

# **Information Repackaging and Community Information Services**

**LIS 311**



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

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ISBN 978-021-568-9

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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.

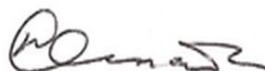
Apart from the responsibility for you to read this course material with others, you are also advised to seek assistance from your course facilitators especially academic advisors during your study even before the interactive session which is by design for revision. Your academic advisors will assist 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.

A handwritten signature in black ink, appearing to read 'Bayo Okunade', written in a cursive style.

**Professor Bayo Okunade**

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# Study Session 1 Information Repackaging and Community Information Services Needs

*Expected duration: 1 week or 2 contact hours*

## Introduction

Welcome to information repackaging and community information services class otherwise known as LIS311. In this course you will be introduced to information repackaging to suit the need of the changing society.

Do you know that in order for humans to stay alive, develop and reproduce, several conditions must be maintained? Essentially, what that means is that the development prevention or violation or destruction of any structures are the consequences of not fulfilling those requirements. One of such requirements is information. Imagine a society where information is scarce! Imagine that you had an assignment or you wanted to prepare for an assessment. You get to the library to source for information to study ahead of your assessment. Getting to the library, you find loads of big books yet the information you seek are not there. How would you feel? Frustrated I guess. That's on the one hand.

On the second hand, imagine that a lawyer in the law court needs a single detail in a given case to save the life of an accused man. Then he visits the library and there are so many books there. He knows the information are in those books however, it will take him at least a day to find it and the judge has given him less than three hours to look for that information. Assuming you are the lawyer, how would you feel?

All of these point towards the importance information is in the society. Information is a driving force especially in contemporary society and libraries exist to provide information to people. They exist to serve as many people as possible, disseminating information, preserving culture, and contributing to intellectual and social life.

In this information age however, information explosion is pushing towards information overload in every sector of the society. Information repackaging is therefore essential such

that it can save time, labour, and cost for the user. In this study session, you will be exposed to the definition, history as well the need for information repackaging in the society. I encourage you to pay attention to information in the blue box as well as attempting all the forms of assessments given to you in this session.

## Learning Outcome for Study Session 1

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

- 1.1. Define and use correctly keywords in **bold**. (SAQ 1.1.)
- 1.2. Identify various forms of information can be packaged. (SAQ 1.2)
- 1.3. Mention (4) four needs of information repackaging. (SAQ 1.3).

## **Keywords: Information Packaging**

### 1.1. Definition and History of Information Repackaging

#### 1.1.1. What is information Packaging?

We begin this study session by looking at what information packaging means. Information has become one of the most important resources in contemporary society. For instance, businesses create markets for their products and services through innovation, quality management, improved customer service, strategic planning and a host of other approaches and techniques. For these efforts to succeed, businesses require access to information that is relevant, current, accurate and comprehensive. Unfortunately, people may have electronic access to thousands of information resources, they often lack the time and skills needed to search for, retrieve, interpret, synthesize and apply these information to their decision making processes the result is that so many professionals often fail to take full advantage of the abundance of information at their disposal. Consequently, librarians need to design information services for such clientele based on diagnosis of their information needs as inferred from

- (i) the roles they play;
- (ii) the structure of such roles in the given work environment or organization; and
- (iii) Their information use patterns, traits and characteristics (Hale, 1986).

This diagnosis is what comes in the form of **Information repackaging**. It is the physical recording, arrangement and presentation of information on a given medium and in and in a given form. It refers to the presentation of information in more understandable, readable,

acceptable and usable forms. It involves the customization of information taking in to account the needs and characteristics of the individual or user groups and matching them with the information to be provided so that diffusion of information occurs. The aim of repackaging is to enhance the acceptance and use of information products and the assimilation and recall of their contents. For instance, Kenya Medical Research Institute is repackaging HIV/AIDS information into News Letters for the business, rural and other marginalised settings.

**Information repackaging** is possible through reformatting and synthesising raw information, combining expertise on a subject with access to relevant information sources, providing training or assistance to a user in accessing an information product. So therefore, the process of repackaging depends on the availability of materials from research institutes, government sources, online services and networks and indigenous knowledge.

To end this part of the discussion, what you should always keep in mind about information repackaging is that it is geared towards producing the right information in the right place, at the right time and in the right form to whoever requires it. This statement should be made a reality and can only be made a reality by specialised information analysis and repackaging.

#### 1.1.2. History of information services and repackaging

Going back to the classical times, science was pursued by a small clique of privileged scholars. This was in the school of thought that developed around great masters in universities and religious centres. Interested students would travel from afar to listen to them. From the beginning, knowledge from those great masters was transmitted simply from the known to the unknown, directly, efficiently and rapidly. The master developed great authorities in their disciplines, for example, Pythagoras - the great mathematician, St Augustine - the great theologian, Plato and Aristotle - the great philosophers.

As science grew, research on similar and related topics increased and people exchanged more information as members of an invisible “college”. They exchanged information through letters, telephone calls and more recently through the internet. Such members of similar colleges:

- Attended similar meetings and conferences
- Used the same language
- Exchanged information and ideas, especially new knowledge.

### **In-text Question**

- Before we go ahead with the history of information repackaging, attempt to answer this question. As a guest librarian in the National Library of Nigeria, sensitize the interns in the library on information repackaging. Tell them what it entails as well as its major objective.
  - You will need to tell the interns that information repackaging involves the customization of information for ease of access and demand. The aim is to enhance the acceptance, assimilation, recall and use of information products. You may refer to section 1.1.1. for more information on this.

*If you have successfully answered the question above, we move on with the history of information repackaging.*

The Second World War made tremendous demands on science and technology. Specialised institutions were started, e.g. U.S. atomic energy commission. Other institutions established dealt with physical sciences, data centres, experimental centres etc. All these centres required well-analysed and evaluative information for their specific views, for example, (KEMRI, KEFRI, ILRI, and ICIPE). During this time, librarians developed as information gatekeepers for the specialised Information. They were consulted on issues regarding the information since they know where to source certain information.

#### **Box 1.1. Essence of Information Repackaging**

People may have electronic access to thousands of information resources but often lack the time and skills needed to search for, retrieve, interpret, synthesize and apply these information to their use. Consequently, librarians need to design information services for such clientele based on diagnosis of their information needs. This diagnosis is what comes in the form of **Information repackaging**. It is the physical recording, arrangement and presentation of information on a given medium and in a given form.

#### 1.1.3. Forms of Information Packaging

After considering what information packaging is as well as its history, it is essential to expose you to different formats in which information has been repackaged. Forms of information repackaging have emerged in the sciences/arts as ways of addressing current information provision challenges. This is also in consonance with the on-going shift in

library and information professions from documents to their content and from collections to their users. The works of Rosenberg (1987), Agada (1995), Iwhiwhu (2008) and Udensi (2010) discussed the forms of information repackaging which is summarized by Ugwuogu (2015) as follows:

- i. Reformatting and synthesizing raw information.
- ii. Combining expertise or consulting on a subject with access to relevant information sources.
- iii. Providing training or assistance to a user in accessing an information product.
- iv. Drama.
- v. Use of songs.
- vi. Story telling.
- vii. Audio – Visual materials.
- viii. Translation *into local languages*.
- ix. Oral transmission.
- x. Group Discussions.
- xi. Poetry.
- xii. Technological tools.

Other media through which information could also be repackaged include: Bibliography on disks, Internet, Wide Area Information Services (WAIS), World Wide Web (www), and Social Media. One key thing you need to know is that, the type of audience and their need may influence the format of presenting the needed information. In study session 2, you will be exposed to different categories of library information users that would determine the presentation format of your information. Before then, carryout this activity.

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**Activity 1.1.**

*Time Allowed is 1 Hour*

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Suppose you have been made the chief information officer of the National library of Nigeria. You are then required to lead a campaign strategy on the importance of reading to primary school children in one of the rural communities in Ibadan. Write out three formats in which you will present your information.

**Activity 1.1. Feedback**

As earlier stated, different information presentation formats work for different categories of information users. Hence, for primary school pupils in a rural area in Ibadan, you may want

to present your information in Drama, Use of songs, Storytelling and or audio – Visual materials formats, depending on the type of information and available materials.

## 1.2. The Need for Information Repackaging

Repacking means the presentation of existing practices in a more desirable, understandable, acceptable and usable form. In today's world, old ideas are repacked and presented in new formats. Educational sector is not an exception. Repackaging occurs in education in order to have better teaching and learning experiences, and for the system to forge ahead with the ever-changing technological software.

