer

TRUE

Karvalis (2007) presented several other definitions of information society as follows:

1. A society that organises itself around knowledge in the interest of social control, and the management of innovation and change... (Daniel Bell)
2. A new type of society, where the possession of information (and not material wealth) is the driving force behind its transformation and development (and where) human intellectual creativity flourishes. **(Yoneji Masuda)**
3. The information society is an economic reality and not simply a mental abstraction ...The slow spread/dissemination of information ends and new activities, operations and products gradually come to light. (John Naisbitt)
4. A society where information is used as an economic resource, the community harnesses/exploits it, and behind it all an industry develops which produces the necessary information ... (Nick Moore)
5. A social structure based on the free creation, distribution, access and use of information and knowledge the globalisation of various fields of life. **((Hungarian) National Strategy of Informatics, 1995)**
6. A new type of society in which humanity has the opportunity to lead a new way of life, to have a higher standard of living, accomplish better work, and to play a better role in society thanks to the global use of information and telecommunication technologies." **(BélaMurányi)**

Figure 2.2: Karvalis (2007)
Source:*http://www.abc.net.au/reslib/201407/r1297541_17718934.jpg*

The characteristics of information societies

Information societies have three main characteristics **(Moore, 2008**) which are:

Figure 2.3:*Moore, 2008*
Source:http://www1.pictures.gi.stylebistro.com/Demi+Moore+Makeup+Lipgloss+UEr5tTvdFrbl.jpg

First, information is used as an economic resource. Organizations make greater use of information to increase their efficiency, to stimulate innovation and to increase their effectiveness and competitive position, often through improvements in the quality of the

Goods and services that they produce.

There is also a trend towards the development of more information-intensive organizations that add greater amounts of value and thus benefit a country's overall economy.

Second, it is possible to identify greater use of information among the general public. People use information more intensively in their activities as consumers: to inform their choices between different products, to explore their entitlements to public services, and to take greater control over their own lives.

They also use information as citizens to exercise their civil rights and responsibilities. In addition, information systems are being developed that will greatly extend public access to educational and cultural provision.

Third, characteristic of information societies is the development of an information sector within the economy. The function of the information sector is to satisfy the general demand for information facilities and services.

A significant part of the sector is concerned with the technological infrastructure: the networks of telecommunications and computers. Increasingly, however, the necessity is also being recognized to develop the industry generating the information that flows around the networks: the information content providers. In nearly all information societies, this information sector is growing much faster than the overall economy.

In-Text Question

_____ Characteristics of information societies state that it is possible to identify greater use of information among the general public.

a. Third

b. First

c. Second

d. All of the answers

In-Text Answer

c. Second

Summary of study session 2

1. 1.Bells (2005) describes an information economy as an economy in which knowledge, information, and services are more valuable than manufacturing.
2. He finds that some countries such as Germany and Japan exhibit the informatization of manufacturing processes
3. 3.The information society according to **UN/ITU (2005)** cited in **Akinde (2006)** is the society where everyone can create, access, utilise and share information and knowledge, enabling individual, communities and people

to achieve their full potential in promoting their sustainable development and improving their quality of life.

4. The direct consequence of this is the advocacy for educational restructuring and with the teacher as guide
5. One of the characteristics of information society is Pervasive influence of IT on home, work, and recreational aspects of the individuals daily routine.

Self-Assessment Questions (SAQs) for Study Session 2

Now, that you have completed this study session, you can assess how well you have achieved its learning outcomes by answering the following questions. Write your answers in your study diary and discuss them with your Tutor at the next Study Support Meeting. You can check your answers with the Notes on the Self-Assessment Questions at the end of this study session.

SAQ 2.1 (Testing Learning Outcome 2.1)

Explain the information economy

SAQ 2.2 (Testing Learning Outcome 2.2)

Discuss the characteristics of an information society

SAQ 2.3 (Test Learning Outcome 2.2)

Describe the information society according to **UN/ITU (2005)** cited in **Akinde (2006)**

Notes on SAQS For study session 2

SAQ 2.1

Bells (2005) describes an information economy as an economy in which knowledge, information, and services are more valuable than manufacturing. It is an economy with an increased emphasis on informational activities and information industry. Castells (2009) states that information economy is not mutually exclusive with manufacturing economy.

He finds that some countries such as Germany and Japan exhibit the informatization of manufacturing processes. In a typical conceptualization, however, information economy is considered a "stage" or "phase" of an economy, coming after stages of hunting, agriculture, and manufacturing. This

conceptualization can be widely observed regarding information society, a closely related but wider concept.

SAQ 2.2

The characteristics of information societies are:

Information societies have three main characteristics **(Moore, 2008**) which are:

1. Information is used as an economic resource. Organizations make greater use of information to increase their efficiency, to stimulate innovation and to increase their effectiveness and competitive position, often through improvements in the quality of the goods and services that they produce.

There is also a trend towards the development of more information-intensive organizations that add greater amounts of value and thus benefit a country's overall economy.

2. It is possible to identify greater use of information among the general public. People use information more intensively in their activities as consumers: to inform their choices between different products, to explore their entitlements to public services, and to take greater control over their own lives.

They also use information as citizens to exercise their civil rights and responsibilities. In addition, information systems are being developed that will greatly extend public access to educational and cultural provision.

3. Characteristic of information societies is the development of an information sector within the economy. The function of the information sector is to satisfy the general demand for information facilities and services.

A significant part of the sector is concerned with the technological infrastructure: the networks of telecommunications and computers. Increasingly, however, the necessity is also being recognized to develop the industry generating the information that flows around the networks: the information content providers. In nearly all information societies, this information sector is growing much faster than the overall economy.

SAQ 1.3

The information society according to **UN/ITU (2005)** cited in **Akinde (2006)** is the society where everyone can create, access, utilise and share information and knowledge, enabling individual, communities and people to achieve their full potential in promoting their sustainable development and improving their quality of life.

The direct consequence of this is the advocacy for educational restructuring and with the teacher as guide. This will make a sharp shift from the traditional teacher dominated class to resource-based process approach to learning which allows maximum participation of the learner. Restructuring will make information literacy a necessity as students will seek to construct their own knowledge and create their own understanding.

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Study Session 3: Importance of Information Literacy

Introduction

The importance of information literacy in a globalised world. In this Information age, when the expansion of available information is proceeding at an unprecedented rate, clear concepts of how to access and evaluate this information are essential.

When citizens fail to understand how information is organised and accessed, they lose the freedom to seek and critically analyse information for themselves, the freedom to make personally informed decisions on political and social issues, and the freedom to make an enlightened contribution to the body of human knowledge. This study session continue to explain the importance of information literacy and basic components of information literacy to you.

Learning Outcomes for study session 3

At the end of this study session, you should be able to:

3.1 Explain the importance of information literacy

3.2 Discuss the basic components of information literacy Programme

3.1 The importance of information literacy

We live in a globalised digital world where information proliferates, uncontrolled, diverse and commodified. Individuals accessing information must deal with more than abundance questions of authenticity, accuracy, ethics, reliability and applicability pose challenges for the individual and society.

Universities operate within this information-rich environment and have commitment to empowering our students to participate effectively in it. The need to acquire skills to translate information into knowledge is relevant to all disciplines. Information literacy is linked to professional competency and gives graduates skills which extend into all areas of life.

According to **Bundy (2004)** many students continue to rely on serendipitous internet searching rather than strategic and considered use of a range of information resources, not recognising the value of acquiring more sophisticated knowledge skills. Information literacy is an acquired skill to be learned, synthesised, practiced and applied.

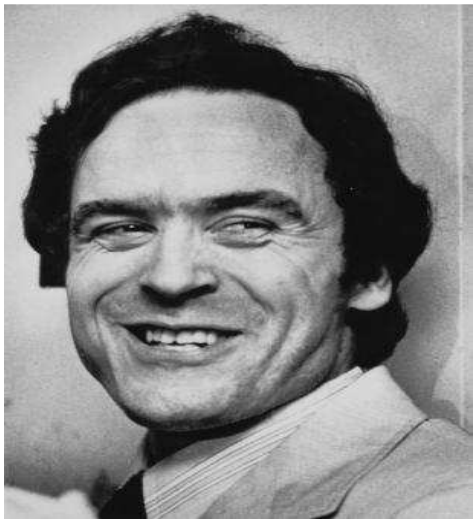

Figure 3.1: *Bundy (2004)*
Source:*http://assets.nydailynews.com/polopoly_fs/1.2306696.1438107806!/img/httpImage/image.jpg_gen/derivatives/article_307/bundy29n-4-web.jpg*

Information literate people know how to learn. They are prepared for lifelong learning 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 **(American Library Association, 1989).**

They know how to verify or refute opinion and become expert seekers of truth **(American Library Association, 1989).** Individuals who are able to collect, understand and critically analyse information are empowered to become responsible participants in a democratic community.

In-Text Question

"Individuals accessing information must deal with more than abundance questions of authenticity, accuracy, ethics, reliability and applicability pose challenges for the individual and society". **TRUE/FALSE**

In-Text Answer
TRUE

Doyles' (1992) attributes of the information literate person are the outcome of a Delphi study, in which a group of experts discussed and agreed upon characteristics associated with information literacy.
According to him, the information literate person is one who recognises that accurate and complete information is the basis for intelligent decision making, recognises the need for information, formulates questions based on information needs, and identifies potential sources of information.
Develops successful search strategies, accesses sources of information, evaluates information, organizes information, integrates new information into an existing body of knowledge, and uses information in critical thinking and problem solving Learning to be information literate involves acquiring and demonstrating these attributes.

University students need to acquire the knowledge and skills that will enable them to conceptualize information seeking as an intellectual process rather than strictly a mechanical exercise. Students who are information-literate can evaluate information critically, discern the relevant from the superfluous and incorporate selected information into their knowledge base.

Figure 3.2:*Doyles' (1992)*
Source:*https://www.arthur-conan-doyle.com/images/b/b6/1992-incident-victoria-falls-sherlock-holmes.jpg*

These concepts are developed and articulated in the **ACRL (Association of College & Research Libraries)** Information Literacy Competency Standards for

Higher Education and have been widely accepted by the international academic community. The application of these standards has been most successful in institutions that view information literacy as an academic matter rather than an issue confined to the library.

Information Literacy lies at the core of lifelong learning. Life-long learning enables individuals, communities and nations to attain their goals and to take advantage of emerging opportunities in the evolving global environment for shared benefit (Alexandra, 2001).

It assists individuals and institutions to meet technological, economic and social challenges, to redress disadvantage and to advance the well-being of all.

In-Text Question

_____ lies at the core of lifelong learning

a. Information academy

b. Information Literacy

c. Important of information

d. All of the answers

In-Text Answer

Information Literacy

Information literacy is important to all to be able to function effectively in the present day information society. Among the key importance of information literacy to students are as follows:

1. It enables students to be able to understand and adapt to the characteristics of the Information age, hence making them relevant.
2. If a student has "learned how to learn," upon graduation, they are a much more attractive job candidate.
3. It produces students with strong analytical, critical thinking and problem-solving skills.
4. Students can be expected to be adaptable, capable and valuable employee, with much to contribute to the society.
5. It empowers students to learn for themselves.
6. It enables students to make informed decision.

7. It equips students for success in their careers.
8. It meets needs of employers for information literate employees.
9. It promotes the creation of self-sufficient researchers.
10. It encourages the careful evaluation of information sources for bias and inaccuracy.
11. It helps students deal with information overload.
12. It enables students to analyze and evaluate the information they find, thus giving them confidence in using that information to make a decision or create a product (ACRL, 2014).

3.2 Critical Components of an information literacy programme

In any educational sector, there are four critical components of an information literacy programme which are explained below:

1. Resources to facilitate the learning of specific skills, e.g. web based information skills enhancement packages and other point of need, or self-paced instruction.
2. Curriculum that provides the opportunity to learn specific skills, either early in a course or at point of need, (from self-paced packages, peers, lecturers, librarians).
3. Curriculum that requires engagement in learning activities that require ongoing interaction with the information environment.
4. Curriculum that provides opportunities for reflection and documentation of learning about effective information practices. The first of these represents the resource base that supports learning skills underpinning information literacy, the second represents curriculum integration, and the latter two represent what is better described as ‘embedded’ information literacy education.

In all sectors, curriculum development, including course approval and review processes, maybe used to monitor the inclusion of information literacy in curriculum.

Operating alongside this model of information literacy education, are three critical elements of learning to be information literate:

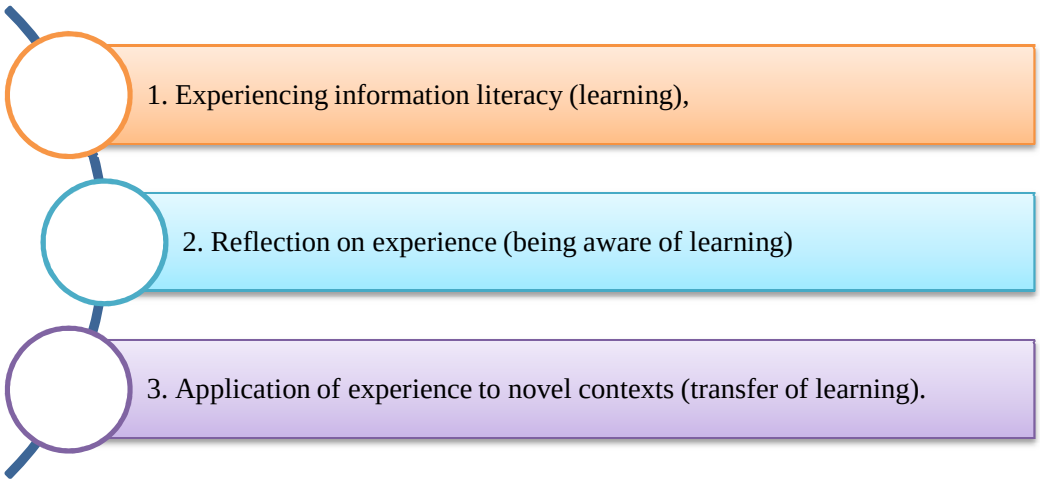

Figure 3.3:*Three critical elements of learning to be information literate*

Successful information literacy programs do not only focus on teaching information skills, they focus on designing learning experiences that require the use of information skills.

Summary of study session 3

1. Information literate people know how to learn. They are prepared for lifelong learning 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 (American Library Association, 1989).
2. Universities operate within this information-rich environment and have commitment to empowering our students to participate effectively in it.
3. Information literate people know how to learn. They are prepared for lifelong learning 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 (American Library Association, 1989).
4. They know how to verify or refute opinion and become expert seekers of truth (American Library Association, 1989). Individuals who are able to collect, understand and critically analyse information are empowered to become responsible participants in a democratic community.

Self-Assessment Questions (SAQs) for Study Session 3

Now, that you have completed this study session, you can assess how well you have achieved its learning outcomes by answering the following questions. Write your answers in your study diary and discuss them with your Tutor at the next Study Support Meeting. You can check your answers with the Notes on the Self-Assessment Questions at the end of this study session.

SAQ 3.1 (Testing Learning Outcome 3.1)

Discuss the importance of information literacy to students and learning

SAQ 3.2 (Testing Learning Outcome 3.2)

Discuss Components of an information literacy programme

Notes on SAQS For study session 3

SAQ 3.1

Information literacy is important to all to be able to function effectively in the present day information society. Among the key importance of information literacy to students are mentioned below

1. It enables students to be able to understand and adapt to the characteristics of the Information age, hence making them relevant.
2. If a student has "learned how to learn," upon graduation, they are a much more attractive job candidate.
3. It produces students with strong analytical, critical thinking and problem-solving skills.
4. Students can be expected to be adaptable, capable and valuable employee, with much to contribute to the society.
5. It empowers students to learn for themselves.
6. It enables students to make informed decision.
7. It equips students for success in their careers.
8. It meets needs of employers for information literate employees.
9. It promotes the creation of self-sufficient researchers.
10. It encourages the careful evaluation of information sources for bias and inaccuracy.
11. It helps students deal with information overload.
12. It enables students to analyze and evaluate the information they find, thus giving them confidence in using that information to make a decision or create a product (ACRL, 2014).

SAQ 3.2

1. Resources to facilitate the learning of specific skills, e.g. web based information skills enhancement packages and other point of need, or self-paced instruction.
2. Curriculum that provides the opportunity to learn specific skills, either early in a course or at point of need, (from self-paced packages, peers, lecturers, librarians).

3. Curriculum that requires engagement in learning activities that require ongoing interaction with the information environment.
4. Curriculum that provides opportunities for reflection and documentation of learning about effective information practices. The first of these represents the resource base that supports learning skills underpinning information literacy, the second represents curriculum integration, and the latter two represent what is better described as 'embedded' information literacy education.

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Study Session 4: Information Literacy Education Programme

Introduction

While many of todays' educators are concerned about creating learning activities that require engagement with today's ICT environment, it is attention to information practices that are fundamental to effective information use. It is bringing these information practices into the curriculum, and ensuring that students have the capabilities to engage in, and reflect upon such practices, that constitutes information literacy education.

Information practices may vary somewhat across disciplines, but they clearly underpin academic and professional practices in, for example, the humanities, science, social science, health sciences and technology based disciplines, as well as underpinning informed civic responsibility. In this study session, you will learn about information literacy education programme.

Learning Outcomes for study session 4

At the end of this study session,, you should be able to:

4.1 Describe the relevance of information literacy education programme in the society

4.2 Identify the strategies to implementing information literacy programme

4.1 Relevance of Information literacy education programme

Advocates for information literacy are often concerned about the need to promote the impact of information literacy on academic achievement. The significance of information literacy education lies in its potential to encourage deep, rather than surface learning, and in its potential to transform dependent learners into independent, self-directed, lifelong learners.

Without information literacy people are condemned to lack of information, dependence upon others for access to knowledge and information, and even to acute levels of information anxiety **(Wurman, 2001).** Making information and information technologies available to the world is not enough.

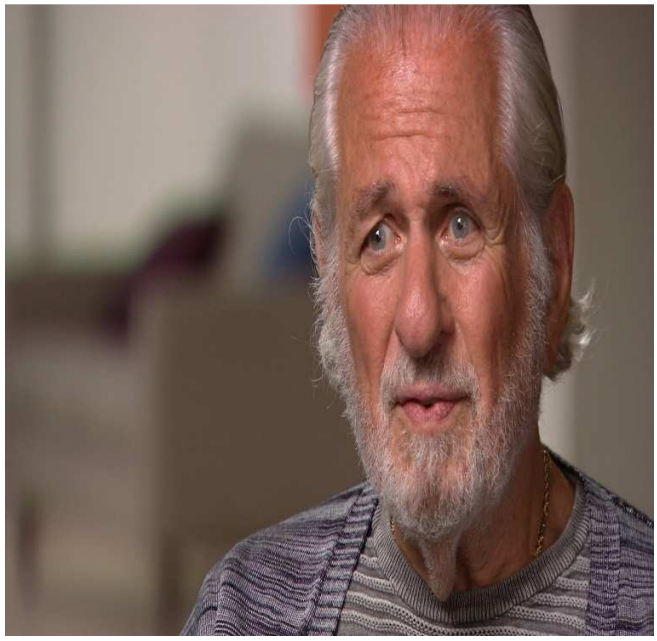

Figure 4.1: *Wurman, 2001*
Source:*http://cbsnews1.cbsistatic.com/hub/i/2015/04/18/29fd398f-37bb-436e-8423-9a2fc697ce00/tedrichardsaulwurmanoriginal.jpg*

Our education systems need to ensure that today's learners are empowered to learn and to take their place in the learning society. According to **Breivik (1998)**the essence of the changes required to educational systems is to realize the potential of information literacy education for lifelong learning.

In-Text Question

Without information literacy people are condemned to lack of _____

In-Text Answer

Information

According to **Breivick** information literacy centres on the need to move away from the dominant paradigm of pre-packaging information for students in the form

of textbooks, lectures and even artificially constrained multimedia resources, to facilitating active learning using real world information resources.

The processes of facilitating active learning using real world information resources would necessarily involve the information processes, practices and experiences described as information literacy.

The effects of pre-packaging of information are most obvious in the school and academic settings. Students, for example, receive pre-digested information from lectures and textbooks, and little in their environment fosters active thinking or problem solving.

What problem solving does occur is(often) within artificially constructed and limited information environments. Such exercises bear little resemblance to problem solving in the real world where multiple solutions of varying degrees of usefulness must be pieced together often from many disciplines and from multiple information sources such as online databases, videotapes, government documents, and journals.

-Education needs a new model of learning that is based on the information resources of the real world and learning that is active and integrated, not passive and fragmented. What is called for is not a new information studies curriculum, but a restructuring of the learning process. Textbooks, workbooks and lectures must yield to a learning process based on information resources available for learning and problem solving throughout people's lifetimes. **(Breivik, 1998)**

While curriculum practices involving active, collaborative, resource-based learning are often pointed to as the ideal, they are still innovative practices. Furthermore, while effective information use arguably underpins enquiry learning, problem based learning, action learning and various other student centred modes.

An effective information literacy education requires explicit attention to information processes; as well as the careful crafting of real world information practices, and meaningful reflection, into curricula. Such an information literacy education supports all of **Delors' (1996)** four pillars, the proposed foundations for education in the twenty-first century.

Figure 4.2: *Delors' (1996)*
Source:*http://www.biografiasyvidas.com/biografia/d/fotos/delors.jpg*

The use of real world learning resources supports learning to live together, effectively bringing the world into the classroom, or perhaps taking the classroom out into the world; and the use of ICTs has the potential to link students to the rich histories, cultures and traditions of the world in a way previously out of reach.
Using information to learn is also essential to learning to know, as learners seek out knowledge from the exploding range of resources available to them and develop a critical appreciation of the relative value of those resources.

In-Text Question
An effective information literacy education requires explicit attention to information processes; as well as the careful crafting of real world information practices. **YES/NO**
In-Text Answer
YES
Bringing the information practices of the real world into the curriculum supports learning to do, as learning experiences are designed to introduce learners to the kinds of information practices that will support professional and civic and personal life. And, finally, the emphasis on critical and creative thinking, communication,

team-work and wisdom that are integral to an information literacy education support the fourth pillar: learning to be.
Therefore, schools, colleges, universities and community information places all over the world need to pursue the pathways of information literacy education, in order to support, and bring to maturity, the embryonic educational systems that are emerging in response to the lifelong learning vision.

4.2 Strategies to implementing information literacy education programme

Information literacy has been described as a catalyst for educational change. According to Bruce (2004), information literacy education has the power to transform the learning process into one that will empower learners, and give them the capacity to engage in self-directed lifelong learning outside the walls of the formal educational process.

Information literacy education involves bringing real life experiences of information use into the classroom, and creating opportunities for critical reflection on the learning process, to foster awareness in learners of what they have learned. While global interest in self-directed lifelong learning has already emerged as a strongtrend and information literacy programs have developed in many places, these are still considered innovations.

Experience of those leading these developments suggests that there are a number of keys to facilitating the adoption of information literacy education which are explained below:

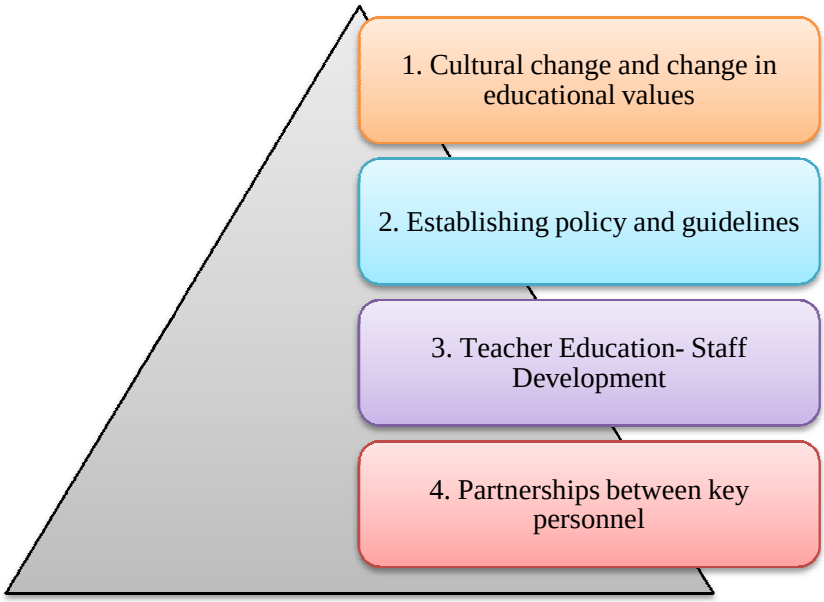

Figure 4.4: Keys to facilitating the adoption of information literacy education

1. Cultural change and change in educational values

The adoption of information literacy education is most likely to take root in contexts where there is simultaneous emphasis on what we know to be educational best practice. Broad shifts that are commonly advocated involve movement from a content orientation to a process orientation to teaching.

Shifts from a teacher-centred to a learner-centred view of learning, and an increased emphasis on understanding the perceptual worlds of students and their pedagogical implications. Such shifts both aid, and can be aided by, guided movement towards information literacy education.

It is generally the case that teachers who value the new paradigms find it much easier to embrace information literacy education. Clearly changes in educational cultures cannot be mandated; a valuing of information literacy and student-centred approaches to teaching and learning can be facilitated by changes to policy, staff development and curriculum as discussed below.

2. Establishing policy and guidelines

International, national and institutional guidelines and policies can direct and support the adoption of information literacy education. Internationally and nationally, of fundamental importance are policies and guidelines regarding basic levels of information technology infrastructure, and the need for an information literacy education program in schools.

Guidelines and policies for teacher education, and the establishment of information literacy programs, also should be dealt with at this level. National policies and guidelines targeting information literacy education and associated infrastructure in the wider community can only support such an emphasis on the educational system.

In-Text Question

_____, _____, _____ and _____ can direct and support the adoption of information literacy education

In-Text Answer

International, national, institutional guidelines and policies

Finally, and of considerable significance, are policy and guidelines regarding the role of the information specialist in the learning environment. In schools in particular, the role of the librarians has been shown to be very important for building information literacy into curriculum; and the education and placement of such personnel must be endorsed in both developed and underdeveloped regions.

At all levels the information literacy initiative can only be strengthened, by promoting it as a vehicle for enhancing critical enquiry and self-directed learning, and as a foundational element of a broader focus on lifelong learning. Attention to information literacy should clearly be rewarded through funding and grant schemes.

At the institutional level, policies need to support information literacy education in order to support or facilitate a flow into staff development and curriculum initiatives. Once the connection with the idea of information literacy has been made, many institutions have developed their own statements about information literacy and its' purposes in order to reflect the institutional context.

It is critical that institutions promote an integration of information literacy with the underlying values and philosophies of the educational institution. This may relate to association with industry and the economy, to the individual in seeking professional currency and renewal, to the empowering features of information literacy in community and personal contexts, to social justice issues, or to the spiritual and ethical dimensions of information literacy.

A society's ability to develop is determined by its ability to access information, so that information and information technologies are no longer a luxury but a basic human right (African Women, 1998).

3. Teacher Education- Staff Development

Professional education and staff development programmes for teachers and information specialists need to model and invite scholarly engagement with the idea of information literacy education. To help bridge the gap between policy and practice they need to reflect the changes to educational culture associated with promoting lifelong learning.

It is important that such programmes communicate with teachers, information specialists and managers about the character of information literacy, and draw upon their own life experiences to help them understand the importance of information literacy to learner development.

In-Text Question

Professional education and staff development programmes for teachers and information specialists need to model and invite scholarly engagement with the idea of information literacy education. **TRUE /FALSE**

In-Text Answer

TRUE

Some of the most important hurdles in such programs are 1) the hurdle of understanding that information literacy is not a prerequisite to learning, we are not talking about a program of remediation, but rather about actualizing a way of learning; 2) the hurdle of modifying, changing or constructing new designs for learning experiences; 3).

The hurdle of changing how much you expect students to learn; in a process approach content is no longer paramount, but rather the ability to learn; 4) the hurdle of technology; learning to use technology and learning to use technology to support learning.

The role of education for teachers, information specialists and managers, not only in schools but also in the tertiary sector, is critical to global information literacy education initiatives. National and international collaboration in the development of model programs will clearly lead development in this area. Aspects of learning may be electronically showcased, making readily available portfolios of strategies.

4. Partnerships between key personnel

Information literacy education is not possible without partnerships. Students, information specialists, it specialists, curriculum designers, community organizations, teachers, amongst others, all need an awareness of the value of information literacy, and all need to collaborate to make possible learning experiences that facilitate information literacy.

You should also note that no single group, in a broad context, nor individuals in a local context, neither governments, nor schools, nor universities, nor teachers, can carry responsibility for information literacy amongst students.

This responsibility must be shared within strategic partnerships operating at various levels, including curriculum design, policy development, staff development, research and classroom teaching; and be supported by educational leaders.

The most fundamental of these partnerships at all levels of education, from primary schools to doctoral studies, is the collaborative relationship between the teachers, information specialists and students.

In-Text Question
In a broad context, nor individuals in a local context, neither governments, nor schools, nor universities, nor teachers, cannot carry responsibility for information literacy amongst students. **YES/NO**

In-Text answer
NO
Reason: neither governments, nor schools, nor universities, nor teachers, **can** carry responsibility for information literacy amongst students.

The partnerships that are slowly transforming student learning in evolving information literacy programs all over the world seem to be based on changing views of the world from both librarian and teacher perspectives. Librarians are beginning to recognise the need to move away from a library and information retrieval centred view of information literacy towards a broader understanding of the role of information literacy and the information professional in fostering student learning. From a teacher perspective, there is a developing recognition of the importance of the world of information and information literacy to student learning.

The critical role of the librarian and media specialist as established through Information Power, US based guidelines for information literacy education in schools has provento be an important element of successful programs. It is also clear that educational teams need access to IT expertise as well as familiarity with learning theory and broader curriculum issues.

All five of the areas of partnership: curriculum design, policy development, staff development, research and classroom teaching are required to bring about change. The opportunity is available to systemically capture these elements, and to develop

the synergies between them, as one of the fundamental keys to creating teaching-learning experiences that promote self-directed and critical lifelong learning **(Bruce, 2001).**

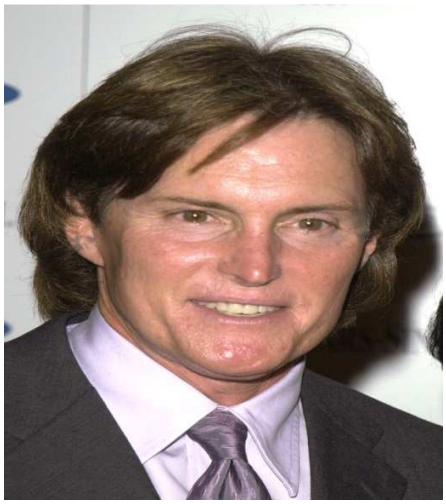

Figure 4.5: *Bruce, 2001*
Source:*http://www.eonline.com/eol_images/Entire_Site/201496/rs_634x1024-141006093811-634.bruce-jenner-hair-2001.jpg*

Summary of study session 4

1. Advocates for information literacy are often concerned about the need to promote the impact of information literacy on academic achievement.
2. Our education systems need to ensure that today's learners are empowered to learn and to take their place in the learning society. According to **Breivik (1998)** the essence of the changes required to educational systems is to realize the potential of information literacy education for lifelong learning.
3. One of the components of information literacy education programme is Resources to facilitate the learning of specific skills, e.g. web based information skills enhancement packages and other point of need, or self-paced instruction.
4. 4 Three critical elements of learning to be information literate are
   i. Experiencing information literacy (learning),
   ii. Reflection on experience (being aware of learning), and
   iii. Application of experience to novel contexts (transfer of learning).

5. Information literacy has been described as a catalyst for educational change.
6. .According to Bruce (2004), information literacy education has the power to transform the learning process into one that will empower learners, and give them the capacity to engage in self-directed lifelong learning outside the walls of the formal educational process.
7. Keys to facilitating the adoption of information literacy education
    i. Cultural change and change in educational values
    ii. Establishing policy and guidelines
    iii. Teacher Education- Staff Development
    iv. Partnerships between key personnel

Self-Assessment Questions (SAQs) for Study Session 4

Now, that you have completed this study session, you can assess how well you have achieved its learning outcomes by answering the following questions. Write your answers in your study diary and discuss them with your Tutor at the next Study Support Meeting. You can check your answers with the Notes on the Self-Assessment Questions at the end of this study session.

SAQ 4.1 (Testing Learning Outcome 4.1)

Of what relevance is information literacy education to students in a globalised world?

SAQ 4.2 (Testing Learning Outcome 4.2)

Describe the basic strategies to implementing information literacy programme in school

Notes on SAQS For study session 4

SAQ 4.1

Advocates for information literacy are often concerned about the need to promote the impact of information literacy on academic achievement. The significance of information literacy education lies in its potential to encourage deep, rather than

surface learning, and in its potential to transform dependent learners into independent, self-directed, life long learners.

Without information literacy people are condemned to lack of information, dependence upon others for access to knowledge and information, and even to acute levels of information anxiety **(Wurman, 2001).** Making information and information technologies available to the world is not enough.

According to **Breivick** information literacy centres around the need to move away from the dominant paradigm of pre-packaging information for students in the form of textbooks, lectures and even artificially constrained multimedia resources, to facilitating active learning using real world information resources. The processes of facilitating active learning using real world information resources would necessarily involve the information processes, practices and experiences described as information literacy.

The use of real world learning resources supports learning to live together, effectively bringing the world into the classroom, or perhaps taking the classroom out into the world; and the use of ICTs has the potential to link students to the rich histories, cultures and traditions of the world in a way previously out of reach.

Using information to learn is also essential to learning to know, as learners seek out knowledge from the exploding range of resources available to them and develop a critical appreciation of the relative value of those resources.

SAQ 4.2

Information literacy has been described as a catalyst for educational change. According to Bruce (2004), information literacy education has the power to transform the learning process into one that will empower learners, and give them the capacity to engage in self-directed lifelong learning outside the walls of the formal educational process.

Information literacy education involves bringing real life experiences of information use into the classroom, and creating opportunities for critical reflection on the learning process, to foster awareness in learners of what they have learned. While global interest in self-directed lifelong learning has already

emerged as a strongtrend and information literacy programs have developed in many places, these are still considered innovations.