Taylor and Rives (1986), quoted in Alexander (1995), have advanced some reasons for repackaging information to include the following:

- ✓ To customise information into such a way that it meets user needs
- ✓ To facilitate dissemination, organisation and communication.
- ✓ To simplify i.e. an annotated bibliography is like a map in the world of information overload.
- ✓ To facilitate interactivity between users, knowledge base, and technology

### **Other reasons why information are repackaged include;**

1. Individual research workers /students /scholar need information not “documents”
2. Information seekers are always interested in a narrowed down field (specialised) that will enable them to “read smart”.
3. Provision of real information to users is key. Users should not grope in darkness.
4. Information services and repackaging is the evaluation of information in its quest to meet specific user-needs.
5. Information is the core of disciplines such as education, agriculture, health sanitation, geo-science, industrial growth, law etc. information enables the researcher to:
  - Reinforce individual searches for solutions
  - Make follow-up on new information
  - Evaluate source, for authenticity and authoritativeness

### **In-text Question**

- As an intern with the National Library of Nigeria, you have been sent to enlighten a group of 200 Level students in the University of Ibadan on the need for information

repackaging. Kindly inform them on why information repackaging is needed in today's society.

- Obviously, if you have been paying attention to what you have been studying, you will recall that one of the key reasons why we need information repackaging is to customise information into such a way that it meets user needs as well as to facilitate dissemination, organisation and communication. You will find more details on this in section 1.2. of this study session.

### Study Session Summary

In this study session, you have learnt that;

2. Librarians need to design information services for such clientele based on diagnosis of their information needs.
3. Information repackaging involves the physical recording, arrangement and presentation of information on a given medium and in and in a given form.
4. It is possible through reformatting and synthesising raw information, combining expertise on a subject with access to relevant information sources, providing training or assistance to a user in accessing an information product.
5. Repackaging occurs in education in order to have better teaching and learning experiences, and for the system to forge ahead with the ever-changing technological software.

### Self-Assessment Questions (SAQs)

Congratulations on your successful completion of this study session. Attempt the following self-assessment exercise poised to measure your grasp of the learning outcomes in this study session.

#### **SAQ 1.1. (Measuring Learning Outcome 1.1)**

What does it mean to repackage information?

#### **SAQ 1.2. (Measuring Learning Outcome 1.2)**

Assuming you are the director of Ibadan Farmers Association and you are required to repackage information from a new research programme on farming maize to the people. Identify five major formats you will likely package the information such that it sells the ideas.

### **SAQ 1.3. (Measuring Learning Outcome 1.3)**

The term packaging makes information sound like a commercial commodity to Mr. Ayodele Barnabas. He assumes that libraries are established to store and disseminate same information to those who require it. So he asked, why does it need to repackage same stored up information again?

### **References**

- British Library (BL) (1988). Public information in rural areas: technology experiment. Phase 1. London: BL. (LIR report; 64)
- British Library (BL) (1989). Public information in rural areas: technology experiment. Phase 2. London: BL. (LIR report; 74)
- Ugwuogu, U.O. (2015). Expectations and Challenges of Information Repackaging in Nigerian Academic Libraries. *International Journal of Learning & Development*, Vol. 5, No. 2

## Study Session 2      The Sources and Users of Information Repackaging

*Expected duration: 1 week or 2 contact hours*

### Introduction

Hello, welcome to study session 2 where we would be considering the users of information repackaging. Information needs are evident in day-to-day's activities. These needs are a driving force and are not restricted to the educated, rather it is for all people engaged in different activities to earn a living. It is fundamental for human development. For instance, a man for a farmer, relevant information about the labour to be hired is mandatory in order to maximize profit and to ensure organizational sustainability. If the farmer out of ignorance due to non or insufficient utilization of information decides to hire labour for his poultry farm, without considering the services of a veterinary doctor, he will definitely be at risk with his poultry farm. On the other hand capital investment without adequate knowledge of proposed business venture can be a waist pipe and regrettable venture. In all there must be adequate and appropriate interaction between the four factors of production including the entrepreneur, of which information is a key player that enhances positive outcome on the long run. The value of information cannot be over emphasized.

With the instances above, you will discover that there are so many uses and need for information and hence, different users of information for different purposes. In this study session, you will be exposed to different categories of users of information that the librarian needs to know and package information for paying close attention to their characteristics. I am going to describe the premises on which information providers can identify users of their information. This is an important exercise to the information provider because it enables him to direct the right information to the relevant recipients. It facilitates communication flow from the source to the recipient. Naturally, one should attempt to identify the target group of

users before one considers the recipients of information. The idea of the “user” brings together and fuses in a single concept, a wide range of individual behaviour. For that reason, it is important that information providers identify their users directly, if they are to benefit from the information. Usually, users will want the information if they can foresee some use of the information.

## Learning Outcomes for Study Session 2

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

- 2.1. Define and correctly use keywords in **bold**. (SAQ 2.1).
- 2.2. Ascertain the functions and importance of information packaging. (SAQ 2.2).
- 2.3. Identify types of information users and their characteristics. (SAQ 2.3).

**Keywords: Information user,**

### 2.1. Functions and Importance of Information Packaging

In study session 1, you learnt that the importance of information in the society cannot be fully emphasized considering that it is a necessity for survival. In that study session, we defined repackaging of information refers to the presentation of information in more understandable, readable, acceptable and usable forms. It involves the customization of information taking into account the needs and characteristics of the individual or user groups and matching them with the information to be provided so that diffusion of information occurs. As an important economic resource, today, information is considered as assuming the same status as other factors of production like land, labour and capital. Madhusudhan (2008) observed that information has been called the fifth need of man, ranking after air, water, food and shelter.

Being in an information age, the success or otherwise of information as a key element in research and development depends on the amount, accuracy and reliability of that information that is available to users. Librarians are therefore expected to repackage information materials which has been tailored to meet the information needs of members of the society. Repackaging then entails a systematic process of adding value to information services. These value added components would include but are not limited to information analysis, synthesis, editing, translating and transforming its symbolic and media formats. In

the next section of this session, you will be exposed to the role of information repackaging in the society.

### 2.1.1. Functions of Information Repackaging

Information repackaging serves a number of functions. It serves;

1. As a tool for saving information.
2. As a systematic and selective sorter of useful information.
3. As a means for a wider information transmission and delivery.
4. As a translation tool.
5. As an opportunity for the practical application of research results.
6. As a means for promoting delivery of relevant information.

### 2.1.2. Importance of Information repackaging at Information Centres

With all you have learnt about information packaging, obviously, it will not be difficult to believe that information repackaging is important. Its importance is such that it helps;

1. To customise information into such format that it meets user needs.
2. To facilitate easy dissemination, organisation, and communication. For instance, when it is repackaged into leaflets, CDs or other formats, it is easier to disseminate to the people in a language they understand. It is deliberately organised such that it meets the needs of the people. And finally, it elicit meaning to the people through communication.
3. To simplify e.g. an automated bibliography is like a map in the world of information overload.
4. To facilitate interactivity among user, knowledge base, and technology

## 2.2. Definition of Information Users and their Types

### 2.2.1. Who are Information Users?

In order to understand information and its users, it is important to identify the users and their varied needs. The term “user” generally denotes member of a library who actually uses the collection and services of the library. They may seek information for the problem of decision-making, problem-solving or the reduction of uncertainty. The functions to which the user puts information are as varied as human motives in general. While some users may utilise information acquired for the above reasons, others may use it to further some

activities, be it mental, private or public. According to Whittaker (1993), a user, therefore, can be defined as a person who uses one or more of library services at least once in a year. Users do not necessarily visit the library premises; they may, for example, telephone for services.

In the next section of this study session, we would consider the different categories of information users. Before then, answer this case study question.

### **In-text Question**

- As a guest librarian in University of Ibadan library, you are required to give a keynote address during the students' conference. The topic the organisers have given you is why it is essential to repackage information in the 21<sup>st</sup> century. During your session, tell the participants in the conference the key roles that information packaging plays in the society that makes it important.
  - As you were earlier told in section 2.1.1 of this study session, information packaging has some functions it plays among which is serving as a tool for saving information as well as a systematic and selective sorter of useful information. You may revisit that section of this study session for more details.

### **2.2.2. Types of users**

There are different ways in which information users are categorised. They may be analysed in ways relating to the administration of the library or users may be divided based on the way they make use of the library services. For example, in an academic library, there may be categories of users such as undergraduates, postgraduates, student users, teaching staff, non-teaching staff, external users, etc. External users here refers to those who are not members of the organisation or community that the library serves.

Other categories of users include; general readers, users with special needs, subject users and non reading users. We would consider them one after the other.

#### **1. General readers**

This type of users makes good use of the reading materials offered by the library. They borrow different documents of various disciplines. The group may be broken down into adults, general readers and children. The adult general readers use the libraries for a variety of purposes, but mainly for leisure needs. This is the category mainly associated with public

libraries. Children readers will also be found in public libraries as well as in school libraries. Children users have both educational and leisure needs which must be provided for, and being children, their needs must be catered for at the levels which are appropriate for them.