Experience of those leading these developments suggests that there are a number of keys to facilitating the adoption of information literacy education which are explained below:

i. Cultural change and change in educational values
ii. Establishing policy and guidelines
iii. Teacher Education- Staff Development
iv. Partnerships between key personnel

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Study Session 5: Characteristics and Types of Information

Introduction

Information is that which is used and which creates value. Experience and research shows that good information has numerous qualities. Therefore, there are some characteristics that make information to be termed ‘good, useful or valuable. This study session will explain and describe the characteristics and types of information and value of information to you.

Learning Outcomes for study session 5

At the end of this study session, you should be able to:

5.1 Explain the various characteristics of information

5.2 Highlight the various types and forms of information

5.3 Discuss the various usages to which information can be put to

5.1 Various characteristics of information

Good information is relevant for its purpose, sufficiently accurate for its purpose, and completes enough for the problem, reliable and targeted to the right person. It is also communicated in time for its purpose, contains the right level of detail and is communicated by an appropriate channel **(Akande, 2009)**. In other words good information is one that is understandable to the user.

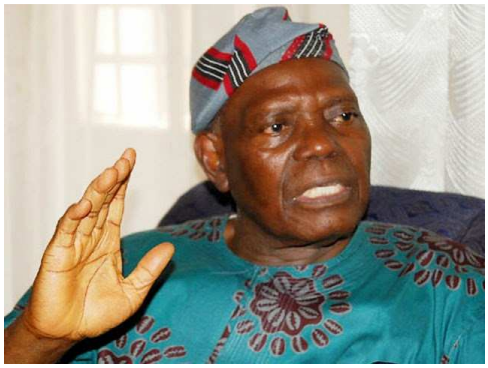

Figure 5.1:Akande, 2009
Source:*http://3.bp.blogspot.com/dGZlWzeScAo/UnsUZ0mP5tI/AAAAAAAAAxWA/rCHJwThx0V4/s1600/Chief+Bisi+Akande.jpg*

Barzilahi-Nahon (2006) emphasises the characteristics of good information as including;

1. Availability/accessibility,
2. Accuracy reliability,
3. Relevance,
4. Completeness,
5. Conciseness,
6. Presentation, and
7. Timing.

Availability/accessibility

Provision, availability and ease of access to information is a necessary ingredient of a good information. Information should be easy to obtain or access Lloyd (2008). Information kept in a book of some kind is only available and easy to access if you have the book to hand.

Accuracy

Information needs to be accurate enough for the use to which it is going to be put. To obtain information that is accurate is usually unrealistic as it is likely to be too expensive to produce on time. The degree of accuracy depends upon the circumstances. Accuracy of information is an important feature of good information.

As an example, if 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 recouped.

In-Text Question

Barzilahi-Nahon (2006) emphasises the characteristics of good information, mention any two

In-Text Answer

i. Relevance,
ii. Completeness

Reliability or objectivity

Reliability deals with the truth of information or the objectivity with which it is presented. One can only really use information confidently if you are sure of its reliability and objectivity.

When researching for an essay in any subject, an individual might make straight for the library to find a suitable book because he is 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.

In short, much time and energy goes into publishing a book and for that reason we can be reasonably confident that the information is reliable and objective. Compare that to finding information on the Internet where anybody can write unedited and unverified material and 'publish' it on the web.

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 suitable. However, what is relevant for one manager may not be relevant for another. The user will become frustrated if information contains data irrelevant to the task in hand.

For example, a market research company may give information on users' perceptions of the quality of a product. This is not relevant for the manager who wants to know opinions on relative prices of the product and its rivals. The information gained would not be relevant to the purpose. Relevance has to do with the importance of the information for your specific needs.

Purpose

Purpose describes the reason why information exists. Good information for you must serve the purpose for which you are looking for it.

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.

In-Text Question

_____ explain that Information should be relevant to the purpose for which it is required and it must be suitable.

a. Purpose
b. Completeness
c. Relevance/appropriateness
d. **Reliability or objectivity**

In-Text Answer

d. Relevance/appropriateness

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.

Presentation

The presentation of information is important to the user. Information can be more easily assimilated if it is aesthetically pleasing.

Currency deals with the timeliness of the information.

For some topics (e.g., history, literature), currency may not be as important to you. For information on current trends in business communication or other topics, however, you will want the most recent information. It all depends on your topic, or your information need.

Timing

Information must be on time for the purpose for which it is required. Information received too late will be irrelevant

Value of information

The relative importance of information for decision-making can increase or decrease its value to an organisation. 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 situation. If costs are too high to obtain information an organisation may decide to seek slightly less comprehensive information elsewhere.

5.2 Types of Information

The types of information are the following in the diagram below

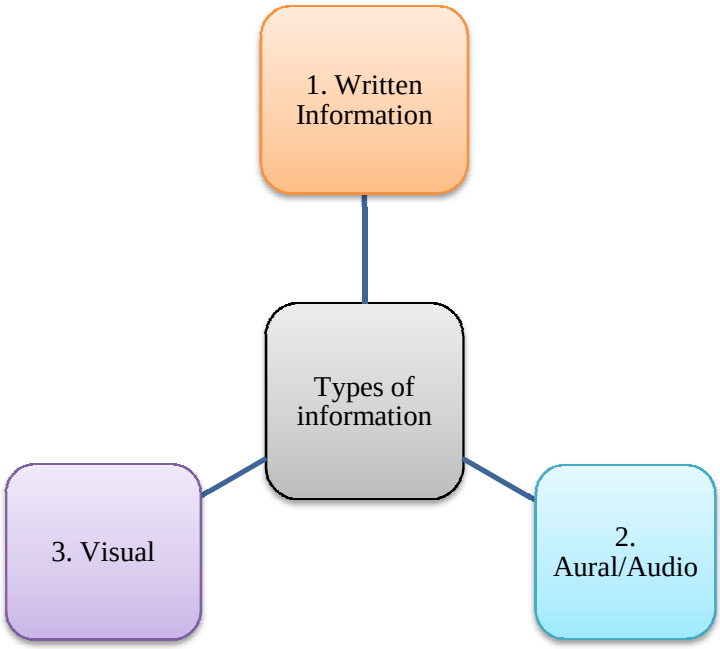

Figure 5.2: *Types of Information*

Written information

The vast majority of information created within an organisation is in the written form. This can include hand-written or word processed information and information in e-mails as well as reports produced from different classes of software, both general-purpose packages and bespoke software solutions. Examples of written information are books, journal articles, reports, memos and tables, receipts, invoices, statements, and summary accounting information among others.

Aural/Audio

Another common form of information is aural, which is information presented as sound. The commonest form of aural information is of course speech and examples of this would be formal meetings (where minutes are taken), informal meetings, talking on the phone and voice-mail messages. Nowadays many

organisations/institutions will have employees giving a presentation or talk to a group where there may be use made of music and sound effects as well as speech.

Visual

This form of information includes when pictures, charts and graphs are used to communicate information. Again, many presentations will make use of data projectors and presentation software that will include text, graphics and animations. Full video can also be projected via a data projector, and presentations can use video filmed with a digital video camera and then edited on a computer and distributed via CD or DVD now that DVD writers are quite common.

In-Text Question

All the following are types of information

Written information, aural/Audio and visual. YES/NO

In-Text Answer

YES

5.2.1 Use of Information

Information can be used for different purposes which are:

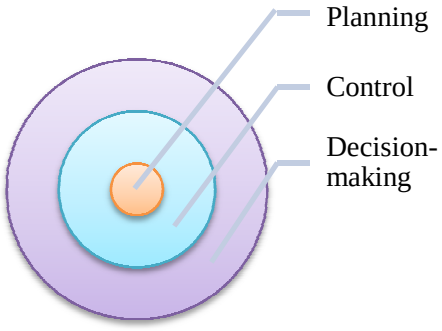

Figure 5.3:*Use of Information*

Planning

Planning is the process of deciding, in advance, what has to be done and how it is to be done. Planning should be based on good information. Planning is not an end in itself; its primary purpose is to provide the necessary structure for decision-making and resulting actions, throughout the organisation. The process of planning provides an opportunity to construct a sequence of actions that, when executed, will achieve the required aims and objectives.

Control

Control can be defined as the monitoring and evaluation of current progress against the steps of a pre-defined plan or standard. If these tasks are not proceeding in line with expectations then action is taken to bring the project back in line with what had been planned.

Control is carried out at strategic, tactical and operational levels. The type of control changes according to the level of management as does the amount of time spent on control. Organisations and individuals must plan in order to operate effectively. Likewise they must also operate controls to ensure that progress is being made against the plan.

These controls are needed because unexpected events can cause actual results to change from the expected planned results. Control measures actual progress against what is expected and provides information upon which remedial action can be taken, if required, either to change performance in order to conform to the original plan or to modify the plan.

Decision-making

Decision-making is the process of selecting an action or actions from those possible based on the information available. Decision making involves determining and examining the available actions and then selecting the most appropriate actions in order to achieve the required results.

Decision-making is an essential part of management and is carried out at all levels of management for all tasks. All decisions are arrived at in the same way. The

manager must choose, by some means, the result or results that s/he wishes to achieve and do some form of appraisal of the situation.

In-text Question

_____ is the process of deciding, in advance, what has to be done and how it is to be done.

a. Planning
b. Control
c. Decision-making
d. No answer

In-Text Answer

A Planning

Decision-making is made up of four phases:

a. Finding occasions for decision making
b. Find possible courses of action (i.e. what choices are available)
c. Choosing among these courses of action
d. Evaluating past choices.

Summary of study session 5

1. Good information is relevant for its purpose, sufficiently accurate for its purpose, and completes enough for the problem, reliable and targeted to the right person.
2. The characteristics of good information as including

i. Availability/accessibility,
ii. Accuracy reliability,
iii. Relevance,
iv. Completeness

3. Information needs to be accurate enough for the use to which it is going to be put. To obtain information that is accurate is usually unrealistic as it is likely to be too expensive to produce on time.
4. The types of information are the following:

i. Written information
ii. Aural/Audio
iii. Visual

5. Planning is the process of deciding, in advance, what has to be done and how it is to be done. Planning should be based on good information.
6. Control can be defined as the monitoring and evaluation of current progress against the steps of a pre-defined plan or standard.
7. Information can be used for different purposes which are:
   i. Planning
   ii. Control
   iii. Decision-making

Self-Assessment Questions (SAQs) for Study Session 5

Now, that you have completed this study session, you can assess how well you have achieved its learning outcomes by answering the following questions. Write your answers in your study diary and discuss them with your Tutor at the next Study Support Meeting. You can check your answers with the Notes on the Self-Assessment Questions at the end of this study session.

SAQ 5.1 (Testing Learning Outcome 5

Enumerate the characteristic of information literacy

SAQ 5.2 (Testing Learning Outcome 5.2)

Discuss in detail the various ways in which good information can be used

Notes on SAQS for Study Session 5

SAQ 5.1

The following are the characteristics of information literacy

1. Availability/accessibility,

2. Accuracy reliability,
3. Relevance,
4. Completeness

Availability/accessibility

Provision, availability and ease of access to information is a necessary ingredient of a good information. Information should be easy to obtain or access Lloyd (2008). Information kept in a book of some kind is only available and easy to access if you have the book to hand.

Accuracy

Information needs to be accurate enough for the use to which it is going to be put. To obtain information that is accurate is usually unrealistic as it is likely to be too expensive to produce on time. The degree of accuracy depends upon the circumstances. Accuracy of information is an important feature of good information.

SAQ 5.2

The uses of information are:

i. Planning
ii. Control
iii. Decision-making

Planning

Planning is the process of deciding, in advance, what has to be done and how it is to be done. Planning should be based on good information. Planning is not an end in itself; its primary purpose is to provide the necessary structure for decision-making and resulting actions, throughout the organisation. The process of planning provides an opportunity to construct a sequence of actions that, when executed, will achieve the required aims and objectives.

Control

Control can be defined as the monitoring and evaluation of current progress against the steps of a pre-defined plan or standard. If these tasks are not proceeding in line with expectations then action is taken to bring the project back in line with what had been planned.

Decision-making

Decision-making is the process of selecting an action or actions from those possible based on the information available. Decision making involves determining and examining the available actions and then selecting the most appropriate actions in order to achieve the required results.

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Study Session 6: Sources of Information

Introduction

There are diverse sources of information that can be used by individuals in meeting their information needs. The particular source to be used by an individual is usually dependent on the information need of the individual and the ability of the individual to use the information source.

In other words, it requires the possession of information literacy skills for an individual to be able to use information sources adequately. This study session will explain the various sources of information literacy to you.

Learning Outcomes for study session 6

At the end of this study session, you should be able to:

6.1 Explain the sources of information available

6.1 Sources of Information

Information sources can be broadly categorised into four viz; primary and secondary sources. These broad sources can be further classified into print (textbooks, journals, handbills, billboards, pamphlets, magazines, newspapers, government publications et cetera), electronic (radio, television, internet, film, video, social media et cetera) oral (friends, colleagues, librarians, teachers et cetera) and institutional (libraries, institutional centres et cetera).

The various sources of information are enumerated in the diagram below

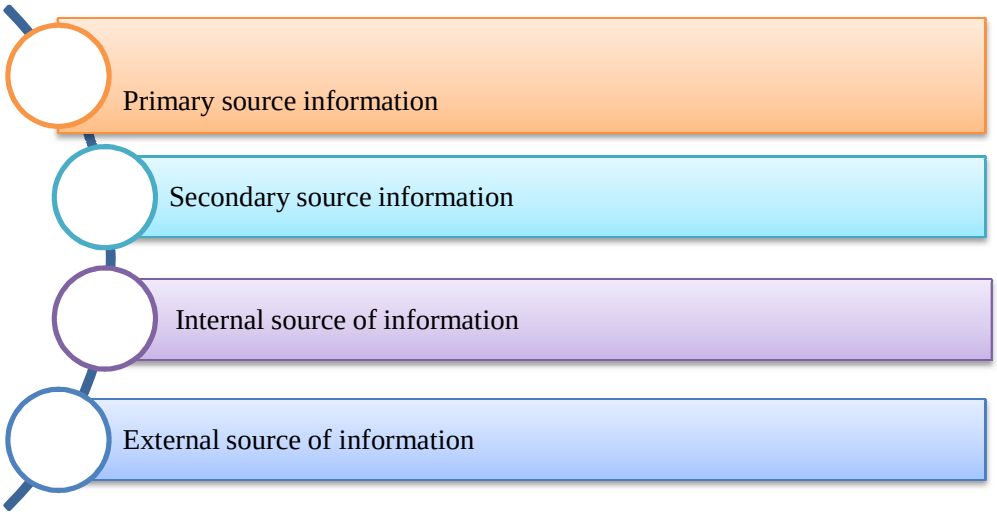

Figure 6.1: *Sources of information literacy*

Primary source of information

A primary source of information is one that provides data from an original source document (Alabi, 2010). A primary source is an original work created by a person who was directly involved in the subject of the work. Primary sources give you first-hand information.

Your instructors will usually want you to use primary sources for your assignments. Example of primary sources include: diaries, letters, works of fiction, autobiographies, art objects, research articles written by those who performed the research, artifacts, data, interviews, blog posts, email messages, and newspaper article written by a reporter who witnessed the event, among others.

There are many examples of primary sources in many walks of life, but generally a primary source is defined as being where a piece of information appears for the first time **(Aramide, 2007).**

Secondary source information

A secondary source of information is one that provides information from a source other than the original. Secondary sources are works about primary sources. In other words, they are processed primary sources. They analyse, critique, report, summarize, interpret or somehow restructure an original work.

Secondary sources are useful for getting an overview of a topic. The references found in secondary sources can also help you find primary sources. In many cases, the papers written are secondary sources. Examples of secondary sources are textbooks, book reviews, biographies and articles about other people's work.

Internal source of information

All organisations generate a substantial amount of information relating to their operation. This internal information is vital to the successful management of the organisation. The information may be available from a number of sources within the organisation, for example: research reports of a university, inaugural lectures, et cetera.

In-Text Question

A primary source of information is one that provides data from an original source document. TRUE/FALSE

In-Text Answer

TRUE

External source of information

An external source of information is concerned with what is happening beyond the boundaries of the organisation. This covers any documentation relating to a subject area produced as a summary or detailed report by an agency external to an organisation.

Such information may be obtainable from government agencies or private information providers. Examples might include: census figures, telephone directories, judgments on court cases, computer users' yearbook, legislation et cetera.

Summary of study session 6

1. Information sources can be broadly categorised into four viz; primary and secondary sources.

2. These broad sources can be further classified into print (textbooks, journals, handbills, billboards, pamphlets, magazines, newspapers, government publications et cetera), electronic (radio, television, internet, film, video, social media et cetera) oral (friends, colleagues, librarians, teachers et cetera) and institutional (libraries, institutional centres et cetera).
3. A primary source of information is one that provides data from an original source document (Alabi, 2010). A primary source is an original work created by a person who was directly involved in the subject of the work. Primary sources give you first-hand information. Your instructors will usually want you to use primary sources for your assignments.
4. A secondary source of information is one that provides information from a source other than the original. Secondary sources are works about primary sources. In other words, they are processed primary sources. They analyze, critique, report, summarize, interpret or somehow restructure an original work.
5. **Internal source of information**
6. All organisations generate a substantial amount of information relating to their operation. This internal information is vital to the successful management of the organisation. The information may be available from a number of sources within the organisation, for example: research reports of a university, inaugural lectures, et cetera.
7. An external source of information is concerned with what is happening beyond the boundaries of the organisation. This covers any documentation relating to a subject area produced as a summary or detailed report by an agency external to an organisation. Such information may be obtainable from government agencies or private information providers.