**Box 2.1. Importance of Information repackaging at Information Centres**

1. To customise information into such format that it meets user needs.
2. To facilitate dissemination, organisation, and communication. For instance, when it is repackaged into leaflets, CDs or other formats, it is easier to disseminate to the people in a language they understand. It is deliberately organised such that it meets the needs of the people. And finally, it elicit meaning to the people through communication.
3. To simplify e.g. an automated bibliography is like a map in the world of information overload.
4. To facilitate interactivity among user, knowledge base, and technology

**2. Subject readers**

This type of users concentrates their use of library materials on a subject field. They are working in or studying; students are included in this category. Students form a high proportion of the users of academic libraries. Their needs for this type of library are linked to the courses they are taking. Subject specialists such as chemists and doctors, lawyers and engineers are mainly found in special libraries. Usually, special libraries are geared towards satisfying only the need of users to which they were meant.

**3. Users with special user needs**

Users placed in this category are those who have impairments. The impairment may be physical, visual or hearing. Physically impaired sub groups who use wheel chairs have the ability to access material visually, but may have difficulty physically accessing them, unless special help and services are made available to them. The visually impaired users need special format for reading such as braille, audio-cassettes (talking books); they can access materials through computers using JAWS software. The hearing impaired users do not have the major physical problem. They can see, walk to the shelves, select books, but they have a problem of communication with the member of staff who serves them. They may use a sign language, but there may be nobody within the staff who knows the sign language. Their problem is either psychological or social.

#### **4. Non-reading user**

This type does not make use of any reading material. They are made up of users who make use of library materials, but not documents. Such users are those who visit the library to use computers, audio-visual materials, or listen to a lecture. They may enter the library to view exhibitions mounted by an organisation to promote their material. Although they are not using the reading material, yet they are users.

---

#### **Activity 2.1.**

*Time Allowed is 1 Hour*

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At this point before we go to the final section of this study session, pick up your diary and write out at least three major users of University of Ibadan library.

#### **Activity 2.1. Feedback**

Note that the University of Ibadan Library is an academic library and in an academic library, there may be categories of users such as undergraduates, postgraduates, student users, teaching staff, non-teaching staff as well as other external users. Refer to section 2.2.2. for a clearer view.

#### 2.2.3. Knowing users

Information providers cannot offer effective services unless they know their users and their requirements. It is advisable that library and information providers spend time getting to know all those who may use their services so as to find out their particular needs. Library and information staff needs to know the answers to the following questions:

- Who are the people they serve?
- What information needs do they have?
- What use if any do they make of libraries information centres to satisfy their needs?
- What alternative sources do they use?
- How satisfied are they with services provided by the library/information centre.

Getting to know users, as a whole is the starting point for the staff. The first task to be done is to bring together background information on the library's community profile i.e. all those eligible to use the library. In public libraries, community profiles are drawn up in order to find out their background information. In academic libraries, profiles would include details about the institution, its history, its locality, its site and buildings, its administrative structure, its staff and students, its courses, its future plans, etc.

### **Box 2.2. Knowing Your Library Users**

Getting to know users, as a whole is the starting point for the staff. Library and information staff needs to know the answers to the following questions:

1. Who are the people they serve?
2. What information needs do they have?
3. What use if any do they make of libraries information centres to satisfy their needs?
4. What alternative sources do they use?
5. How satisfied are they with services provided by the library/information centre.

In conclusion, it is imperative that information providers get to know their information users. This effort consequently brings positive effects on the overall provision of information, proper knowledge of users by information providers lead to effective and more satisfactory services.

### **Study Session Summary**

In this study session, you have learnt that;

1. The users are members of a library who actually use the collection and services of the library.
2. Also, types of information repackaging users are general readers, subject readers. While users with special needs are the physical, visual or hearing impaired.
3. Information providers cannot offer effective services unless they know their users and their requirements.

### **Self-Assessment Questions (SAQs)**

Congratulations on your successful completion of this study session. Attempt the following self-assessment exercise poised to measure your grasp of the learning outcomes in this study session.

#### **SAQ 2.1. (Measuring Learning Outcome 2.1)**

What is the synonym for the word **user** as used in this study session?

#### **SAQ 2.2. (Measuring Learning Outcome 2.2)**

Students of Department of library, archival and information studies, University of Ibadan are having a tutorial class ahead of their end of the year assessment. As their tutorial teacher, tell them why information repackaging is important in the society today.

**SAQ 2.3. (Measuring Learning Outcome 2.3)**

The University of Ilorin law library would likely be used by what category of users?

**SAQ 2.4. (Measuring Learning Outcome 2.3)**

The library for blind students would likely be used by what category of users as identified in this session?

**SAQ 2.5. (Measuring Learning Outcome 2.3)**

Identify 3 category of information users that you would likely find in the National Library of Nigeria.

**References**

- Agada, J. (Forthcoming). Information repackaging. In Achleitner, H. (Ed.), Information Brokering. Norwood NJ: Ablex.
- Agada, J. (Forthcoming). Information repackaging. In Achleitner, H. (Ed.), Information Brokering. Norwood, NJ: Ablex

## Study Session 3 Strategies for Information Repackaging At Libraries and Information Centres

*Expected duration: 1 week or 2 contact hours*

### Introduction

Welcome to study session 3 in LIS 311. In session 1 and 2, we have discussed the meaning, functions as well as importance of information repackaging. So by now, it is assumed you know that information repackaging is a way of improving library services, particularly in this era of electronic information and you agree that it is very essential for information centers to have a thorough knowledge of the target audience as their knowledge will influence the message and the message carrier.

Generally, libraries served repackaging information in different ways. Some of these ways according to librarians include; translation, selective dissemination of information, etc.

Current awareness services plays a major role in repackaging of information and providing current, new repackaged information to the user in the library. In this study session, our attention would be on focused on the strategies for repackaging information and we would pay very close attention to Current Awareness Service. I employ you to pay attention to information in the bluebox as well as ensure you attempt every form of assessment given to you.

### Learning Outcomes for Study Session 3

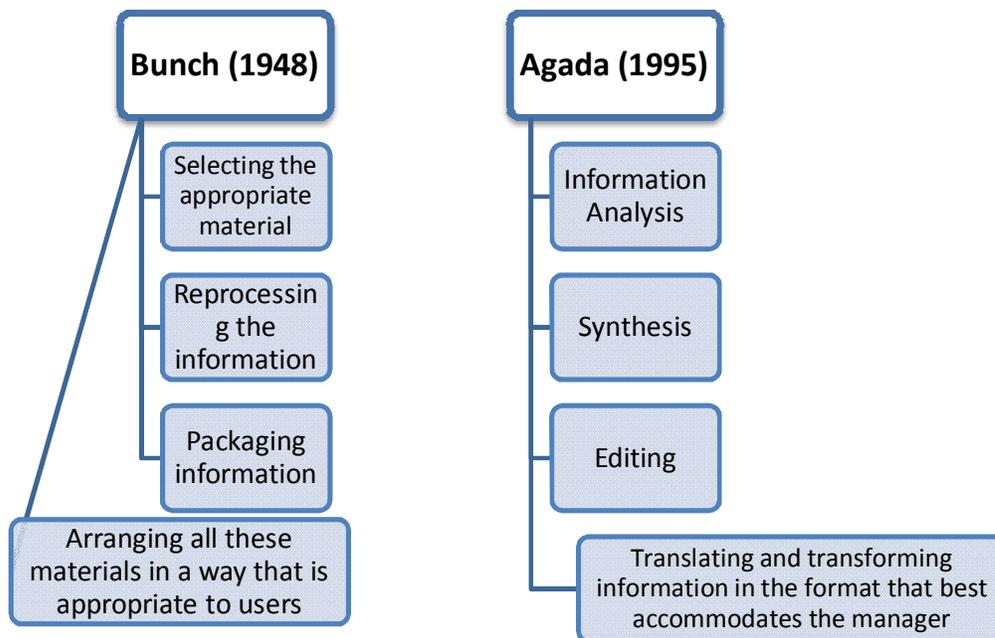
At the end of this lecture, you should be able to:

- 3.1. Ascertain Repackaging Process. (SAQ 3.1, SAQ 3.2).
- 3.2. Discuss current awareness services (CAS). (SAQ 3.3, SAQ 3.4).
- 3.3. List the steps in CAS. (SAQ 3.5).

### 3.1. Repackaging Process and Methodology

In study session 1, you learnt that information packaging is a process. A process that involves the customization of information taking in to account the needs and characteristics of the individual or user groups with the aim of enhancing the acceptance and use of information products.