Self-Assessment Questions (SAQs) for Study Session 6

Now, that you have completed this study session, you can assess how well you have achieved its learning outcomes by answering the following questions. Write your answers in your study diary and discuss them with your Tutor at the next Study Support Meeting. You can check your answers with the Notes on the Self-Assessment Questions at the end of this study session.

SAQ 6.1 (Testing Learning Outcome 6.1)

Highlight four sources of information literacy then explain any two

SAQ 6.2 (Testing Learning Outcome 6.1)

What is the difference between internal and external source of information literacy?

Notes on SAQS For study session 6

SAQ 6.1

The four sources of information literacy are

i. Primary source information
ii. Secondary source information
iii. Internal source of information
iv. External source of information

A primary source of information is one that provides data from an original source document (Alabi, 2010). A primary source is an original work created by a person who was directly involved in the subject of the work. Primary sources give you first-hand information. Your instructors will usually want you to use primary sources for your assignments.

A secondary source of information is one that provides information from a source other than the original. Secondary sources are works about primary sources. In other words, they are processed primary sources. They analyze, critique, report, summarize, interpret or somehow restructure an original work.

SAQ 6.2

1. The internal information is vital to the successful management of the organisation while an external source of information is concerned with what is happening beyond the boundaries of the organisation.
2. The information may be available from a number of sources within the organisation while the external information covers any documentation relating to a subject area produced as a summary or detailed report by an agency external to an organisation.

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Study Session 7: Information Access Tools

Introduction

Generally you will need to use more than one access tool because well-balanced research usually requires information from different kinds of sources. By this point you should know what type of information sources, e.g. almanacs, encyclopaedias, etc. that you need.

The strategies for locating specific information sources vary depending on the access tool needed to find them. The main types of access tools to find the information are: library catalogues databases and print indexes and web indexes and search engines. In this study session you will learn about tools that can be used in accessing information.

Learning Outcomes for study session 7

At the end of this study session, you should be able to:

7.1 Explain tools that can be used in accessing information

7.2 Discuss the concept of electronic databases

7.1 Tools that can be used in accessing information

Information access tools either directly provide access to the information source you need (full text publication) or provide information to help you find a source (i.e., a reference).

Unfortunately, there is not just one tool for all sources. Google is a search tool, but it is not the only one. Some examples of search tools you will use for identifying print and/or electronic sources are:

Library Catalogues: for identifying books and other library materials. Library catalogues are primarily used for identifying and locating books (print or electronic) and other materials in a particular library's collection.

One of the major education reforms has to do with access to electronic resources. Access to electronic resources is only the most obvious problem. According to **Kazma** (2000), developing countries are faced with each other challenges in using ICT to improve and reform education, challenges related to teacher preparation, curriculum, pedagogy, and assessment.

The increasing demands made by users for access to electronic resources, continuous migration from print to online resources and the overall proliferation of electronic content have forced libraries and other information centres to re-examine their traditional operations and workflows.

In-Text Question

State the uses of Library catalogues

In-Text Answer

Library catalogues are primarily used for identifying and locating books (print or electronic) and other materials in a particular library's collection.

Efficient electronic resources management remains crucial in helping school libraries to fulfil their roles of meeting the information needs of their users. The use of electronic resources enables teachers and pupils to effectively and efficiently access digital information to assist with investigating issues, solving problems, making decision, produce creative solutions to support learning, develop new understanding in areas of learning and teaching.

It also helps in developing new thinking and learning skills to support learning **(UNESCO/IFIP, 2000).** With the use of electronic resources teachers have access to up-to-date information on subjects while students are better able to achieve curriculum outcomes.

As information is increasingly recorded in digital format and electronic databases are continually becoming more complex, information storage and retrieval processes have profoundly changed.

Over the past two decades three major migrations have occurred in library academic services: from printed resources to online electronic databases; from online databases to bibliographic and full-text CD-ROM databases; and from CD-ROM databases to online Internet access to bibliographic and full-text/full-image databases.

Various studies have been conducted on the impact of electronic databases on library printed resources as well as CD-ROM technology on online databases. A variety of electronic resources exists today for use in schools. These resources are generally in the form of online services/databases and/or CD-ROM.

Teachers and Instructors use these electronic resources to satisfy their teaching, learning and research needs in a manner that allows access to an enormous of information. The use of online databases has a place and a value in the school curriculum, both as a source of current information for students and teachers (Morris, 2004).

A major advancement that the advent of Information and Communication Technologies (ICTs) has brought to the education sector is the development of electronic databases to support teaching, learning and research. Through ICTs, a user is able to access information, both bibliographic and full text, in several million documents over a long distance.

A user can access the information required once there is a match between a search term and the document descriptors used for describing the documents needed.

The main purpose of establishing online access to electronic databases is to expand both teachers' and students' perception of their information world and to create a means to locate useful documents beyond those collected at building level within the library **(Tella and Adu, 2009).** Electronic databases should be considered an important extension of offline print, media and electronic resources such as CD-ROM.

In-Text Question

A major advancement that the advent of Information and Communication Technologies (ICTs) has brought to the education sector is the development of electronic databases to support teaching, learning and research. TRUE/FALSE

In-Text Answer

TRUE

7.2 The Concept of Electronic Databases

A database is an organized collection of information that is made up of related records. It is an organized list of published information sources either giving directions (a citation) to where you can find the full information i.e. Bibliographic database or containing the information itself i.e. full text database Databases do not function the same way but the same skill and Knowledge are required to use most databases.

Databases are often arranged in such a way as to make it easy to obtain specific pieces of information. While most databases are in electronic format some exist in hard copy form and some are in both. A Phone book is an example of a hard copy database though it can also exist in an electronic format.

Electronic databases are collections of regularly updated information organized so that a computer can quickly access requested data. They can be seen as a large, regularly updated files of digitised information related to a specific subject or field consisting of records of uniform format, organized for ease and speed of search and retrieval and managed with the aid of a Database Management System/Software.

In-Text Question

What is electronic database?

In-Text Answer

An electronic database is an organized collection of information that is made up of related records

It usually consists of collection of data arranged in a systematic way to make the search easy and fast. In other words, it is a computer-based collection or listing of information, usually organized with searchable elements of fields. Just like a traditional file cabinet, an electronic database is organized by fields, records and fields.

You should be familiar with these fields, records or information for effective search and retrieval of information. Electronic databases most often offer users the possibilities of searching many information sources at the same time. Some databases offer full text while some offer bibliographic information.

Electronic databases are available in a number of ways, on the Web, on CD-ROM or on a Library network of recent most electronic databases are web-based i.e. can be accessible through the Internet, unlike before when they are majorly on CD-ROM format.

The Internet facilities have expanded access to various electronic databases while with the use of CD format; one is limited to the information on the CD-ROM. Most CD-ROMs are Subject based. Electronic databases are different form Internet search engines.

The Internet search engines search the World Wide Web, whereas electronic databases search print and electronic sources that are not necessarily available on the World Wide Web. Most times, Institutions/Libraries pay subscription to have access to these databases. However, this is not to say that there are no free access electronic databases.

In-Text Question

The Internet facilities have expanded access to various electronic databases while with the use of _____

In-Text Answer

CD format

7.2.1 Access to Information

There are a number of reasons for the use of electronic databases in schools. First and foremost there is the need to respond to a mass of information. To some extent there is a social role in putting learners in touch with other people and their ideas.

According to **Cradler (2002)** the efficiency of bringing information to students and teachers provides an economic rationale. Use of electronic database does not only involve gaining access to information but also involves using computer to process and interpret the information, to make meaning and present information.

7.2.2 Types of Databases

Databases differ in subject matter, in forms of material included (format), the availability of full text (content) and in the method of accessing (Access method). Some databases can be accessed in more than one way.

Types of database are:

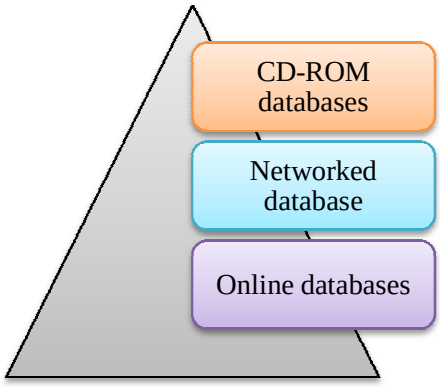

Figure 7.1:*Types of Database*

CD-ROM databases: They are the early form of databases. This type of database is often only available as stand-alone computers. You have to go to the library computer system there.

Networked database: Networked databases are usually available over Library network. This allows one or more person to search at the same time because the library loads all the information on a Central server. These can be accessed from any library site but require a password to use.

Online databases: They are stored elsewhere in remote servers and the library arranged access to them. Some can be searched over the Internet (using password) others require a dedicated Personal Computer.

In-Text Question

Mention any two types of database

In-Text Answer

i. Networked database
ii. Online databases

7.2.3 Accessing Electronic Databases

Databases can be accessed generally on the World Wide Web, over the Library network, and from Standalone terminals. Access to electronic databases may be free or through subscription. There is a wide range of electronic databases on the Internet. However, most electronic databases are usually **proprietary,** hence requires permission to access. Such access is granted usually after payment of subscription.

Free access databases are available on the online for free. Some of the free databases are resources that are in the **Public domain** usually supported by government agencies, museums, grants or other funding sources. Also, companies provide free databases to draw users into a website that also contain paid services. Satisfaction derived from the available free resources can draw users into purchasing.

For example some organisations provide abstracts of books or articles free and request users to pay for the full-text if they so wish to have access to the full text.

7.2.4 Techniques of searching Electronic Databases

Searching electronic database can be done through the following in the diagram below

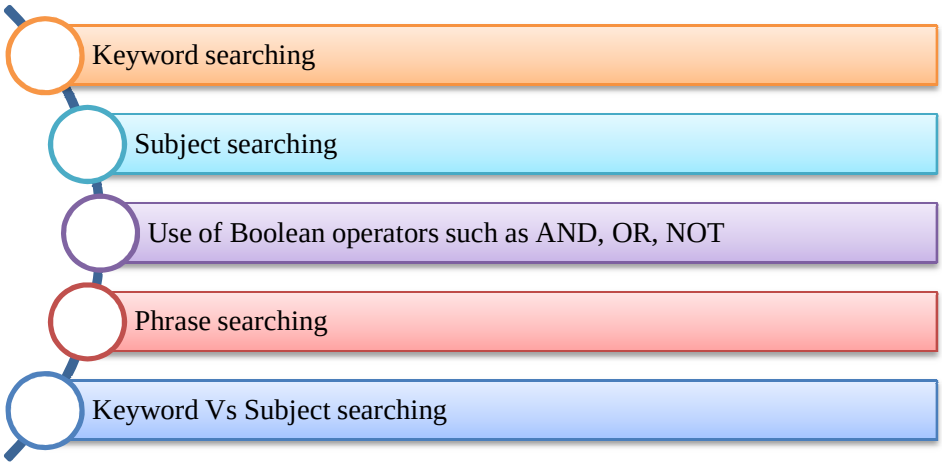

Figure 7.2: Techniques of searching Electronic Databases

1. Keyword searching: this involves typing in a **word** or two into the search box. It is a free text searching. The success of your search depends on the keywords you use. If you use a very common word, you will retrieve many records. The more keywords you use the fewer records you will retrieve. e.g. If you use "Biology" as your keyword, you will retrieve many records.

If you use "Molecular Biology" as your keywords, you will retrieve only few materials on "Molecular Biology". The search term comprises 2 keywords "Molecular" and "Biology"

2. Subject searching: You can also search through the **"subject"** by typing in the subject into the search box. It should be noted that there are different subject headings for different databases. Learning Ability vs. Intelligence. Sometimes a topic may not be popular enough to be given its own subject heading.

3. Use of Boolean operators such as AND, OR, NOT. With Boolean operators you can combine multiple terms into one search to get more records or hits. You can do this by using the Boolean operator "OR". Most databases offer Boolean searching e.g. If you type in Mammals OR Animals, the search engine will find all the records that have either of these words or both word in them, hence you get a lot of hits.

If you type in Mammals AND Animals, the search engine will find only the records that have both words in them, you have few records, but which are more specific to your search. The AND operator is used to reduce the number of hits you get.

You can also combine your search terms to try and limit the amount of materials or hits you get or eliminate irrelevant terms with the use of Boolean operator NOT. The NOT operator is used to reduce the number of hits you get e.g. Music NOT Jazz will give records that have the world music but do not have the word Jazz in them. However, you need to use this with care so that you will not eliminate useful records.

4. Phrase searching: Phrase searching involves typing in a phrase in the search box. This is called proximity searching. Phrase searching allows you to combine words so that you only get records where the words are next to each other in specified order. However not all databases do this.

e.g. If you are looking for records on “Molecular Biology”, you will get more precise results by using the phrase “Molecular Biology” than using Molecular AND Biology. You can also revise your search terms, and add or subtract from them as necessary.

In accessing electronic database, note the following:

The database you are using will affect the effectiveness of your search strategy e.g. using an Education database such as ERIC to search for materials on “teaching and learning” will be more productive than searching for same in a Health education database such as ”HINNARI”.

You may find your search term too broad, hence be more specific e.g. use “Molecular Biology” to search for materials on molecular biology instead of “Biology”

Also some search term might be too specific and will return too few hits e.g. use “Rock music” instead of “Grunge”.

5. Keyword Vs Subject searching

Table 7.1: Shows Keyword Vs Subject searching

a.	Keyword searches different parts of the record including title and abstract while subject searches only subject heading descriptor field.
b.	Keyword searches for any word or phrase while subject searches from existing list of subject headings.
c.	Keyword searches may retrieve irrelevant records while subject searches has high degree of relevancy
d.	Keyword searches is good for obscure topics while subject searches is good for common topics

For effective search and accessing of electronic databases, you need to develop an effective search strategy. Effective search strategy involves the following basic steps:

1. Developing a context map for your topic: identify your topic/subject focus e.g. Reproduction in Plants. Identify the key concepts in your question and list them. Identify if there are other ways in which you can express these key concepts.
2. Follow common search strategies
3. Choose appropriate databases
4. Use keywords to create search statements
5. Use synonyms and different word endings. Think about alternative terms that can be used to describe the same concepts. You should think about synonyms, plural/singular form e.g. Information communication technologies/Information communication technology, spelling variations e.g. favour/favor, acronyms e.g. ICT for Information communication technologies etc. Note that many books, journals, web pages and databases are produced in the U.S, thus consider their spellings in your search term.
6. Limit your search results.

In-Text Question

Name just one Effective search strategy

In-Text Answer

Follow common search strategies

As with any search, the more you know about your final objective, the better chance you will have of reaching it.

Successful searching of electronic databases depends on:

- an understanding of the topic you are researching
- development of a proper search strategy
- computer skills, knowledge of the content and format of the database, and of the search, display, and output commands
- awareness that the computer only searches for words and phrases and not for "interpretations" or "meanings"
- the ability to break your topic into concepts that are easily searched

Categories of Electronic databases

Free access databases: They are available in the public domain for accessing free of charge e.g. **Gale.**

Subscription-based/Proprietary databases: Access is granted only after payment of specified amount known as subscription e.g. **EBSCO.**

Single databases: This category of databases usually focus on specific product or product selling subscriptions to individual database titles e.g. Encyclopaedia of Astronomy and Astrophysics.

Database families: Database families comprise of a wide range of databases. Access granted to a wide range of databases through database families e.g. EBSCO.

Subject specific databases: This category of databases focuses on particular subject area. Electronic databases can be found in every subject areas e.g. Science databases online, Encyclopaedia of science and technology

Benefits of using Electronic databases

Various benefits accrue from the use of electronic databases. Electronic databases allow users to carry out the same tasks as paper-based but with the following advantages;

1. Increase speed. Speed of accessing information is increased with the use of electronic database.

2. Electronic database is easy to use
3. It stores very large amount of information thereby offering users opportunities to have access to diverse range of information.
4. It allows the sharing of one set of information amongst many users and therefore reduce duplication
5. Elimination of duplication prevents the problems of keeping several copies of the same database up to date and in line with each other.
6. It allows for easy searching and selection of information.

In-Text Question

Database families comprise of a wide range of databases. Access granted to a wide range of databases through database families. TRUE/FALSE

In-Text Answer

TRUE

Summary of study session 7

1. Information access tools either directly provide access to the information source you need (full text publication) or provide information to help you find a source
2. A database is an organized collection of information that is made up of related records.
3. There are a number of reasons for the use of electronic databases in schools. First and foremost there is the need to respond to a mass of information.
4. The types of database are: CD-ROM databases, Networked database and online databases
5. Databases can be accessed generally on the World Wide Web, over the Library network, and from Standalone terminals.
6. Databases can be accessed generally on the World Wide Web, over the Library network, and from Standalone terminals.
7. Searching electronic database can be done through the following; Keyword searching

Subject searching, Use of Boolean operators such as AND, OR, NOT, Phrase searching and Keyword Vs. Subject searching

Self-Assessment Questions (SAQs) for Study Session 7

Now, that you have completed this study session, you can assess how well you have achieved its learning outcomes by answering the following questions. Write your answers in your study diary and discuss them with your Tutor at the next Study Support Meeting. You can check your answers with the Notes on the Self-Assessment Questions at the end of this study session.

SAQ 7.1 (Testing Learning Outcome 7.1)

Describe the relevance of library catalogue as information access tools.

SAQ 7.2 (Testing Learning Outcome 7.2)

Discuss techniques of searching electronic database

SAQ 7.3 (Testing Learning Outcome 7.2)

Explain the benefits of electronic database in searching for information

Notes on SAQS For study session 7

SAQ 7.1

Library catalogues information for identifying books and other library materials. Library catalogues are primarily used for identifying and locating books (print or electronic) and other materials in a particular library's collection.

The increasing demands made by users for access to electronic resources, continuous migration from print to online resources and the overall proliferation of electronic content have forced libraries and other information centres to re-examine their traditional operations and workflows.

Efficient electronic resources management remains crucial in helping school libraries to fulfil their roles of meeting the information needs of their users. The use of electronic resources enables teachers and pupils to effectively and efficiently access digital information to assist with investigating issues, solving

problems, making decision, produce creative solutions to support learning, develop new understanding in areas of learning and teaching.

SAQ 7.2

Searching electronic database can be done through the following:

i. Keyword searching
ii. Subject searching
iii. Use of Boolean operators such as AND, OR, NOT
iv. Phrase searching
v. Keyword Vs Subject searching

1. **Keyword searching**: This involves typing in a **word** or two into the search box. It is a free text searching. The success of your search depends on the keywords you use. If you use a very common word, you will retrieve many records. The more keywords you use the fewer records you will retrieve. e.g. If you use "Biology" as your keyword, you will retrieve many records.

   If you use "Molecular Biology" as your keywords, you will retrieve only few materials on "Molecular Biology". The search term comprises 2 keywords "Molecular" and "Biology"
2. **Subject searching:** You can also search through the **"subject"** by typing in the subject into the search box. It should be noted that there are different subject headings for different databases. Learning Ability vs. Intelligence. Sometimes a topic may not be popular enough to be given its own subject heading.
3. **Use of Boolean operators such as AND, OR, NOT**. With Boolean operators you can combine multiple terms into one search to get more records or hits. You can do this by using the Boolean operator "OR". Most databases offer Boolean searching e.g. If you type in Mammals OR Animals, the search engine will find all the records that have either of these words or both word in them, hence you get a lot of hits.

   If you type in Mammals AND Animals, the search engine will find only the records that have both words in them, you have few records, but which are

more specific to your search. The AND operator is used to reduce the number of hits you get.

You can also combine your search terms to try and limit the amount of materials or hits you get or eliminate irrelevant terms with the use of Boolean operator NOT. The NOT operator is used to reduce the number of hits you get e.g. Music NOT Jazz will give records that have the world music but do not have the word Jazz in them. However, you need to use this with care so that you will not eliminate useful records.

4. **Phrase searching:** Phrase searching involves typing in a phrase in the search box. This is called proximity searching. Phrase searching allows you to combine words so that you only get records where the words are next to each other in specified order. However not all databases do this.

   e.g. If you are looking for records on "Molecular Biology", you will get more precise results by using the phrase "Molecular Biology" than using Molecular AND Biology. You can also revise your search terms, and add or subtract from them as necessary.

   In accessing electronic database, note the following:

   The database you are using will affect the effectiveness of your search strategy e.g. using an Education database such as ERIC to search for materials on "teaching and learning" will be more productive than searching for same in a Health education database such as "HINNARI".

SAQ 7.3

Benefits of using Electronic databases are;

Various benefits accrue from the use of electronic databases. Electronic databases allow users to carry out the same tasks as paper-based but with the following advantages;

1. Increase speed. Speed of accessing information is increased with the use of electronic database.
2. Electronic database is easy to use
3. It stores very large amount of information thereby offering users opportunities to have access to diverse range of information.
4. It allows the sharing of one set of information amongst many users and therefore reduce duplication

5. Elimination of duplication prevents the problems of keeping several copies of the same database up to date and in line with each other.
6. It allows for easy searching and selection of information.

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Study Session 8: Information Literacy Skills

Introduction

Information literacy skill describes the set of skills (or competencies) that are required if an individual is to be information literate. The ability to locate, evaluate and use information has always been important, but in today's Information Age, with the explosion of online library and Internet resources, these abilities take on a new urgency (ACRL, 2010).

Having more information from which to choose can make research more difficult rather than easier. Often the easiest information to find is unfiltered or unreliable. This study session will present to you concept of information literacy skills as well as key elements of information literacy skills.

Learning Outcomes from Study Session 8

At the end of this study session, you should be able to

8.1 Explain the concept of information literacy

8.2 Highlight the key elements of information literacy skills

8.1 Information Literacy

Information literacy skills are important for students´ academic, work and personal lives. In academia, discipline specific information is constantly changing, and much of what students learn in class will become out-dated.

Box 8.1: Definition of Information Literacy Skills

Information literacy skills can be defined as the set of skills that are required for an individual to be information literate. i.e., the ability to locate, evaluate and use information.

An information literate student is a lifelong learner, with the skills necessary to continually find and evaluate information about new developments in an academic discipline. Students will therefore need information literacy skills to succeed in the work force, whether they are creating a marketing proposal for a new product, working on assignments, researching on a topic or looking for current medical research to treat a patient.

Information literacy skills also enrich student's personal and civic lives. For example, students will draw upon these skills to apply for government services, buy a car, participate in elections, make informed health care decisions for themselves and their families, and manage their finances.

In- Text Question

_____ can be defined as the set of skills that are required for an individual to be information literate

a. Information literacy skills
b. Availability of resources
c. information literacy models
d. None of the above

In- Text Answer

The correct answer is option "A", Information literacy skills.

8.2 Elements of Information Literacy Skills

The core information literacy skills require of individuals to function effectively in the information economy are discussed below:

1. Understanding a need for information
2. Understanding availability of resources

3. Understanding how to find information
4. Understanding the need to evaluate results
5. Understanding how to work with or exploit results
6. Understanding ethics and responsibility of use
7. Understanding how to communicate or share your findings
8. Understanding how to manage your findings

1. **Understanding a need for information:** Recognising that information is needed; understanding why information is needed, what kind of information is required, as well as any associated constraints (e.g. time, format, currency, access); recognising that information is available in a wide range of formats in various geographical and virtual locations.

   The ability to articulate a question and so develop a focus for the research is an important skill. Information may be available on paper (books, reference works, journals, magazines, newspapers, etc), digitally (on CD-ROMs, over the Internet or the World Wide Web, on DVDs, on your own computer or network, etc), through other media such as broadcast or film, or from a colleague or friend.

   It may or may not be conveniently close to hand and easily accessible, and quantifying your need and making a decision about the use of an information source may be tempered by the ease and speed with which an answer can be obtained.

2. **Understanding availability of resources:** Be able to identify what resources are available for exploitation, where they are available, how to access them, the merits of individual resource types, and when it is appropriate to use them. As suggested, this requires an understanding of types of resource (paper-based, electronic/digital, human, etc.) and when to use each; what are the merits of individual resource types; what are the differences between them. For example;

a. A journal article may be available in print, as a part of an e-journal or as a record in a database of full-text articles
b. Not all search engines offer the same facilities

c. A company website, a market research report, or the website of a national statistical organisation may offer differing views
d. Access channels to information resources may vary according to who or where you are. e.g. For a student, availability is subject to having to go through various gatekeepers such as their parents' views or willingness to buy books, the library's filtering policy, access to a computer at home or at their friends, etc.

   Whether the exact same information sources can be reached by different students depends on the local channels available to them.
e. Any resource may be subject to cultural, political, industrial, national or other bias. e.g. Newspapers are notoriously politically biased and this same bias is continued in Web news sources; it is also important to be aware that PR companies are employed to create 'spin' websites.

Think, for example, of lobby group (e.g. animal rights, anti- or pro-abortion, extreme left or right wing political groups, religious groups/sects). The organisation behind the information you are being given may have an ulterior motive.

3. **Understanding how to find information:** This is an ability to search appropriate resources effectively and identify relevant information. Strategies need to be tailored to the resource being used, so as to get the best results from that resource. Users need to respond to search results, possibly because there are too few or too many and know when to stop searching.

An information literate person would also understand that, in addition to purposive searching, information can be acquired by browsing, scanning and monitoring information sources.

4. **Understanding the need to evaluate results:** This has to do with the ability of an individual to be able to evaluate information for its authenticity, accuracy, currency, value and bias and also, be able to evaluate the means by which the results were obtained in order to ensure that your approach did not produce misleading or incomplete results.

   This is not just whether the resource appears to answer the question, but whether it is intrinsically trustworthy.

5. **Understanding how to work with or exploit results:** Analyse and work with the information to provide accurate, presentable research results, or to develop new knowledge and understanding. To understand, compare, combine, annotate, and apply (use) the information found. Recognise and understand a possible need for further information searching.
6. **Understanding ethics and responsibility of use:** An information literate individual needs to know why information should be used in a responsible, culturally sensitive and ethical (professional, business, personal ethics) manner. Respect confidentiality and always give credit to other people's work. Understand the nature and uses of bias, in order to report appropriately.

   Where appropriate, provide a balanced (unbiased) report. This could include issues of intellectual property, plagiarism, unfair practice, fair use, freedom of information, data protection, codes of practice and ethical principles as set out by your employers, institution or professional body (e.g. CILIP).

7. **Understanding how to communicate or share your findings:** The ability to communicate/share information in a manner or format that is appropriate to the information, the intended audience and situation. This goes beyond analysis to the synthesis, organisation and/or creation of further information, presented in an appropriate form.
8. **Understanding how to manage your findings:** An individual should know how to store and manage the information you have acquired using the most effective methods available. Reflect critically on the process and achievement as well as on the sources found in order to learn from the experience of finding and using information.

   These Information literacy skills help in transforming an ordinary student into a "wise information consumer" and "lifelong learner. In conclusion, information literacy skills are made up for information technology skills, cognitive skills, the ethical cultural, social, social, and attitudinal issues surrounding the use of information.

In- Text Question

The core information literacy skills require of individuals to function effectively in the information economy are:

a. Understanding a need for information
b. Understanding availability of resources
c. Understanding how to find information
d. All of the above

In- Text Answer

The correct answer is option “B”

Summary for Study Session 8

In Study Session 8, you have learnt that:

1. Information literacy skills are important for students´ academic, work and personal lives. In academia, discipline specific information is constantly changing, and much of what students learn in class will become out-dated.
2. Information literacy skills can be defined as the set of skills that are required for an individual to be information literate. i.e., the ability to locate, evaluate and use information.
3. The core information literacy skills require of individuals to function effectively in the information economy are:
    a. Understanding a need for information
    b. Understanding availability of resources
    c. Understanding how to find information
    d. Understanding the need to evaluate results
    e. Understanding how to work with or exploit results
    f. Understanding ethics and responsibility of use
    g. Understanding how to communicate or share your findings
    h. Understanding how to manage your findings

Self-Assessment Questions (SAQs) for Study Session 8

Now that you have completed this study session, you can assess how well you have achieved its Learning outcomes by answering the following questions. Write

your answers in your study Diary and discuss them with your Tutor at the next Support meeting. You can check your answers with the Notes on the Self-Assessment questions at the end of this Module.

SAQ 8.1 (Tests Learning Outcomes 8.1)

8.1 Explain the concept of information literacy

SAQ 8.2 (Tests Learning Outcomes 8.2)

8.2 Highlight the key elements of information literacy skills

Study Session 9: Models and Components of Information Literacy

Introduction

Information literacy skills models are continuously integrated throughout the curriculum. They are most meaningful when taught within an inter-disciplinary unit or within a unit addressing an authentic, real-life need or problems (Town, 2001). In this study session, you will learn about models and components of information literacy.

Learning Outcomes from Study Session 9

At the end of this lecture, you should be able to

9.1 Explain the various models of information literacy

9.2 Highlight the key components of information literacy

9.1 Models of Information Literacy

Several models have been proposed by several scholars on information literacy. These models present the detail revolving around information literacy and its implication on individuals.

1. The Big 6 IL model: (An Information Problem-solving Process)
2. PLUS Information Skills Model
3. Seven Faces of Information Literacy (Christine Bruce)
4. The Information Skills Model (Seven Pillar Model)
5. The i-skills cycle (JISC)

1. **The Big 6 IL model: (An Information Problem-solving Process):** Eisenberg and Brown presented the Big 6 set of information skills model (1992) as a systematic framework and a useful tool for solving information problem by students at all levels from elementary school.

   Information literacy in this model may be described as systematic information behaviour. Learning to be information literate involves

practicing the use of the system, or the steps, when engaged in learning tasks. It is an information process model made up of six major stages viz:

a. Task definition
b. Information seeking strategies
c. Location and access
d. Use of information
e. Synthesis
f. Evaluation

The Big 6 set of skills seeks to articulate the entire information seeking life cycle. Fig 1 below diagrammatically illustrates the Big 6 set of skills by Eisenberg and Brown (1992).

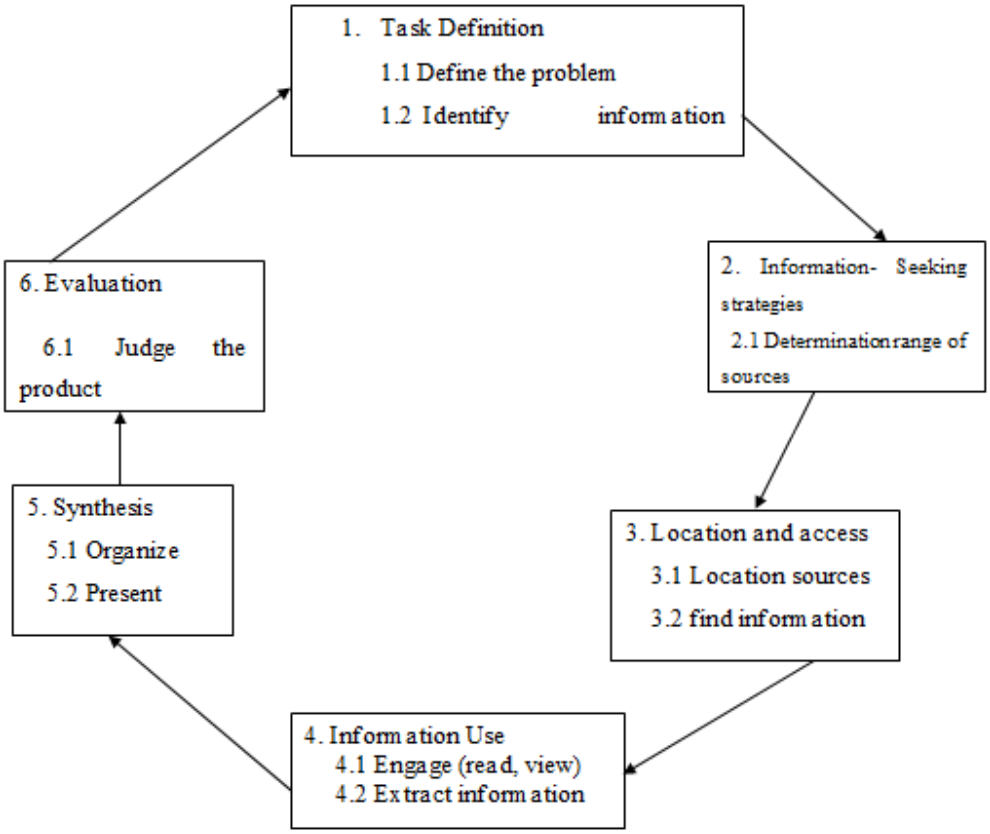


Fig 9. 1: The Big 6 Model by Eisenberg and Brown (1992)

2. **Plus Information Skills Model:** This model is developed by James Herring. PLUS is an acronym that both pupils and teachers will find easy to remember. It breaks information skills into four main parts as follows: Purpose, Location, Use, and Self-Evaluation.
    - ❖ **Purpose** describes identifying the purpose of an investigation or assignment;
    - ❖ **Location** describes finding relevant information sources related to the purpose;
    - ❖ **Use** describes selecting and rejecting information and ideas, reading for information, note-taking and presentation; and
    - ❖ **Self-evaluation** explains how pupils evaluate their performance in applying information skills to the assignment and what they learn for the future.
3. **Seven Faces of Information Literacy (Christine Bruce):** The relational model of information literacy (Bruce, 1997) was developed through researching the information experiences of professionals representing a range of disciplines. This model frames information literacy in terms of seven different ways of seeing and experiencing information use.

    Each of these reveals one of seven facets of the information literacy experience: information technology for retrieval and communication, information sources, information process, information control, knowledge construction, knowledge extension and wisdom. Many of these ways of seeing information literacy involve recognizing interdependency between groups and individuals in the information literacy experience.

    Learning to be information literate, in this model, involves becoming aware of different ways of experiencing information use through engaging in relevant information practices and reflection.