What exactly then makes information repackaging a process? Information packaging is a process as it involves a set of activities aimed to generate a new form of information. Bunch (1984) developed the process of information packaging then enhanced by Agada (1995). The comparison of information packaging process according Bunch (1984) and Agada (1995) is shown in Figure 3.1

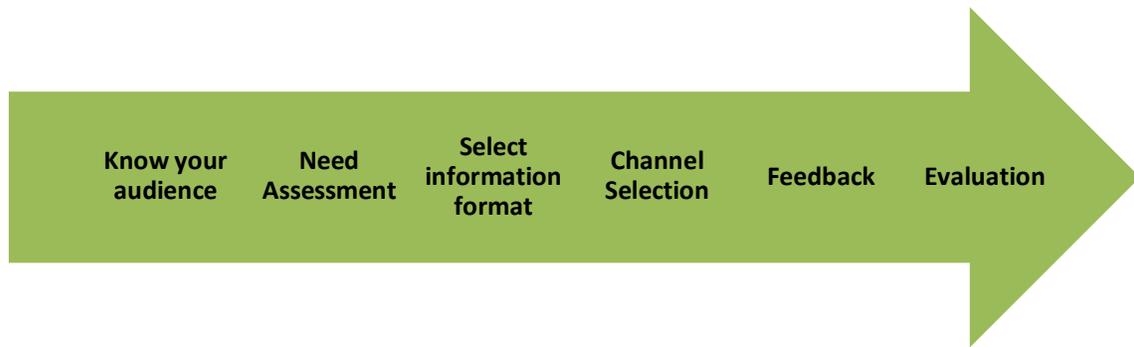


**Figure 3.1. Comparison of information packaging process according Bunch (1984) and Agada (1995)**

*(Source: Abrigo and Manglal, 2009).*

Both Bunch (1985) and Agada (1995) proposed the general process of information packaging, which begins from collecting the material until presenting in a new form.

Generally however, to produce the packaging of information in accordance with the target user, certain activities as shown in Fig 3.2 should be carried out.



**Fig 3.2. Process of Information Repackaging**

As shown in figure 3.2 the first process or step to be considered in IR is specified knowledge of the target audience. The group to be served should be known. Are they undergraduates/postgraduate students or lecturers/ researchers?

Secondly, what is the recurring pattern of the information needs of the target group? A needs assessment could be undertaken either through interviews, questionnaires, observation or during question negotiation periods at the reference desk. Thirdly, an appropriate format to repackage the information should be selected or chosen. Fourthly, the channel of dissemination is very important. It should be decided whether the information should be in soft or hardcopy. If the researchers are in rural areas where electric power supply is not steady, what else could be done to satisfy their needs?

Next, a feedback system should be planned. This is to judge the success or otherwise of the repackaged information. Such a process could help in redesigning or reformatting or restructuring what has been produced for better acceptability.

The last thing is, the information to be repackaged should be properly evaluated for possible adjustment. The accuracy, completeness, simplicity, readability and clarity of purpose must be thoroughly examined.

Essentially, the pains-taking procedure is to ensure that an attractive package that will lure users closer to the library by retaining their trust and confidence is produced.

In the next section of this study session, we will consider the methods of information repackaging. Before then, answer this question.

### **In-text Question**

- Why do you think it is important to know your audience first in the repackaging process?

- In the process of designing the repackaging, it is essential to have specific information about the target audience, the essence is to collect, process and apply the gathered information as a guide to the design and repackage of the information according to user demands.

If you have answered successfully, we now move on to the methodology of information repackaging includes:

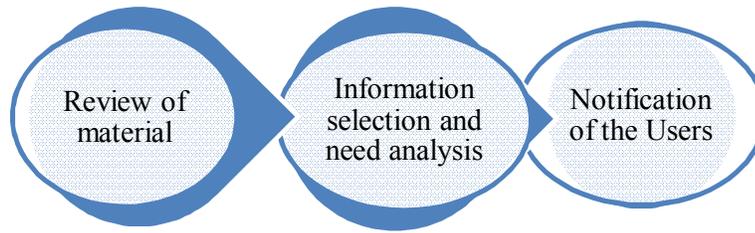
1. **Preparation of the first brief:** the first transitory brief consists selective information prepared by information experts
2. **Analysis of the brief:** the first brief should analyse with reference to the target audience, the information content, the budget of the message carrier as well as the life cycle of the carrier. The repackaged product should give sufficient description on the required information topic and communicate to the target audience.
3. **Design criteria for the message carrier:** the message carrier should be such that it attracts the readers.
4. **Selection of the message carrier:** the message carrier should be designed with several shapes and sizes.
5. **Production of the message carrier:** the message carrier should be well-designed before producing it.
6. **Feedback system planning:** it is important to design a feedback system to judge the success of the repackaging information.

### 3.2. Current Awareness Services (CAS)

This is a system for reviewing newly available documents, selecting items relevant to the need of an individual or group and recording them so that notification may be sent to those individuals or groups to whose needs they are related. Current Awareness Services includes review of publication immediately upon receipt, selecting information pertinent to the programme of the organisation served, and not individual items to be brought to the attention, by one man or another of those persons to whose work they are related.

#### 3.2.1. Steps in CAS

The steps in the provision of CAS are given in figure 3.3.



**Fig 3.3. Steps in CAS**

**Box 3.1 Methodology of Information Repackaging**

The methodology of information repackaging includes the following points:

1. Preparation of the first brief
2. Analysis of the brief
3. Design criteria for the message carrier
4. Selection of the message carrier
5. Production of the message carrier
6. Feedback system planning

As shown in the fig. 3.3. CAS involves the first step in CAS involves reviewing, recording or scanning the document or material immediately upon receipt.

Then you move on to select information and record individual documents relevant to the programme of the individual of the organisation being served. This may be done by comparing the document/information with the need of users being served.

And finally, send notification to the users about items or information of interest to them.

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**Activity 3.1**

*Time Allowed is 1 Hour*

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Current Awareness Services key activities geared towards keeping library users up to date with the latest professional literature in their different fields of interest. In your diary, write out the three steps involved in the Current Awareness Services.

**Activity 3.1. Feedback**

As earlier stated, the current awareness process begins with the review of material and ends with the stage of notification of the Users. For further details, you may read through section 3.2.1.

### 3.2.2. Techniques for providing CAS

1. Telephone calls to individuals,
2. Recording individual reference and forwarding them to the concerned persons,
3. Periodical routing,
4. Maintaining the card file of references of information manually or automatically,
5. Issuing of library bulletins
6. Circulation of duplicated contents of periodicals literature.

#### **Box 3.2. Current Awareness Services (CAS)**

“CAS is a system of service which ensures that all the current information likely to influence the progress of research worker or a research team is made available to them at the right time and in convenient form”

In conclusion, Current awareness alerts users to the availability of latest publications in information centres. It may be user-oriented e.g. duplication of contents lists, routing of books, periodicals, and current awareness display; or user-Community-oriented e.g. accession acquisition list and bibliographies. Information repackaging activities tailored to the need of user communities, as well as to the uses for which they are intended.

### Session Summary

In this session, you have learnt that;

1. Information packaging is a process as it involves a set of activities aimed to generate a new form of information.
2. Current Awareness Services is a system for reviewing newly available documents, selecting items relevant to the need of an individual or group and recording them so that notification may be sent to those individuals or groups to whose needs they are related.
3. Current Awareness Services includes review of publication immediately upon receipt, selecting information pertinent to the programme of the organisation served, and not individual items to be brought to the attention, by one man or another of those persons to whose work they are related.

### Self-Assessment Questions (SAQs)

Congratulations on your successful completion of this study session. Attempt the following self-assessment exercise poised to measure your grasp of the learning outcomes in this study session.

#### **SAQ 3.1. (Measuring Learning Outcome 3.1)**

At what repackaging stage do you need to consider your audience peculiarities and why?

#### **SAQ 3.2. (Measuring Learning Outcome 3.1)**

At what stage of the repackaging process are you required to take feedback and what is the essence of taking feedback?

#### **SAQ 3.3. (Measuring Learning Outcome 3.2)**

What is the essence of CAS?

#### **SAQ 3.4. (Measuring Learning Outcome 3.2)**

As the head of the Information Service center of the Nigerian Legal library, new materials have just arrived, what techniques you will utilise to inform users that these materials have arrived?

#### **SAQ 3.5. (Measuring Learning Outcome 3.3)**

Also, as the head of the information service team, using the Current Awareness Services strategy, what three steps would the materials go through such that users would know those materials have arrived?

### References

- Agada, J. (Forthcoming). Information repackaging. In Achleitner, H. (Ed.), *Information Brokering*. Norwood, NJ: Ablex.
- Cassel, K. and Hiremath, U. (2006). *Reference and information services in the 21 century: an introduction*. London. Neal-Schumann Publisher.