First Face: The IT Experience Information

IT used for information awareness

IT helps users stay informed/communicate

a social experience –not individual

Dependent on expertise within a group

Second Face: Info Sources Experience

bibliographic
human
organisational
assistance of intermediaries emphasised
Personal skills also valued

Third Face: The Info Process Experience
linked to problem-solving, decision-making
requires personal heuristics
a ‘creative art’

Fourth Face: The Info-Control Experience
recognizing relevant information
managing that information
making connections between information, projects, people
interconnectedness between information and parts of projects

Fifth Face: The Knowledge Construction Experience
emphasis on learning
Developing a personal perspective with knowledge gained
dependent on critical thinking

Sixth Face: The Knowledge Extension Experience
personal knowledge + experience + creative insight/intuition
mysterious experience
develops new knowledge/approaches to tasks/novel solutions

Seventh Face: The Wisdom Experience
personal quality
values and ethics combined with knowledge
information used for the benefit of others

4. The Information Skills Model (Seven Pillar Model)

a. The ability to recognize a need for information
b. The ability to distinguish ways in which the information ‘gap’ may be addressed
    - ❖ knowledge of appropriate kinds of resources, both print and non-print
    - ❖ selection of resources with ‘best fit’ for task at hand

- ❖ the ability to understand the issues affecting accessibility of sources

c. The ability to construct strategies for locating information
   - ❖ to articulate information need to match against resources
   - ❖ to develop a systematic method appropriate for the need
   - ❖ to understand the principles of construction and generation of databases

d. The ability to locate and access information
   - ❖ to develop appropriate searching techniques (e.g. use of Boolean)
   - ❖ to use communication and information technologies, including terms international academic networks
   - ❖ to use the appropriate indexing and abstracting services, citation indexes and databases
   - ❖ to use current awareness methods to keep up to date

e. The ability to compare and evaluate information obtained from different sources
   - ❖ awareness of bias and authority issues
   - ❖ awareness of the peer review process of scholarly publishing
   - ❖ appropriate extraction of information matching the information need

f. The ability to organise, apply and communicate information to others in ways appropriate
   - ❖ to the situation
   - ❖ to cite bibliographic references in project reports and theses
   - ❖ to construct a personal bibliographic system
   - ❖ to apply information to the problem at hand
   - ❖ to communicate effectively using appropriate medium
   - ❖ to understand issues of copyright and plagiarism

g. The ability to synthesise and build upon existing information, contributing to the creation of new knowledge

   The information skills model attempts to show diagrammatically the relationships between the ‘competent information user’ at the base level (strand (a) above), and the much more advanced idea of information literacy.

The ‘pillars’ show an iterative process whereby information users progress through competency to expertise by practising the skills. Only those at the higher end will be practising the seventh skill level.

5. The i-skills cycle (JISC)

JISC has defined i-skills as: the ability to identify, assess, retrieve, evaluate, adapt, organise and communicate information within an iterative context of review and reflection. According to JISC, i-Skills are needed at every stage of the information cycle and one may have a varying level of involvement at different stages, depending on one’s role. In some areas one may be required to have an expert level of i-skills. In others one will only need a working knowledge and may depend on other colleagues for specialist help. The detail below gives some scenarios of where and how i-skills might be used.

Identify/assess information need: Planning any new information-related work – a presentation, report or other publication – requires identifying and assessing information needs.

Locate/retrieve: Information can be found in many places, and there are efficient ways to both find and retrieve it - maybe on a website, or via a search engine.

Assess/evaluate: The learner should have the skills necessary to evaluate information from the web as opposed to traditional academic or business sources.

Adapt/create/use: One must know how to display information effectively, in the most relevant way, and using a range of media, including electronic.

Organise: know how to reference sources (citing) and manipulate data. Organization of data and information for future use.

Communicate: It deals with presentation skills verbally, in print form and in electronic environment. Ability to adapt the presentation to suit another environment. The students should be able to upload information onto a Virtual Learning Environment (VLE) for dissemination or sharing of information.

Reflect/review: As with all processes, the last step is to review and reflect on the outcomes, the effectiveness and efficiency of the process, and whether any improvements or additional information are needed.

In- Text Question

The followings are models of information literacy except;

a. The Big 6 IL model: (An Information Problem-solving Process)
b. PLUS Information Skills Model
c. Seven Faces of Information Literacy (Christine Bruce)
d. None of the above

In- Text Answer

The correct answer is option “D”

9.2 Information Literacy Components

The components of Information Literacy as presented by Chakravarty (2005) are:

1. Basic Literacy: Reading & Writing, Speaking & Listening, Counting & Calculating, Perception & Drawing
2. Library Literacy: Library Literacy is too important to be left to chance. Every student needs to understand the difference between fiction and non-fiction. Every student needs to know how to effectively use reference books and periodicals, both print and online.

   Students need to understand the Dewey Decimal System as a useful, logical system of hierarchical organization and recognize its similarities to other such systems. Students should use indexes, the library catalogue and the WebOPAC so often it becomes a subconscious skill.
3. Mass Media Literacy: Mass media literacy includes an understanding of the many different types of media and the purposes for which they can be used. Students should be taught the difference between fact and opinion, and be able to distinguish between information, entertainment, and persuasion. They should learn that all information has a source and that knowing the source, and its biases, is an important part of understanding any information. Educators talk about “higher order thinking” and about helping students become “more critical thinkers.”
4. ICT Literacy: The knowledge and skills necessary to understand information and communication technologies (ICTs), including the hardware, the software, systems, networks (both local area networks and

the Internet), and all of the other components of computer and telecommunications systems.

5. Media Literacy: The knowledge and skills necessary to understand all of the mediums and formats in which data, information and knowledge are created, stored, communicated, and presented, i.e., print newspapers and journals, magazines, radio, television broadcasts, cable, CD-ROM, DVD, mobile telephones, PDF text formats, and JPEG format for photos and graphics.
6. Technology Literacy: like basic literacy, technology literacy is a continuum of skills that can always be improved, and, like library literacy, students receive technology experience and instruction in a hit or miss fashion depending on which teachers they may have over the years. Every student deserves a wide range of educational experiences with various types of hardware and software. Every student should be thoroughly grounded in both the ethics and etiquette of technology use. Most importantly, every student should have frequent opportunities to use technological tools to create their own information artefacts-print as well as online.
7. Visual Literacy: According to Brian Stonehill, Pomona College, Clairmont, California, “Visual Literacy means the skills and learning needed to view visual and audio/visual materials skeptically, critically, and knowledgeably.” -- Visual Literacy is the link between Media Literacy and Technology Literacy. Media images and sound are end products created using the tools of digital technology.
8. Tool literacy: The ability to understand and use the practical and conceptual tools of current information technology relevant to education and the areas of work and professional life that the individual expects to inhabit.
9. Resource literacy: The ability to understand the form, format, location and access methods of information resources, especially daily expanding networked information resources.
10. Social-structural literacy: Knowing that and how information is socially situated and produced.

11. Research literacy: The ability to understand and use the IT-based tools relevant to the work of today's researcher and scholar.
12. Publishing literacy: The ability to format and publish research and ideas electronically, in textual and multimedia forms (including via World Wide Web, electronic mail and distribution lists, and CD-ROMs).
13. Emerging technology literacy: The ability to adapt, understand, evaluate and make use of the continually emerging innovations in information technology so as not to be a prisoner of prior tools and resources, and to make intelligent decisions about the adoption of new ones.
14. Critical literacy: The ability to evaluate critically the intellectual, human and social strengths and weaknesses, potentials and limits, benefits and costs of information technologies.

Summary for Study Session 9

In Study Session 9, you have learnt that:

1. Several models have been proposed by several scholars on information literacy. These models present the detail revolving around information literacy and its implication on individuals.
    a. The Big 6 IL model: (An Information Problem-solving Process)
    b. PLUS Information Skills Model
    c. Seven Faces of Information Literacy (Christine Bruce)
    d. The Information Skills Model (Seven Pillar Model)
    e. The i-skills cycle (JISC)

Self-Assessment Questions (SAQs) for Study Session 9

Now that you have completed this study session, you can assess how well you have achieved its Learning outcomes by answering the following questions. Write your answers in your study Diary and discuss them with your Tutor at the next Support meeting. You can check your answers with the Notes on the Self-Assessment questions at the end of this Module.

SAQ 9.1 (Tests Learning Outcomes 9.1)

9.1 Explain the various models of information literacy

SAQ 9.1 (Tests Learning Outcomes 9.1)

9.2 Highlight the key components of information literacy

References

Stern, C. (2002). "Information literacy unplugged: teaching information literacy without technology". White paper prepared for UNESCO, the US NCLIS and National Forum for Information Literacy. http://www.nclis.gov/libinter/

Webber, S., Boon, S. and Johnston, B. (2005). A comparison of UK academics' conceptions of information literacy in two disciplines: English and Marketing. *Library and information research*, 29 (93), 4-15.

Study Session 10: Internet and Internet Services

Introduction

The Internet is essentially made up of millions of computers all over the world that are linked together in a network that allows people to exchange information. The internet is a public network that everybody can use. It is often referred to as a network of networks that connects millions of computers all over the world together to form a single network (Otuka, Akande and Iginla, 2010).

Internet is an abbreviation for ‘international Network. It allows computers to communicate as long as they are connected to the internet. Information travels through the internet in so many languages known as protocols. In this session, you will learn about internet and services provided by internet,

Learning Outcomes from Study Session 10

At the end of this lecture, you should be able to

10.1 Define the Internet

10.2 Understand the history of Internet

10.3 Understand the various services provided by the Internet

10.1 Internet

The Internet is the global system of interconnected mainframe, personal, and wireless computer networks that use the Internet protocol suite (TCP/IP) to link billions of devices worldwide. It is a network of networks that consists of millions of private, public, academic, business, and government networks of local to global scope, linked by a broad array of electronic, wireless, and optical networking technologies.

Box 10.1: Definition of Internet

Internet can be defined as a global network connecting millions of computersi.e a global system of interconnected mainframe, personal, and wireless computer networks that use the Internet protocol suite (TCP/IP) to link billions of devices worldwide.

The Internet carries an extensive range of information resources and services, such as the inter-linked hypertext documents and applications of the World Wide Web (WWW), electronic mail, Usenet newsgroups, telephony, and peer-to-peer networks for file sharing.

Figure 10.1: *Internet*
Source: *https://www.thinglink.com/scene/679841471641157633*

10.2 History of Internet

The emergence of information networks can be traced back to the late 1960s and early 1970s in the United States of America at the U.S. Department of Defense (US-DOD). Precisely in 1969, the Advanced Research Project Agency (ARPA) of the United States of America Department of Defence (DOD) initiated a research project to link computers together for resource sharing.

The objective of the whole project was to build a communication system that would withstand catastrophes and still be functional. ARPANET was designed to prevent nuclear strike of the USSR from disabling all military computers, capability. The 1960'S was the period of "armament race" when both the East and West were pursuing researches that would give them military domination of the world.

The cold war generated interest in a ‘bomb-proof” network in the military bases. The arrangement was such that the network would be a peer-to per without a central host. This idea was chosen so that if any part of the network was destroyed by nuclear attack, the remaining would still go on communicating.
The ARPANET grew to include scientists and researchers across the country and in 1983 APPANET split into two as: MILNET: The Military portion of ARPANET and ARPANET which is purely for research. Other commercial network, cooperative networks and company networks started springing up as a result of the success of ARPANET.
In 1984 JANET (Joint Academic Network) came on board to link all universities and research institutions and also to provide access to the outside world. From this period, the network developed to such a level that it became internationally operational and great numbers of computer networks, which are united by a familiar addressing system were easily connected to aid communication.

In the ARPAnet network model communication will always occur between two computers: a source (the local terminal) and a destination (the remote terminal). It was designed to require minimum information from each end. To send a message through the network all one had to do was put its data into an envelope called Internet Protocol (IP) packet and switchit over to the destination with the correct "address".
With *this packet switching* technique, the source and destination computers were responsible for making sure that the packets get from one end to the other. Since the network itself was supposed to be unreliable and any portion of it could disappear without notice, the network was built around the idea that each computer would be able to serve as a pier or levee with any other computer.
If for some reason some part of it were unavailable between the source and destination computers, the machines would automatically trace the next best route among the two and proceed to deliver the message.
This model of networking proved to be very reliable because it not only permitted flawless connections but it also provided the only practical method for computers from different manufacturers to communicate. This was a very attractive idea for

universities and other large institutions which did not own one standard set of computers.

Furthermore, as technology evolved and computer prices dropped, manufacturers started to put TCP/IP protocol into their machines. It was not too long before research institutions, libraries and large corporations started adopting the protocol to connect their computers together.

This new demand started a communication standard that all institutions took benefit of. Since then, the Internet has not stopped growing. It is the fastest growing system of human communication in history. It has grown faster than telephone, television or fax. It currently connects over 200,000,000 computers, more than 500,000,000 users and grows 25% each month(Tracy, 2006).

In- Text Question

The Internet is the global system of interconnected mainframe, personal, and wireless computer networks that use the Internet protocol suite (TCP/IP) to link billions of devices worldwide. **TRUE or FALSE**

In- Text Answer

TRUE

10.3 Internet Services

Internet is an abbreviation for ‘international Network. It allows computers to communicate as long as they are connected to the internet. Information travels through the internet in so many languages known as protocols. The following Internet services are listed and explained below;

1. World Wide Web
2. Search engines
3. Electronic Mail
4. File Transfer Protocol (FTP)
5. Chat rooms (the channel or medium)
6. Mailing list
7. Instant Messaging

8. Chat
9. News Groups

1. **World Wide Web:** World Wide Web (www). It is also called ‘web’. It is a medium which allows people to get information that is available on the Internet. The World Wide Web is a computer-based network of information resources that combines text and multimedia. Information on the World Wide Web can be accessed and search through the internet.

   World Wide Web is the most important service provided by Internet (Tracy, 2006). It is an internet-based hypermedia initiative for global information sharing. World wide web was developed in 1989 by Tim Berners-Lee of the European Particle Physics Lab (CERN) in Switzerland.
2. **Search engines:** Search engines are developed for searching information on the Internet. The search engine, usually referred to as web search engine, is a software program that helps users find information stored on a personal computer or network of computers such as the internet.

   The search engine provides an active link to web sites containing the information the user is looking for. A search engine is used to obtain and download information from the Internet. Also, some search engines are used for special purposes like the Google groups, Google news, and Google book search.

   Examples of search engines

   a. Common search engines on the internet include:
   b. Google (www.google.com) from Google incorporated
   c. Yahoo (www.yahoo.com) from yahoo incorporated
   d. eBay(www.ebay.com)
   e. mama(www.mama.com)
   f. Amazon.com (www.amazon.com) from Amazon.com incorporated.
   g. ask.com (www.ask.com)
   h. wikipedia (www.wikipedia.com) from Wikipedia foundation.
   i. mebo (www.mebo.com)
   j. Encarta encyclopedia published by the Microsoft Corporation

3. **Electronic Mail:** Electronic mail, commonly known as email or e-mail, is a method of exchanging digital messages from an author to one or more recipients. Modern email operates across the Internet or other computer networks. Some early email systems required that the author and the recipient both be online at the same time, in common with instant messaging.

   Today's email systems are based on a store-and-forward model. Email servers accept, forward, deliver and store messages. Neither the users nor their computers are required to be online simultaneously; they need connect only briefly, typically to an email server, for as long as it takes to send or receive messages.

   An email message consists of three components, the message envelope, the message header, and the message body. The message header contains control information, including, minimally, an originator's email address and one or more recipient addresses.

   Usually descriptive information is also added, such as a subject header field and a message submission date/time stamp. Distributes e-mail messages and attached files to one or more electronic mailboxes. Message can consist of attachment, graphic or video/audio clips. Examples of e-mail addresses are:

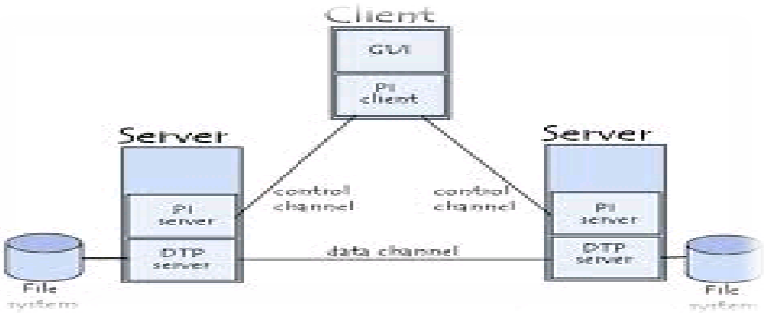
   a. Ka.aramide@mail.ui.edu.ng
   b. adeoye@gmail.com
   c. oni@yahoo.com
   d. Ibrahin_7@hotmail.com

   Different E-mail services providers include:

   a. Gmail
   b. Hotmail
   c. Yahoo
   d. MSN

4. **File Transfer Protocol (FTP):** File Transfer Protocol (FTP) is a standard network protocol used to transfer files from one host to another host over a TCP-based network, such as the Internet. FTP is built on a client-server architecture and uses separate control and data connections between the client and the server.

   FTP users may authenticate themselves using a clear-text sign-in protocol but can connect anonymously if the server is configured to allow it. The first FTP client applications were interactive command-line tools, implementing standard commands and syntax. Graphical user interface clients have since been developed for many of the popular desktop operating systems in use today.



Chat Rooms

Real time typed conversation via computers.

5. **Chat rooms (the channel or medium):** Chat clients (program used to connect to a chat server). Chart rooms are normally included on a browse and freely downloaded from the web. Some are text only while others have support voice & video.
6. **Mailing list:** This represents a group of e-mail address given a single name. When a message is sent to the mailing list everyone on the list receive the message. To add your name to a mailing list you must subscribe to it and unsubscribe to remove your name.
7. **Instant Messaging:** Instant messaging notifies you when one or more people are online to allow exchange of messages and files. It also allows you to join private chat rooms.

8. **Chat:** Chat is real time conversation that takes place on a computer. Chat room is location on server that permits users to discuss topics of interest. Some are the text only while others have support voice and video
9. **News Groups:** Online area in which users conduct written discussion about a particular subject. They include:
    a. Usenet (collection of all internet newsgroups)
    b. News server (computer storing newsgroups messages)
    c. Newsreader (program used to access newsgroups)
    d. Posting (adding an article to the newspaper)
    e. Message board (discussion board; easier to use)
    f. Blog (short for the web log; regularly updated)

Summary for Study Session 10

In Study Session 10, you have learnt that:

1. Internet can be defined as a global network connecting millions of computers i.e a global system of interconnected mainframe, personal, and wireless computer networks that use the Internet protocol suite (TCP/IP) to link billions of devices worldwide.
2. The emergence of information networks can be traced back to the late 1960s and early 1970s in the United States of America at the U.S. Department of Defense (US-DOD). Precisely in 1969, the Advanced Research Project Agency (ARPA) of the United States of America Department of Defence (DOD) initiated a research project to link computers together for resource sharing.
3. Internet is an abbreviation for ‘international Network. It allows computers to communicate as long as they are connected to the internet. Information travels through the internet in so many languages known as protocols.

Self-Assessment Questions (SAQs) for Study Session 10

Now that you have completed this study session, you can assess how well you have achieved its Learning outcomes by answering the following questions. Write your answers in your study Diary and discuss them with your Tutor at the next

Support meeting. You can check your answers with the Notes on the Self-Assessment questions at the end of this Module.

SAQ 10.1 (Tests Learning Outcomes 10.1)

10.1 Define the Internet

SAQ 10.2 (Tests Learning Outcomes 10.2)

10.2 Understand the history of Internet

SAQ 10.3 (Tests Learning Outcomes 10.3)

10.3 Understand the various services provided by the Internet

Study Session 11: Evaluating Internet Resources for Use

Introduction

Evaluating information found on the internet is very critical to avoid bias and misinformation (Aramide, 2009). Unlike similar information found in newspapers or television broadcasts, information available on the Internet is not regulated for quality or accuracy; therefore, it is particularly important for the individual Internet user to evaluate the resource or information. This study session will present to you the need to evaluate information retrieved from the internet as well as the benefits of using the internet as information source.

Learning Outcomes from Study Session 11

At the end of this study session, you should be able to

11.1 Discuss the need to evaluate information retrieved from the Internet

11.2 Explain the benefits of using the Internet as information source

11.1 Need to Evaluate Information Retrieved from the Internet

Since it is very possible for anybody to publish anything they wish on the Web, it is often difficult to determine authorship of Web sources, and even if the author is listed, he or she may not always represent him or herself honestly, or he or she may represent opinions as fact. Therefore, the responsibility is on the user to evaluate resources effectively.

Basic questions to ask in evaluating internet resources to determine its suitability for academic, scholarly, business and other important purposes, amongst others, are;

Figure 11.1: *Basic Questions in Evaluating Internet Resources*

Authority

a. Is the name of the author/creator on the page?
b. Are his/her credentials listed (occupation, years of experience, position or education)?
c. Is the author qualified to write on the given topic? Why?
d. Is there contact information, such as an email address, somewhere on the page?
e. Is there a link to a homepage?
f. If there is a link to a homepage, is it for an individual or for an organization?
g. If the author is with an organization, does it appear to support or sponsor the page?
h. What does the domain name/URL reveal about the source of the information, if anything?

In- Text Question

If the owner is not identified, what can you tell about the origin of the site from the address?

In- Text Answer

To find relevant information about the author, there may be need check personal homepages on the Web, campus directory entries and information retrieved through search engines. Also check print sources in the Library Reference area; Who's Who in America, Biography Index, and other biographical sources can be used to determine the author's credentials.

Purpose

a. Knowing the motive behind the page's creation can help you judge its content.
b. Who is the intended audience?
c. Scholarly audience or experts?
d. General public or novices?
e. If not stated, what do you think is the purpose of the site? Is the purpose to:
f. Inform or Teach?
g. Explain or Enlighten?
h. Persuade?
i. Sell a Product?

It is however important to know that most web pages for academic purposes should be devoid of advertisement

Objectivity

a. Is the information covered fact, opinion, or propaganda?
b. Is the author's point-of-view objective and impartial?
c. Is the language free of emotion-rousing words and bias?
d. Is the author affiliated with an organization?
e. Does the author's affiliation with an institution or organization appear to bias the information?
f. Does the content of the page have the official approval of the institution, organization, or company?

Accuracy

a. Are the sources for factual information clearly listed so that the information can be verified?
b. Is it clear who has the ultimate responsibility for the accuracy of the content of the material?
c. Can you verify any of the information in independent sources or from your own knowledge?
d. Has the information been reviewed or refereed?
e. Is the information free of grammatical, spelling, or typographical errors?
f. Reliability and Credibility
g. Why should anyone believe information from this site?
h. Does the information appear to be valid and well-researched, or is it unsupported by evidence?
i. Are quotes and other strong assertions backed by sources that you could check through other means?
j. What institution (company, government, university, etc.) supports this information
k. If it is an institution, have you heard of it before? Can you find more information about it?
l. Is there a non-Web equivalent of this material that would provide a way of verifying its legitimacy?

Currency

a. If timeliness of the information is important, is it kept up-to-date?
b. Is there an indication of when the site was last updated?
c. Are links related to the topic and useful to the purpose of the site?
d. Are links still current, or have they become dead ends?
e. What kinds of sources are linked?
f. Are the links evaluated or annotated in any way?

The quality of Web pages linked to the original Web page may vary; therefore, you must always evaluate each Web site independently.

There are entire books; scholarly journal articles; magazine articles; newspaper articles; video; feature length movies; music; games; software you can download; self-help; shopping; gambling; sports scores; opportunities to interact with others

using email, chat, and live voice and video; and lots of other information on the Internet. If something can be digitized, there is a good chance you can find it on the Internet.

11.2 Benefits of using the Internet as an information source include:

1. Lots of information from all over the world
2. Access to the “invisible web”, which includes peer-reviewed scholarly articles from experts.
3. Live and recorded video. Actually see what happened from a primary source.
4. Live and recorded audio. Hear what happened from primary sources, such as in an interview.
5. Provides more recent, up to date information, including up to the minute updates.

There are also some disadvantages of using the Internet as a source of information:

1. Lots of information from all over the world. There is a lot of information to sift through, making it difficult and time consuming to find what you need.
2. Anyone with a computer and Internet access can put information on the Internet. Just because information is on the Internet does not make it true. Make sure the information is from a reputable, qualified source before you use it in your assignments.

In- Text Question

The followings are models of information literacy except;

a. The Big 6 IL model: (An Information Problem-solving Process)
b. PLUS Information Skills Model
c. Seven Faces of Information Literacy (Christine Bruce)
d. None of the above

In- Text Answer

The correct answer is option “D”

Summary for Study Session 11

In Study Session 11, you have learnt that:

1. The Internet primarily contains relatively recent information. If you need more historical information, you are likely to find it in print resources and from specialized library databases that provide access to digitized historical information.
2. Benefits of using the Internet as an information source include:
    a. Lots of information from all over the world
    b. Access to the “invisible web”, which includes peer-reviewed scholarly articles from experts.
    c. Live and recorded video. Actually see what happened from a primary source.
    d. Live and recorded audio. Hear what happened from primary sources, such as in an interview.
    e. Provides more recent, up to date information, including up to the minute updates.

Self-Assessment Questions (SAQs) for Study Session 11

Now that you have completed this study session, you can assess how well you have achieved its Learning outcomes by answering the following questions. Write your answers in your study Diary and discuss them with your Tutor at the next Support meeting. You can check your answers with the Notes on the Self-Assessment questions at the end of this Module.

SAQ 11.1 (Tests Learning Outcomes 11.1)

11.1 Discuss the need to evaluate information retrieved from the Internet

SAQ 11.2 (Tests Learning Outcomes 11.2)

11.2 Explain the benefits of using the Internet as information source

Study Session 12: Copyright

Introduction

A copyright is a protection granted to authors of certain types of original works. It is a form of protection provided by the laws to the authors of "original works of authorship, including literary, dramatic, musical, artistic, and certain other intellectual works. A copyright protects a literary, musical, dramatic, choreographic, pictorial or graphic, audiovisual, or architectural work, or a sound recording, from being reproduced without the permission of the copyright owner.

This protection is available to both published and unpublished works. The categories of works addressed in the copyright law include: literary works, musical works, dramatic works, choreographic and pantomime works, pictorial, graphical or sculptural works, motion pictures or audiovisual works, sound recordings, architectural works.

The author of the work is presumed the copyright holder of the work unless the work is the result of a work-for-hire situation, or if the copyright has been transferred to another entity or by other agreement. This study session will provide to you concept of copyright and will also discuss the basic detail of the Nigerian Copyright Act.

Learning Outcomes from Study Session 12

At the end of this Study Session, you should be able to

12.1 Explain the concept of copyright

12.2 Discuss the basic detail of the Nigerian Copyright Act

12.1 The Concept of Copyright

The Copyright Act in Nigeria was promulgated in 1988 as the Copyright Decree (No. 47) of that year. It repealed the Copyright Decree (No 61) of 1970 and with the revision of all existing federal legislation, the Decree was re-designated the Copyright Act and contained in Cap. 68, Laws of the Federation of Nigeria, 1990.

The Act was amended by the Copyright (Amendment) Decree (No. 98) of 1992 and further amended by the Copyright (Amendment) Decree (No. 42) of 1999. It became part of the codification of Nigerian Law done in 2004 and is presently referenced as Cap 28 Laws of the Federation of Nigeria, 2004.

Copyright law and practice in Nigeria is governed by the Copyright Acts of 1970 & 1988, there have also been amendments introduced to the Act in 1992 & 1999 (Esan, 2014). Esan (2014) further affirmed that there are also several treaties and international agreements on Copyright to which Nigeria is a party or signatory such as: The Berne Convention 1886;The Universal Copyright Convention 1952;Rome Convention; Trade Related Aspects of Intellectual Property Rights [TRIPS]; and The World Intellectual Property Organisation [WIPO].

For authors, artists, songwriters, music publishers and composers, photographers and other creators, copyright provides the assurance that they can share their work with the public without the fear of unauthorized use.

It covers book publishing, photography, sound recording, broadcasting, film production etc and gives creators the right to control the ways their materials are used by others i.e. copying, adapting, distributing, performing in public, rental or lending and other communications to the public. According to Martins (2011) the copyright law defines a "work made for hire" as:

1. A work prepared by an employee within the scope of his or her employment; or
2. A work specially ordered or commissioned for use as a contribution to a collective work, as a part of a motion picture or other audiovisual work, as a translation, as a supplementary work, as a compilation, as an instructional text, as a test, as answer material for a test, or as an atlas, if the parties

expressly agree in a written instrument signed by them that the work shall be considered a work made for hire.

Copyright, therefore, frowns at a free-loader .It encourages creativity, labour, craftsmanship, originality, productivity, and innovation. All these are economic bases for the copyright law. The economic bases of the copyright law are necessary to ensure that people who make innovations secure the pride, encouragement, reward and incentive for their labour.

Therefore, copyright law is to secure the benefit of labour to the person who expended it. In furtherance, Schlatter (2003) proposes that from all which is evident and true, the things of nature are given in common man by being master of himself and proprietor of his own person. It should be noted that it is criminal to do any act which will deprive the owner of a copyright work the benefits of his labour.

To this effect, Section 14 of the Copyright Act, prohibits any persons without the authorization of the owner of the copyright from doing or causing any person to perform an act that is contrary to the provision of the copyright act, such as importation and sale of infringing articles (Okwilagwe and Dirisu, 2008).

The Copyright Act is in four parts and forty one sections. Part I addresses issues such as eligibility for copyright protection, duration of copyrights, civil and criminal penalties for copyright infringement and ownership of copyright. Part II addresses neighbouring rights; Part III focuses on the administration of copyrights and addresses issues such as the establishment of the Nigerian Copyrights Council and the appointment of the director and staff of the Council. Part IV covers miscellaneous topics including reciprocal extension of protection, presumptions and interpretations.

In- Text Question

The Internet is the global system of interconnected mainframe, personal, and wireless computer networks that use the Internet protocol suite (TCP/IP) to link billions of devices worldwide. **TRUE or FALSE**

In- Text Answer

TRUE

12.2 Ownership of Copyright

Ownership of copyright is not authorship, though both may exist in the same person (James. 2005).

This is corroborated by Okwilagwe (2000) when he stated that the author of a work is the person conferred with the right to control the doing of any restricted acts in relation to the copyright owner on the other hand is the person conferred with the right to control the author is free to negotiate the ownership of an existing work either by license, by way of assignment, loan, hire and other work done under the direction of a government.

Where a literacy, musical, artistic and cinematograph work is made by an author in the course of his employment in newspapers or magazines house, the proprietor shall in the absence of any agreement be the first owner of copyright in the work (Savas, 2004). The author in this case, however, is noted as the author of such a work while his employers are, therefore, the owners of the copyright done by the author.

On issue of joint ownership, a job done through the combined efforts of more than one person, all the parties involved in the doing of such an intellectual exercise are all accorded copyright status of the work. Persons are deemed to be co-owners if they share a joint interest in the whole or any part of a copyright or have interests in the various copyrights in production consisting

Section 10 of the copyright act of Nigeria describes the ownership of copyright as follows;

1. Copyright conferred by the Copyright Act, shall vest initially in the author.
2. Notwithstanding subsection (6) of section 11 of this Act where a work -
    a. is commissioned by a person who is not the author's employer under a contract of service or apprenticeship; or
    b. not having been so commissioned, is made in the course of the author's employment, the copyright shall belong in the first instance to the author, unless otherwise stipulated in writing under the contract.

3. Where a literary, artistic or musical work is made by the author in the course of his

employment by the proprietor of a newspaper, magazine or similar periodical under a contract of service or apprenticeship as is so made for the purpose of publication in a newspaper, magazine or similar periodical, the said proprietor shall, in the absence of any agreement to the contrary, be the first owner of copyright in the work in so far as the copyright relates to the publication of the work in any newspaper, magazine or similar periodical; or to the reproduction of the work for the purpose of its being so published; but in all other respects, the author shall be the first owner of the copyright in the work.

4. In the case of a cinematograph film or sound recording, the author shall be obliged to conclude, prior to the making of the work, contracts in writing with all those whose works are to be used in the making of the work.

5. Copyright conferred by section 4 of this Act, shall vest initially in the Government on behalf of the Federal Republic of Nigeria, in the State authority on behalf of the State in question, or in the international body in question, as the case may be, and not in the author.

According to Esan (2014) Copyright Act generally gives the owner of copyright the exclusive right to do and to authorize others to do the following:

a. reproduce the work in copies
b. prepare derivative works based upon the work
c. distribute copies of the work to the public by sale or other
d. transfer of ownership, or by rental, lease, or lending
e. perform the work publicly, in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works
f. display the work publicly, in the case of literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural
g. works, including the individual images of a motion picture or other audiovisual work
h. perform the work publicly (in the case of sound recordings) by means of a digital audio transmission

The economic rationale behind the copyright law is to secure economic advantages for owners of copyright in particular and society in general. Miller and Davis (1983) corroborate this by pointing out that "the protection of any person with a valuable talent would tend to confer benefits upon society if that protection encourages the person to practice his skill within the state. This is a useful tool in encouraging the spread of new techniques.

12.3 Copyright Infringement

Copyright infringement is the use of copyrighted material without permission from the copyright holder (Martins (2011). Some unauthorized uses, however, have been given statutory exemptions meaning that under specific circumstances, use of copyrighted materials without permission is not considered infringement.

Under Section 15(1) of the Copyright Act, copyright is infringed by any person who without the license or authorization of the owner of the copyright:

a. Does or causes any other person to do an act, the doing of which is controlled by copyright;
b. Imports or causes to be imported into Nigeria any copy of a work which if it had been made in Nigeria would be an infringing copy.
c. Exhibits in public any article in respect of which copyright is infringed.
d. Distributes by way of trade, offers for sales, hire or otherwise for any purpose prejudicial to the owner of the copyright, any article in respect of which copyright is infringed.
e. Makes or has in his possession, master tapes, machines, equipment or contrivances used for the purpose of making infringed copies of the works;
f. Permits a place of public entertainment or business to be used for a performance in the public of the work, where the performance constitutes an infringement of the copyright in the work, unless the person permitting the place to be used was not aware, and had no reasonable ground for suspecting that the performance would be an infringement of the copyright;
g. Performs or cause to be performed for the purpose of trade or business or as supporting facility to trade or business, any work in which copyright subsists.