## Study Session 4 Tools of Current Awareness Service (CAS): Acquisition List and Bibliography

*Expected duration: 1 week or 2 contact hours*

### Introduction

Welcome to study session 4 where we would be considering some of the tools of Current Awareness Services with particular attention to the Acquisition list and Bibliography.

In study session 3, you learnt about the Current Awareness Services (CAS). You learnt that the purpose of a current-awareness service is to inform the users about new acquisitions in their libraries. Librarians therefore utilise diverse methods of informing their clientele of new materials arrival. For instance, public libraries have used display boards and shelves to draw attention to recent additions, and many libraries produce complete or selective lists for circulation to patrons. Some libraries have adopted a practice of selective dissemination of information (sometimes referred to as SDI), whereby librarians conduct regular searches of databases to find references to new articles or other materials that fit a particular patron's interest profile and forward the results of these searches are sent to the patrons.

Current awareness service also provide bibliographical services as a list of current books and articles written by a specific author or issued by a specific publisher. The list provides reference particular to a subject, covering materials on such a subject for a given period of time. E.g. bibliography of audio-visual aid used for teacher training. So in this study session, you will learn about what bibliography means, its uses as well as the different types of bibliography that are used in the library. I encourage you to pay attention to information in the blue box as well as ensure you attempt every assessment exercise given to you in this session.

### Learning Outcomes for Study Session 4

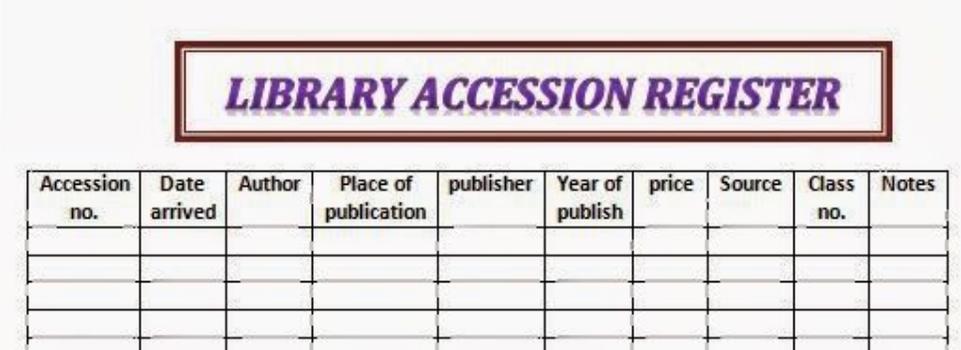
At the end of this lecture, you should be able to know:

- 1.1. Define and use correctly keywords in **bold**. (SAQ 4.1.).
- 1.2. Describe the acquisition list. (SAQ 4.2.).
- 1.3. Ascertain the uses of bibliography. (SAQ 4.3.).
- 1.4. List and explain the types of bibliography. (SAQ 4.4. SAQ 4.5).

**Keywords: Accession List, Bibliography**

#### 4.1. Accession or acquisition list

We will begin this session by discussing the accession or acquisition list. The accession list serves as current guide to recently received literature and being issued on regular basis, e.g. bi-weekly, monthly, quarterly and so forth, depending on the amount of materials received on current library trends. If you look closely at fig 4.1, you will discover that the accession list contain different types of information such as the author name, title, date and the place of the publication, ISBN etc.



**LIBRARY ACCESSION REGISTER**

Accession no.	Date arrived	Author	Place of publication	publisher	Year of publish	price	Source	Class no.	Notes

**Accession or Acquisition List**

*Image Source: Library and Information science Network*

#### 4.2. Definitions and Use of Bibliography

##### 4.2.1. What is Bibliography?

You could be wondering what a bibliography is. Bibliography is a list of written, printed or produced record of civilisation, that includes information about books, serials, pictures, films, maps, records, manuscripts, and any other media of communication. The bibliographic data is considered the content of a library catalogue, union catalogue, or abstract and indexing service, used to connect library users with resources that will fulfil their information needs.

In general, a bibliography should include:

- the authors' names
- the titles of the works
- the names and locations of the companies that published your copies of the sources
- the dates your copies were published
- the page numbers of your sources (if they are part of multi-source volumes)

#### 4.2.2. Use of Bibliographies

Library staff use bibliographic data in their daily work for a variety of purposes. Reference librarians interact with bibliographic data for research and in the creation of subject guides. Bibliographic data is used in collection management for inventory control and collection development, via reports based on the data. In summary, bibliographic resources are used to;

- a) Support background information in research projects.
- b) Reference tools in training or classroom teaching
- c) Information tool by which to make users aware of recent materials on a particular subject.
- d) Information tool by which to advise librarians of the availability of new materials which they may want to acquire.

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#### **Activity 4.1.**

*Time Allowed is 1 Hour*

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In the next section of this session, we would consider the different types of bibliography. Before then, pick up your diary and write out at least five types of information you are likely going to find in the accession or acquisition list.

#### **Activity 4.1. Feedback**

You will discover that the accession list contain different types of information such as the author name, title, date and the place of the publication, etc. you may refer to Section 4.1 especially fig 4.1 for further details on this.

#### 4.2.3. Types of Bibliography

There are various types of bibliography depending on the nature of the book or document in which they are to appear. A bibliography may list all the works consulted by a writer, as well as others the writer believes readers will find useful, or it may be restricted to a listing of works actually cited in the text. In this section of the session we would consider abstractive bibliography, annotated bibliography, national bibliography and cooperative bibliography.

#### **Box 4.1 Contents of the Bibliography**

In general, a bibliography should include:

1. the authors' names
2. the titles of the works
3. the names and locations of the companies that published your copies of the sources
4. the dates your copies were published
5. the page numbers of your sources (if they are part of multi-source volumes)

Starting with abstractive bibliography, this type of bibliography provides descriptions and abstracts of publications. There are three types of abstract including indicative, informative and evaluative abstracts. Indicative abstract provides a short summary to alert readers of publication, it highlights main points in order to help readers decide whether to refer to the original publication or not. Informative abstract is a condensation of publication content; it can be used as a reference in place of an original publication. Evaluative abstract, in addition to being a short summary, provides short review of publication, entries arranged alphabetically by author, institutions, or other main entries; the general format includes descriptors and the source of the materials.

**Annotated Bibliography** on the other hand focuses on a special topic for a more purposive use or it may be of a more general nature to update user's knowledge of current literature. This contains very short notes called annotations for each entry. That is it contains comments made by the author concerning the scope, usefulness or other features of the works listed.

#### **In-text Question**

- You have been invited to the University of Ibadan Library to sensitise its workers on the essence of bibliography. You have spoken to them on the types of bibliography. Further enlighten them on the different types of abstractive bibliography.
  - This type of bibliography provides descriptions and abstracts of publications and there are three types of abstract including indicative, informative and evaluative abstracts. The indicative abstract provides a short summary to alert readers of publication. You may refer to section 4.2.3 for further details on this.

#### **Box 4.2. Types of Bibliography**

There are various types of bibliography depending on the nature of the book or document in which they are to appear. Some of them include;

1. Abstractive bibliography,
2. Annotated bibliography,
3. National bibliography and
4. Cooperative bibliography.

Earlier, you learnt that the different types of bibliography to be studied in this section include abstractive bibliography, annotated bibliography, national bibliography and cooperative bibliography. We have discussed abstractive and annotated bibliography. We move on to National bibliography. This type of bibliography provides information of publication which is being published in a particular country. It is used as a basic reference tool by officials and other professionals as well as in libraries and information centres for providing information on each publication of the country. Indian National Bibliography (INB) and British National Bibliography (BNB) are examples of national bibliography.

Co-operative bibliographical bulletin puts together a list of publications on similar or closely related subject matters, available in libraries on various topics e.g. population Education Activities (PEA), the ministry of education gathers bibliographic contribution on population education from the ministry of health, social welfare, and come out with a cooperative bibliographical bulletin as a form of repackaged information.

### Study Session Summary

In this study session, you have learnt that;

1. Accession or acquisition list serves as current guide to recently received literature and being issued on regular basis.
2. Bibliography is a list of written, printed or produced record of civilisation, that includes information about books, serials, pictures, films, maps, records, manuscripts, and any other media of communication.
3. Library staff use bibliographic data in their daily work for a variety of purposes.
4. There are different types of bibliography including abstractive bibliography, annotated bibliography, national bibliography and cooperative bibliography.

### Self-Assessment Questions (SAQs)

Congratulations on your successful completion of this study session. Attempt the following self-assessment exercise poised to measure your grasp of the learning outcomes in this study session.

#### **SAQ 4.1. (Measuring Learning Outcome 4.1)**

Differentiate the Accession List from Bibliography

#### **SAQ 4.2. (Measuring Learning Outcome 4.2)**

What are the types of information you are likely going to find in the accession list?

#### **SAQ 4.3. (Measuring Learning Outcome 4.3)**

As a guest librarian in the National Library, brief the interns on the various uses of bibliography.

#### **SAQ 4.4. (Measuring Learning Outcome 4.4)**

What type of bibliography contains short notes or comments made by the author concerning the scope, usefulness or other features of the works listed?

#### **SAQ 4.5. (Measuring Learning Outcome 4.4)**

A type of bibliography that contains a list of documents and sources published in Nigeria and with different Nigerian Languages is called what?

### References

D. E. Riggs, The influence of information technology infrastructure and policies on library services in developing countries. In K. P. McCook, B. J. Ford and K. Lippincott (eds.),

Libraries: Global Reach & Local Touch Chicago and London: American Library Association, 1998, 150-156.

## Study Session 5      Selective Dissemination of Information (SDI)

*Expected duration: 1 week or 2 contact hours*

### Introduction

Welcome to study session 5. So far, we have discussed at the various strategies used in information repackaging. In study session 3, we looked at the Current Awareness Services (CAS) and in study session 4, we looked at the acquisition list as well as bibliography which are CAS tools. In this session, you would learn about the concept of selective dissemination of information which is one of the strategies of information repackaging for users.

Selective dissemination of Information is a service within the organisation which concerns itself with the channelling of new items of information from various services to those points within the organisation where they usually serve someone's interest." SDI is a modification of CAS and it is unrivalled for its effectiveness in calling users' attention to those few items found in current literature, which are directly relevant to the practice of their professions and the pursuit of their interests. SDI provides anticipatory services in the sense that the most useful information is identified based on the pre-determined needs of users. In this study session, you will be exposed to the procedures of selective dissemination of information. You are hereby advised to ensure you pay attention to information in the blue box as well as attempt all forms of assessment given to you.

### Learning Outcomes for Study Session 5

At the end of this lesson, students should be able to:

- 5.1. Discuss selective dissemination of information. (SAQ 5.1).
- 5.2. Ascertain the traditional procedures of SDI Services. (SAQ 5.2).
- 5.3. Describe the Conceptual Workflow of SDI Services. (SAQ 5.3, SAQ 5.4.).
- 5.4. Identify the guidelines for preparing Online SDI. (SAQ 5.5).

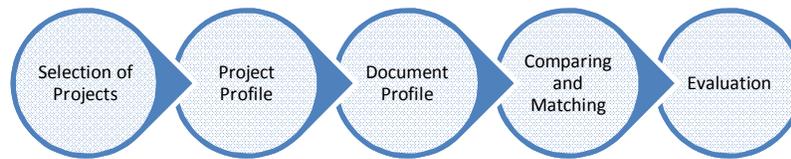
## 5.1 Selective Dissemination of Information

**Selective dissemination of information** ("SDI") refers to tools and resources used to keep a user informed of new resources on specified topics. SDI services pre-date the World Wide Web, and the term itself is somewhat outdated. Contemporary analogous systems for SDI services include alerts, current awareness tools or trackers. These systems provide automated searches that inform the user of the availability of new resources meeting the user's specified keywords and search parameters. Alerts can be received a number of ways, including email, RSS feeds, voice mail, Instant messaging, and text messaging.

**Selective dissemination of information** was a concept first described by Hans Peter Luhn of IBM in the 1950s. Software was developed in many companies and in government to provide this service in the 1950s and 60s, which allowed distribution of items recently published in abstract journals to be routed to individuals who are likely to be interested in the contents. For example, the system at Ft. Monmouth automatically sent out (by mail) a different set of abstracts to each of about 1,000 scientists and engineers in the army depending on what they were working on. The selection was based on an "interest profile," a list of keywords that described their interests. In some organizations, the 'interest profile' was much more than a simple list of keywords. Librarians or information professionals conducted extensive interviews with their clients to establish a fairly complex profile for each individual. Based on these profiles, the information professionals would then distribute selectively appropriate information to their clients. This labour-intensive operation, while initially costly, over time was made less so. A survey at the time (1970s) indicated that a large number of projects were affected by the SDI service. The software was developed by Edward Housman at the Signal Corps Research Laboratories Technical Information Division.

### 5.1.1 Traditional Procedures of SDI Service

Every library is not equipped with computer particularly in developing countries. Mechanical operation is also a costly matter. No doubt that there are various limitations in the manual operation of SDI system but it is justified also while planning the SDI services. However, to operate SDI service manually, the following steps as presented in figure 5.1 are carried in operation.

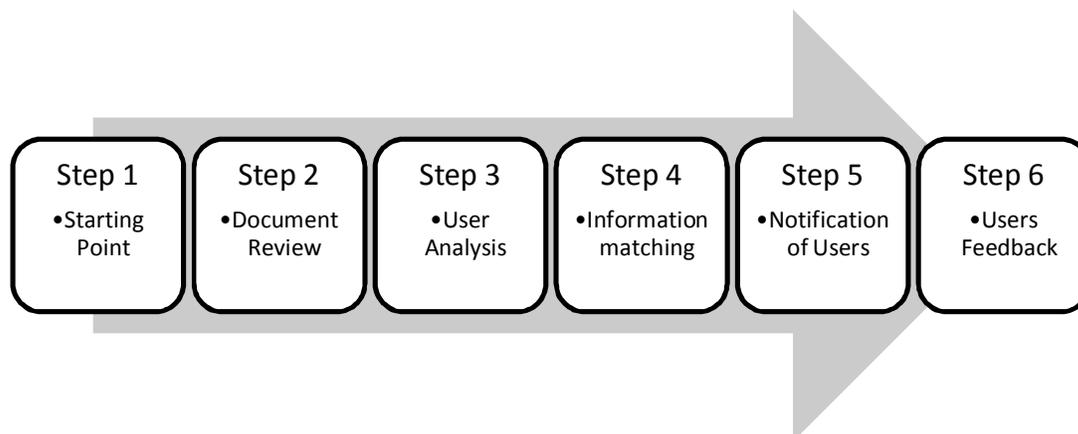


**Fig 5.1. Traditional SDI Procedure**

As presented in fig 5.1, the first stage of planning SDI service is the selection of important projects to be covered by SDI system. Projects should be selected on preferential basis. In the second stage, users' interest should be recognized and a project profile should be prepared. When projects are selected and profile is prepared, documents should be scanned and a document profile prepared. When project profile and document profile are prepared, both the profiles should be compared and matched. The system should be evaluated periodically.

#### 5.1.2 Conceptual Workflow of Traditional SDI Service

The sequence of functioning or workflow including the main activities in manual SDI service is explained in steps. The execution of manual SDI service involves some sequential operations which are explained below



**Fig 5.2. Workflow of Traditional SDI**

As shown in figure 5.1, the workflow has 6 steps. In step 1 which is the Starting point is where the librarian Receives the new library arrivals/documents. It also involves the Receiving of user profile. When this is done, the librarian then moves to the second step. This step involves, Scanning the document, Specifying and recording bibliographical description of the new items. Scanning the new documents in terms of subject matter and setting up appropriate subject headings and feasible number of keywords with appropriate

page references. Scanning new and old items in terms of user's interest and preparing index file for those items by selecting significant key terms relevant to users' subject interest. When these are done, you move to step 3. In step 3, the librarian carries out four major activities including;

- Analysis of the user's need.
- Careful study of user profile.
- Asking user through an unstructured interview regarding his need.
- Preparing a search profile by selecting appropriate possible terms for searching

---

**Activity 5.1.**

*Time Allowed is 1 Hour*

---

Before we move on to step 4, attempt to carry out this activity. You have been invited to have an academic chat with interns at the National Library of Nigeria. Inform them of the procedures involved in the manual operation of the SDI.

**Activity 5.1 Feedback**

As presented in fig 5.1, the first stage of planning SDI service is the selection of important projects to be covered by SDI system. Projects should be selected on preferential basis. In the second stage, users' interest should be recognized and a project profile should be prepared. For more understanding, you may look through section 5.1.1.

So far, we have considered the first three steps involved in the traditional SDI work flow. We said the first step involves the arrival of the new materials as well as the profiles of users. In the second stage, the materials are reviewed and in the third step, the needs of the users are analysed such that they are matched with the right information in the fourth step. Essentially therefore, the fourth stage involves;

- Information matching action.
- Study of the search profile.
- Study of the document index file.
- Study of the bibliographic description of the concerned documents.

After the analysis of users needs and matching them with the right information that satisfies their needs, the users are then fed with the details of the materials that they may require. This is usually in step 5 which involves;

- Notification to user.
- Sending a bibliographical list of publications relevant to user's need.
- Assessing preliminary notification received by concerned user.