12.3.1 Action for Infringement

Under section 16 of the Copyright Act**,** an infringement of copyright suit can only be filed in the Federal High Court in the jurisdiction where the infringement occurred by:

- The owner;
- An assignee; or
- An exclusive licensee of the copyright: Where the owner and an exclusive licensee have concurrent rights of action, none of them may, without leave of court, proceed with the action unless the other is joined as plaintiff or added as defendant.

Some examples of statutory exemptions:

Fair Use of the work. Fair use may be described as the privilege to use the copyrighted material in a reasonable manner without the owner's consent.

In deciding whether a copier's actions were fair, the purpose and character of the copying (certain types of educational copying is allowed); the nature of the original (originals made for commercial reasons are less protected from copying than their purely artistic counterparts); the amount and substantiality of the portion copied (one may not copy the "heart" of a work without the author's permission); and the effect that such copying may have on the market for the original will be considered.

Note that copying may be permitted if it is unlikely to cause economic harm to the original author or work.

This fair use rule recognises that society can often benefit from the unauthorized use of copyrighted materials when the purpose of the use serves the ends of scholarship, education or an informed public (Allen, 2005). For example, scholars must be free to quote from their research resources in order to comment on the material. Examples of activities that may be excused as fair use include: distributing copies of a section of an article in class for educational purposes; providing a quotation in a book review; and imitating a work for the purpose of parody or social commentary.

- Reproductions by libraries and archives;

- ❖ Display of copyrighted materials in a non-profit educational classroom setting, provided the work was legally obtained.

The penalties for copyright infringement can be quite severe. In order to use an excerpt from, or distribute copies of a copyright work, first determine if the intended use clearly falls under one of the statutory exemptions. If not, permission must be obtained from the copyright owner.

This usually involves writing the owner and describing with sufficient detail how the materials will be used. A fee may be required for the use. In the case of printed (books, journals) and musical works, a clearinghouse or publisher will likely be responsible for granting permission. Several sources are available to assist in this process.

Section 18 of the act makes a criminal offence for any person who:

- ❖ Makes, or causes to be made, or has in his possession any plates, master-tapes, machine equipment or contrivance for the purpose of making any infringing copy of any work,
- ❖ Makes or causes to be made for sale, hire or for the purpose of trade or business any infringing copy of a work in which copyright subsists,
- ❖ Imports or causes to be imported into Nigeria more than two infringing copies of such works shall, unless he proves to the satisfaction of the court master tape, machine, equipment or contrivance was for the purpose of making infringing copies of any such works, be guilty of an offence under the Copyright Act and shall be liable upon conviction to a fine of an amount not exceeding N1,000 for every copy dealt with in contravention of this section or to a term of imprisonment not exceeding five years or to both fine and imprisonment.

12.3.2 Nature of Relief Claimable

In an action for infringement, all such relief by way of damages, injunction, accounts of profits or otherwise is available to the plaintiff as is available in any corresponding proceedings in respect of infringement of other proprietary rights. See: section 16 (1).

1. **Damages**: Exemplary, infringement and flagrant Damages; Where in an action, infringement of copyright is proved or admitted, the court may award additional damages if it satisfied that effective relief would not otherwise be available to the plaintiff, having regard (apart from all other factors) to:
    a. The flagrancy of the infringement, and
    b. Any benefit shown to have accrued to the defendant by reason of the infringement - S.16 (4)
2. **Conversion Rights:** All infringing copies of a copyright work or part of it and all plates, master tapes, machines, equipment or contrivance used, or intended to be used for the production of such infringing copies are deemed to be the property of the owner, assignee or exclusive licensee, as the case may be, of the copyright who accordingly may take proceedings for the recovery of possession of those articles or in respect of conversion of them.

In- Text Question

If the owner is not identified, what can you tell about the origin of the site from the address?

In- Text Answer

To find relevant information about the author, there may be need check personal homepages on the Web, campus directory entries and information retrieved through search engines. Also check print sources in the Library Reference area; Who's Who in America, Biography Index, and other biographical sources can be used to determine the author's credentials.

Case consideration for copyright issues

Example 1: Susan is a software engineer at MegaComp, Inc. She develops a computer program that is within the scope of her employment. Susan is the author of the software, but because of the employer-employee relationship, MegaComp, Inc. is the copyright holder.

Example 2: Sulaiman is an artist. Mr. Loaded asks her to design a work to adorn his personal library. He leaves the medium and theme up to Sulaiman. In this case, "work for hire" does not apply and Sulaiman is both the author and the copyright holder. However, Mr. Loaded could obtain the copyright if he received an assignment of copyright from Sulaiman.

Joint Authorship/Ownership - Joint authorship and ownership of a copyrighted work is possible provided at the time of the creation of the work, all authors agree that (1) their contributions will become one larger work, and (2) that they intend to be joint owners of the resulting work.

Summary for Study Session 12

In Study Session 12, you have learnt that:

1. Copyright is the property of more than the author and therefore, no one interest group consciously claims ownership. Copyright laws are not made to enable any group exploit the situation for its own financial gain but to safeguard access to the use of copyright matters by an interested group, provided such an interested group is doing so for lawful purposes.
2. Ownership of copyright is not authorship, though both may exist in the same person (James. 2005).

   This is corroborated by Okwilagwe (2000) when he stated that the author of a work is the person conferred with the right to control the doing of any restricted acts in relation to the copyright owner on the other hand is the person conferred with the right to control the author is free to negotiate the ownership of an existing work either by license, by way of assignment, loan, hire and other work done under the direction of a government.

Self-Assessment Questions (SAQs) for Study Session 12

Now that you have completed this study session, you can assess how well you have achieved its Learning outcomes by answering the following questions. Write your answers in your study Diary and discuss them with your Tutor at the next Support meeting. You can check your answers with the Notes on the Self-Assessment questions at the end of this Module.

SAQ 12.1 (Tests Learning Outcomes 12.1)

12.1 Explain the concept of copyright

SAQ 12.2 (Tests Learning Outcomes 12.2)

12.2 Discuss the basic detail of the Nigerian Copyright Act

References

Federal Republic of Nigeria (2004).*Nigerian Copyright Act, Cap 28 Laws of the Federation of Nigeria.* Abuja: Federal Republic of Nigeria.

Study Session 13: Evaluation of Information Sources

Introduction

To effectively evaluate an information source, you must first determine exactly what you are looking at. There are a number of different categories into which information is divided viz: primary, secondary, popular and scholarly sources. These distinctions will affect how reliable and/or valuable that information might be for any particular information need. Evaluation of information as well as the criteria for evaluation of information sources will be described to you in this study session.

Learning Outcomes from Study Session 13

At the end of this Study Session, you should be able to

13.1 Highlight the criteria for evaluating information sources

13.1 Criteria for Evaluating Information Sources

When you have any item of information you should critically evaluate it to determine its suitability to your needs, and the value of the information. This applies no matter what format it might be in, oral, book, internet, or an article in a major journal. There are five basic criteria to consider.

1. Authority
2. Reliability
3. Currency
4. Completeness
5. Relevancy

Authority: Authority should be judged on both the author and the publisher of the material. Questions such as the following are usually asked to establish the authority of the writer.

a. Is the author's name available?
b. What is the author's training, education, experience in the field?
c. Are there other works by this author in this field? Books, articles?
d. Does the author have a reputation in the field - good or bad?
e. Is the Publisher well known in the field?
f. How much do they publish?
g. Is this a "vanity press" where anyone can have something published, for a fee?
h. Is it a university press?
i. Is the publisher a professional organization or association?

If your information source is a web site, this might be harder to figure out. Is there an author or contact person listed, and is there a contact e-mail address available. It could be at the top of the page with the title, or at the bottom of the page. Generally, you can assume that known publishing houses, university presses, and professional organizations will publish quality materials.

Reliability: Reliability is directly related to Authority, but does address different issues. Reliability in this context relates to the accuracy and treatment of the information. Questions such as the following are usually asked to establish the accuracy of the information.

a. Is the information correct, as far as you can tell? Look at several information sources and compare them.
b. Does the author cite his or her sources? Does it have a complete bibliography?
c. Were primary or secondary sources used?
d. Does it appear to be well edited? Do you see poor grammar, nonstandard language or misspelled words?
e. If your information source is a web site, what is the origin of the source? The domain, or last part of the web address, can tell you something about its origin.

The most common are:

- .edu - an educational institution
- .gov - a government agency
- .com - a commercial entity
- .org - a not-for-profit organization

Objectivity or Bias: Bias is not necessarily a bad thing; we all have our own opinions and biases. But you should be aware of them, and take that into consideration when looking at an information source.

a. Do you detect a bias on the part of the author in the writing?
b. Do the facts support the viewpoint of the author?
c. Is it written from an objective viewpoint, or does it appeal to emotions or biases?
d. Is the information presented as facts, which can be documented, or opinions of the author?

Currency: Is your topic one which is changing quickly, such as medical research or technology, or one which is fairly stable and requires more background information such as history or literature?

a. When was the information published?
b. Can you tell when it was published? If it is not dated, you should be cautious of the information source.
c. Is that information up-to-date? Have new discoveries been made, or have events taken place since the information was published?

If your information source is a web site, the date of publication and/or last updated date are usually found at the bottom of the page.

Scope:

a. Is the information complete, or is it a summary of other work?
b. Is the subject covered completely?
c. What level is the information? Is it advanced, technical, basic information?
d. Who is the intended audience for the material? Is it popular or scholarly?

e. If your information source is a web site, does it include links and are they annotated?

Relevance: While the other criteria are based on facts, things you can see or find out about your information source, this one is a total judgment call. You must know what information you need, what type of information source you need it to come from, and what you will be using that information for (a final term paper, a short composition, your personal knowledge or information, etc.).

You must make the judgment as to the relevancy of your information source. Is the information source relevant to your information need? It is entirely possible, and highly likely that you will find an item which is very reliable, from a very authoritative source, very current, and very complete but not relevant to your topic.

Evaluating Print Sources: There is need to evaluate the print sources to determine the objectivity of the author and the credibility of the work. This evaluation is not to eliminate sources but to understand the context of a work so you can assess how it can inform your argument (Herring, 2004). The basic criteria to analyse print sources include: author's authority, publisher, date of publication, and objectivity of the text.

Author' authority: Critically analyzing sources is all about asking questions about the author. Key questions to ask include:

a. Who is the author?
b. Have you heard of him/her?
c. Do you know if he/she is cited in other books on the subject?
d. Has your instructor mentioned the author's name?
e. Is she affiliated with any institution/college/university (which may or may noted to her authority)?
f. Does the author acknowledge an institution/organizational affiliation?
g. The acknowledgements and preface are good places to get the answers to most of the sequestions.

Publisher: In evaluating the reputation of the publisher, questions relating to those asked about the author should be asked. Information for evaluating the publisher can be found in the first few pages of the book for the copyright and publisher information. Some of these questions include:

a. Is the publisher reputable?
b. Did a university press—for example, UNC Press, UT Press—publish thetext? You can be relatively sure that if a university press published the book, it has been held to a high academic standard.

Date of Publication: If you are researching a current issue, it stands to reason that you want the most up-to-date sources you can find. If your topic is not so current, it is often acceptable to go back ten or even twenty years for your sources. If there is a more recent book on the same topic, make sure that you look at it.

Maybe the author found new evidence that drastically alters the argument of the first book. The page that has all the publisher's information has a copyright date.

Questions to ask include:

a. Has the work been translated?
b. Is there more than one date listed on the page? In that case, you probably have a newer edition. If so, the author wrote most of the book at the time of the first date of publication, although new information may have been added since then.

Objectivity: After analyzing the text, you may find some bias. That does not mean you should discard it. Perhaps the author thanks an anti-homosexual religious organization for funding his research on same-sex marriages. You may be tempted to toss the book aside because you feel that a biased work will not provide the 'facts.'

But you may be missing out on some good evidence. Nosecondary work is going to give you the 'facts.' Secondary sources provide interpretations of primary data. Every interpretation is influenced by the author's context. Find out where the author is coming from and use the evidence accordingly.

For example, the book about same sex marriages funded by the Southern Baptist Convention may provide a clear presentation of the conservative side of the issue. Paired with a book that provides a liberal interpretation, the conservative book

may provide valuable information about the various positions within the discussion.

Evaluating an argument: Analyzing the author, publisher, and age of the text provides a good place to start your analysis. You should not stop there, however. You have to move beyond the appraisal of the text and begin to analyze the content. To do this, you can use the same technique of asking questions and searching for responses.

Applicability: Is the work applicable to your study? The first place to look for answers is the table of contents. A book can have a great title but then can be full of tangential ideas or take an approach that simply may not add to your study. The next place to check out is the index. The index is a wonderful resource for researchers.

You can use it to quickly jump to particular passages if your topic is well defined. More often, you'll scan the index to get a feel for the authority and scope of the text. Often you can learn most of what a book can tell you by reading the preface and the introduction and scanning the table of contents and index.

Argument: Analyzing the argument gets to the heart of a critical approach to your sources. While this task may seem daunting at first, here are some tips and techniques you can learn to make it a lot easier.

a. Is the information supported by evidence?
b. What kinds of sources did the author use?
c. Does the bibliography mention the important books in the field? What is the major claim or thesis of the book or article?
d. Is it clear what the author is trying to prove?
e. What are the primary assumptions on which the author bases the argument's mainclaim?
f. Do you agree with those assumptions?
g. Is the author taking too much liberty in making those assumptions?
h. Read what other scholars have written about this book.

i. Are the reviews generally positive? Do they consider the book useful or important to the field?
j. This is not considered cheating. On the contrary, it will enable you to read the book with your eyes open, so to speak.

Audience: An analysis of the audience can tell you a lot about how much authority a book or article canclaim. Most of what you uncovered in your analysis of the text will inform your judgment of the intended audience. You can find out more by looking at how the book is written and what type of format it is written in.

a. Is the work full of technical terms or graphs?
b. Then the audience maybe academic.
c. Is the language very simple with lots of pictures? Then the audience may be a younger crowd, or the book may be intended for light reading. If you are reading a newspaper or magazine, look at the advertisements.
d. Who does the publisher hope will read the source?

Tone: The tone of a book is how the author represents himself or herself through language. Strongand impassioned language may indicate to you that the author is too emotionally connected to the work to provide an objective analysis. Most academic authors try to appear impartial in their writing by always writing in the third person and staying away from loaded adjectives. Here are some questions you can ask about the author's tone:

a. Does the author's language seem impartial to you?
b. Are wild claims made? Is a lot of emotional language used?
c. Does the author remain focused on the argument?
d. Does he or she jump from point to point without completing any thoughts? Does the author seem objective?
e. Does the information appear to be propaganda to you?
f. Is a specific agenda put forth through the selection of data or the manipulation of evidence? Remember, finding a bias does not necessarily mean you should discard the book. Take it in stride and use it accordingly.

Popular vs. Scholarly: The next thing to consider when evaluating an information source is who the general audience for the material would be. In other words, who

is it written for? Popular sources of information are meant for a general audience, who are not necessarily experts in the field.

They are presented in such a way that anyone can get a general idea of the information being presented. Scholarly Sources of information are meant for a more specialized audience of experts in the field. There are a number of criteria you can use to determine if something is popular or scholarly. Edwards (2010) presents a scale for determining the scholarly or popularity standard of documents as follows:

The treatment of the topic, or writing style

Scholarly	**Popular**
Tend to deal with very specific topics	Tend to deal with more broad topics
Long in-depth articles	Short overview articles
Are usually original research	Not original research
Uses technical language or jargon	Uses plain everyday language

Authors

Scholarly	**Popular**
Experts in the field (Scientists, doctors, professors...)	Journalists, not necessarily experts (magazine staff, freelance writers...)

Audience, or who is the information written for?

Scholarly	**Popular**
Scholars, researchers, practitioners... other members of the field	General public. Any one can read the material and understand it.

Publisher:

Scholarly	Popular
Often a scholarly or professional organization	Commercial companies

Editing:

Scholarly	Popular
Peer-reviewed / Refereed - edited or reviewed by other experts in the field.	NOT peer-reviewed - edited by one editor, or editorial board, for readability and popularity, they are not necessarily experts in any field other than journalism.

Documentation:

Scholarly	Popular
Does include References or Bibliography. Often several pages of references.	No references. Sometimes mentions of experts, but no bibliographies.

Appearance:

Scholarly	Popular
Plain covers, few pictures - maybe some graphs and charts, matte paper, few if any advertisements.	Glossy covers, lots of colour pictures, lots of advertisements

Summary for Study Session 13

In Study Session 13, you have learnt that:

There is no one test which you may use to judge your information's value, but there are a number of clues or criteria, you should use to base a judgment.

Self-Assessment Questions (SAQs) for Study Session 13

Now that you have completed this study session, you can assess how well you have achieved its Learning outcomes by answering the following questions. Write your answers in your study Diary and discuss them with your Tutor at the next

Support meeting. You can check your answers with the Notes on the Self-Assessment questions at the end of this Module.

SAQ 13.1 (Tests Learning Outcomes 13.1)

Describe vividly the criteria for evaluating print information sources

References

Herring, J. (2004) *The Internet and Information Skills: a guide for teachers and school librarians.* London: Facet

Virkus, S. (2003) Information literacy in Europe: a literature review. *Information Research* 8 (4). Available at: http://InformationR.net/ir/8-4/paper159.html.