Now, communication is never complete until there is a feedback. This is usually the essence of step 6 in the workflow. It involves;

- User's response to information center (IC).
- User may request for text information of specified items in detail after assessing the notified items.
- User may request for profile modification or change, if he doesn't satisfy with the notified items.
- User may request for additional new interest, if he wants more information than the notified items.
- Finally, the information center will try to modify or attach user's additional need and thus the operation is going on as before.

#### **Box 5.1. Traditional Procedure of SDI**

The first stage of planning SDI service is the selection of important projects to be covered by SDI system. Projects should be selected on preferential basis. In the second stage, users' interest should be recognized and a project profile should be prepared. When projects are selected and profile is prepared, documents should be scanned and a document profile prepared. When project profile and document profile are prepared, both the profiles should be compared and matched. The system should be evaluated periodically.

In the next section of this study session, we would consider the online procedures of SDI services. Before then, attempt this question.

#### **In-text Question**

- At what step in the traditional work flow of SDI do you carry out users need analysis as well as a study of users' profile?
  - In the third step of the SDI work flow, you carry out users need analysis as well as a study of users' profile. You may read through section 5.1.2 again for clarifications.

### 5.1.3 Online SDI Service

SDI is a current awareness mechanism through which the individual information user can expect to receive regular notification of new literature and data in accordance with his/her statement of interest or profile. But this task is very difficult to perform due to accelerated growth of information publications in every moment. A computerized information system opens a number of possibilities with respect to current awareness services. One of the most significant innovations was the SDI program. SDI is a service of providing textual information which involves graphics, charts or images, etc. in addition to text. The primary intention of a researcher in getting SDI service is to find out the specific relevant items of information. For this, they require an exact matching mechanism. However, in text database system there is generally no option for exact matching of information due to increased chance of words co-occurring in a document without really being related to each other, instead approximate matching is available in this type of database. So it is quite a problem for the researchers of science, social science and humanities to manage exact information from a volume of information in a text database that causes hindrance in their research work. Therefore, a system should be developed, so that the researchers can find out their interested information exactly and pin-pointedly. This is possible by introducing an exact matching technique with text database systems. An information filtering technique can effectively solve this problem and prevent information overload.

#### **In-text Question**

- To remind ourselves of the work flow of traditional SDI, let's ask ourselves this question. At what Step off the traditional SDI workflow can a user request for additional new interests if he wants more information than what is usually given to him?
  - In step 6 of the work flow, a user request for additional new interests if he wants more information than what is usually given to him. For more details, go back to section 5.1.2.

### 5.1.4 Guidelines for Preparing Online 'SDI' Service

**Some guidelines for preparing modified online SDI service are as follows:**

1. Users' demographic profiles, professions and subject interests are surveyed.
2. New and earlier materials are reviewed.

3. Relevant publications are matched with subject interests of users.
4. Selected materials are processed by abstracting, extracting, reviewing and analysing or compiling.
5. Packets of materials in different forms are sent to users.
6. Users are asked to fill out feedback questionnaires in order to find out usefulness of packages and update user's profile

### Study Session Summary

In this study session, you have learnt that;

1. SDI refers to tools and resources used to keep a user informed of new resources on specified topics.
2. SDI is a modification of CAS and is unrivalled for its effectiveness in calling user attention to those few items found in current literature, which are directly relevant to the practice of their professions and the pursuit of their interests.
3. No doubt that there are various limitations in the manual operation of SDI system but it is justified also while planning the SDI services.

### Self-Assessment Questions (SAQs)

Congratulations on your successful completion of this study session. Attempt the following self-assessment exercise poised to measure your grasp of the learning outcomes in this study session.

#### **SAQ 5.1. (Measuring Learning Outcome 5.1)**

What does selective dissemination of information entail?

#### **SAQ 5.2. (Measuring Learning Outcome 5.2)**

Pick up your diary. I want you to write there the steps involved in the traditional procedures of SDI Services.

#### **SAQ 5.3. (Measuring Learning Outcome 5.3)**

At what step of the SDI workflow do you send out a bibliographical list of relevant publications to the users?

**SAQ 5.4. (Measuring Learning Outcome 5.3)**

At what step of the SDI workflow can a user request for profile modification or change?

**SAQ 5.5. (Measuring Learning Outcome 5.4)**

You have been made the guest speaker at an online forum geared towards discussing Online SDI. State for members of the group the guidelines for preparing Online SDI.

**References**

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## Study Session 6      Analysis and Consolidation of Information

*Expected duration: 1 week or 2 contact hours*

### Introduction

Hello, welcome to study session 6. In this course, we have been talking about how to repackage information such that it meets the demand of information consumers. Relatively, it is no news that special libraries are important parts of library science. For clarification however, special libraries are libraries that provide specialised services for specific fields. For instance, the University of Ilorin Law library is a special library, assuming there is a library that is dedicated solely to students of medicine, that too is a specialised library. Hence, special libraries are established to serve the users like doctors, scientists, administrators, corporate etc., who had special needs.

Special libraries are central within the method of information transfer to its users with special desires. These libraries are featured with an assortment of various information sources in different formats. With close attention to the dynamic nature of information, the services of special libraries have been modified plus the appearance of technology which has further modified the supply of the information. These services are categorically offered at two levels- one at the fundamental and alternative at the intermediate level. Fundamentally, the special libraries disseminate the specialised information by responding the queries of the specialised users either in form of detailed information or in packets through research and technical journals concerning the recent problems, updates and developments in a very discipline. At the higher level the complex information / literature searches are performed, bibliographies, CAS and SDI services are offered to the users. Typically in libraries a critical evaluation is not administered and therefore the resulted information is commonly a non vital and non-evaluated. So as on to supply critical evaluated information the extremely specialised services are used. Such services emphasis the evaluation of contents evaluation of

information, condense and repackaging in an appropriate usable format for the said/ target user, timely.

In this section these highly specialised services known as ‘information analysis; repackaging and consolidation services’ are discussed. I implore you to pay attention to information in the blue box as well as attempt every form of assessment given to you.

## Learning Outcomes for Study Session 6

At the end of this lesson students should be able to:

- 6.1. Appreciate the need for information analysis and consolidation, (SAQ 6.1).
- 6.2. Examine the processes involved in information analysis and consolidation. (SAQ 6.2. SAQ 6.3.).

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### 6.1. Genesis of Information Analysis and Consolidation Centres

The need for evaluated and consolidated information arose from the fact that most of the literature in science, technology, health, business, education and related fields is written by experts for experts and cannot be effectively used by non-experts or potential users in its original form. In other words information is not presented in the language and form that is understandable, readable and acceptable to the potential users who may benefit from it.

Another problem in the effective utilisation of information is overabundance of information on a particular topic. Sheer amount of information scattered over wide range of sources in diverse form, discourage its use by the potential users who may benefit from it. Indexing and abstracting services systematically scan the current primary literature like periodicals, conference proceedings, research reports, etc. on the particular subject field, select the relevant items, index or summarise each item, and arrange them in a helpful sequence for location and identification of individual items. It has been observed that the volume of indexing and abstracting services have been growing with the alarming growth of primary literature and even to scan the literature of a subject through these highly condensed devices is becoming difficult. What a busy user needs is information, that is critically evaluated, condensed, packaged and made available in a form, which can be immediately used in decision making, problem solving or for any other purpose in hand. To fulfil this need, a new kind of information organisations started emerging in the field, which focused on information analysis and consolidation.

Historically, the concept of information analysis and consolidation evolved in response to the difficulties encountered by the users in the use of information leading to non-use of information by them and the potential users who would have otherwise benefited if information was available to them in more usable form. These difficulties or barriers in the use of information by the users are basically due to the inherent characteristics of the world of information, which are as follows:

- Exponential growth of information and increasing rate of obsolescence: Users have inadequate time reading and assimilating new information;
- Interdisciplinary nature of information leading to scattering and seepage of information: Users can specialise only in restricted subject fields;
- Wide variation in quality and reliability of information: Users find it difficult and have inadequate time for evaluating and selecting the right information;
- Information is presented in multiplicity of languages: Users are not familiar with the language(s) to use the information;
- Information presented in a wide range of standards and formats: Users may not be familiar with that standard or format to use the information.
- Required information is published in documents with restricted circulation: Leading to inaccessibility of information; and
- S&T information is highly technical in nature with technical and trade jargons, Potential user with no technical background cannot comprehend it.

Before we go ahead, I want you to attempt this in-text question.

### **In-text Question**

- You have been invited to speak to a group of interns at the National Library on the emergence of information analysis and consolidation. Enlighten the attendees on what led to information analysis and consolidation?
  - The need for evaluated and consolidated information arose from the fact that most of the specialised literature in science, technology, health, business, education and related fields is written by experts for experts and cannot be effectively used by non-experts or potential users in its original form. This is one of the reason why information analysis and consolidation emerged. You may look through section 6.1 for further details.

### 6.2.1. What is Information Consolidation?

There are so many definitions of information consolidation. However, let us consider the definitions provided by Saracevic and Wood (1981) who gave the following elaborate definition:

“**Consolidated Information** is public knowledge specifically selected, analyzed, evaluated, and possibly restructured and repackaged for the purpose of serving some of the immediate decisions, problems and information needs of a defined clientele or social group, who otherwise may not be able to effectively and efficiently access and use this knowledge as available in the great amounts of documents or in its original form. The criteria for selection, evaluation, restructuring, and repackaging of this knowledge are derived from the potential clientele.

Following is a little more concise definition given by Saracevic and Wood (1981):

“**Consolidated Information** is a text(s) or message(s) purposefully structured from existing public knowledge to affect the private knowledge and decisions of individuals who otherwise may not be able to effectively and efficiently access or use this public knowledge from the original amounts or in the original structure and form.”

In other words consolidation of information refers to providing the right information for the right person in the right form and at the right time.

This is one of the most useful strategies of information repackaging; it provides the following advantages:

- 1 Duplicate and poorly produced materials can be weeded out,
- 2 Users can be saved the lengthy and time-consuming perusal of materials on a particular topic, they can also duplicate and poorly produced materials can be weeded out.
- 3 It is possible to provide with a more comprehensive and authoritative view of existing information on a particular topic quickly and at less cost and user can able to draw new knowledge from these materials.

In this strategy information is repackaged mostly in the form of literature review, case studies, and state of the art papers. All these sources of information follow some common procedure which involves gathering of available information about a particular well defined topic, analysis, comparison and assessment of new information required by users and drawing up of conclusions reflecting newly acquired knowledge.

So what are the objectives of information consolidation? We will consider this in section 6.2.2.

## 6.2.2. Objectives of Information Consolidation

The basic objectives of Information Consolidation can be enumerated as follows:

- To increase the effectiveness of information transfer to the target audience;
- To make the required information reach larger audience in accessible and usable form; and
- To encourage more intensive use of information in wide range of developmental activities.

## 6.2.3. Users of Information Analysis and Consolidation Products

The users of information analysis and consolidation products can be categorised into the following six groups:

- 1) Scientists, engineers, professional engaged in R&D activities;
- 2) Policymakers/planners in government;
- 3) Managers and business people in industry and business;
- 4) Technicians, supervisors and paraprofessionals working in government departments, industries and other business concerns;
- 5) Communicators/intermediaries such as extension workers, teachers, etc. communicating new technology or practices to general public; and
- 6) General public: including both rural and urban population.

### **Box 6.1. What is Information Consolidation?**

**Information Consolidation Activities** is used to define the responsibilities exercised by individuals, departments or organizations for evaluating and compressing relevant documents in order to provide definite user groups with reliable and concise new body of knowledge. Individuals or groups of individuals performing information consolidation activities would each constitute an ‘‘Information Consolidation Unit.

It is also important for you to note that education level of these groups varies from highly educated to illiterate group. While there are wide range of information services and products available for the first four groups, last two groups remained unserved till recently. Information requirements of these last two groups need particular attention from information analysis and consolidation efforts, if benefits of S&T knowledge are to be percolated to them.

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**Activity 6.1.**

*Time Allowed is 1 Hour*

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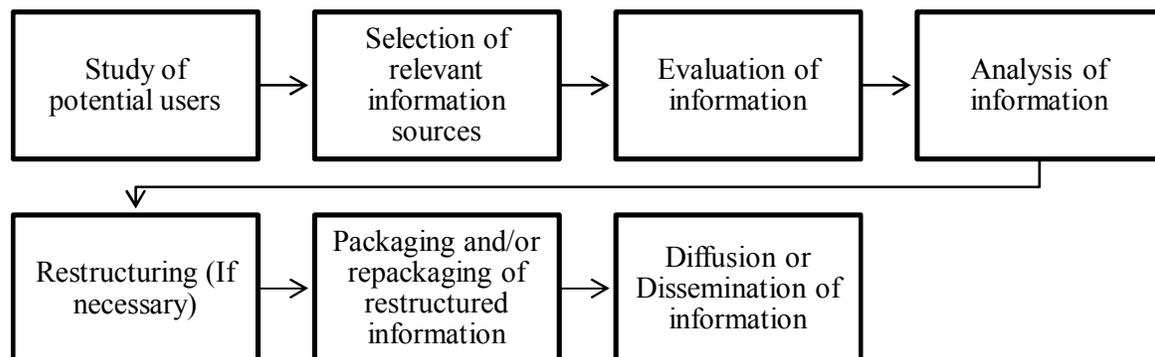
Information Consolidation Activities is used to define the responsibilities exercised by individuals, departments or organizations for evaluating and compressing relevant documents in order to provide definite user groups with reliable and concise new body of knowledge. I want you to write out in your diary the six categories of people who utilise the activities of information analysis and consolidation.

**Feedback on Activity 6.1.**

The users of information analysis and consolidation products can be categorised into six groups as identified earlier including; among others professionals, technicians, etc. you may refer to section 6.1.3 for further details.

**6.2.4. Processes in Information Analysis and Consolidation**

The basic processes involved in information analysis and consolidations activities are shown in fig 6.1.



**Fig 6.1. Steps in information Analysis and Consolidation**

Looking through the figure above, you will see that the process begins with the study of potential users to find their information needs and decide on the information product(s) suitable to fulfil those needs. You then go on to the selection of relevant information sources, both primary as well secondary information sources, containing the most useful information for the given user's problems and information needs.

Before we go ahead, I want you to attempt to answer the in-text question .

### **In-text Question**

- What is the sole advantage of information analysis and consolidation?
  - No doubt, information analysis and consolidation is one of the most useful strategies of information repackaging. One of its major advantages to users among other things is that it aids the removal of duplicate and poorly produced materials.

*We now continue with the steps involved in information analysis and consolidation.* After you have identified, the information that are there contained are evaluated to ascertain their merits, validity and reliability. Afterwards, you carry out an analysis of information to identify and extract most salient features conveyed by the given source and if necessary, perhaps if the information are either inaccurate or require rearrangement you carry out a restructuring. That is to say if the analysed and extracted information as a new whole, which differ from original presentation and can be used most effectively and efficiently by the user. This may involve synthesis, condensation, rewriting, simplifying, reviews, state-of-the-art presentation, etc. During synthesis the analysed information from one or more sources is condensed and presented in a new arrangement or structure with an interpretive or evaluative point of view. Condensation is derivation of short summary of information from a source or extraction of key statements i.e. sentences, paragraphs, figures, etc. when this is satisfactorily done, you go ahead to package and/or repackage the restructured information in a form that will increase its use. (Restructuring deals with contents or substance of information while packaging deals with the form of its presentation). Finally, you go ahead to disseminate the information in ways that will encourage and promote its use. This may also involve educating the users in the use of information.

#### **Box 6.2. Objectives of Information Consolidation**

The basic objectives of Information Consolidation can be enumerated as follows:

- 1 To increase the effectiveness of information transfer to the target audience;
- 2 To make the required information reach larger audience in accessible and usable form;  
and
- 3 To encourage more intensive use of information in wide range of developmental activities.

## Study Session Summary

In this study session, you have learnt that;

- 1 The concept of information analysis and consolidation evolved in response to the difficulties encountered by the users in the use of information leading to non-use of information by them.
- 2 The concept of information analysis and consolidation is geared towards the increase and the effectiveness of information transfer to the target audience.
- 3 The users of information analysis and consolidation products can be categorised into the following six groups including professional engaged in R&D activities, policymakers/planners in government, managers and business people in industry and business, technicians and paraprofessionals working in government departments, communicators/intermediaries and the general public.

## Self-Assessment Questions (SAQs)

Congratulations on your successful completion of this study session. Attempt the following self-assessment exercise poised to measure your grasp of the learning outcomes in this study session.

### **SAQ 6.1. (Measuring Learning Outcome 6.1)**

Why is information analysis and consolidation considered one of the most effective strategy of information repackaging?

### **SAQ 6.2. (Measuring Learning Outcome 6.3)**

Why do you have to evaluate the information contained in the sources identified for information analysis and consolidation?

### **SAQ 6.3. (Measuring Learning Outcome 6.3)**

After you have evaluated the information contained in the selected sources, what do you do next in the information analysis and consolidation process?

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## Study Session 7      Digital Libraries

*Expected duration: 1 week or 2 contact hours*

### Introduction

Welcome to study session 7. Here we will learn about digital libraries. It is no news that we are in the age of a networked society where IT in addition to its use in all spheres of human activity has been used extensively to record, store, and disseminate the information in the digital form. IT has almost converted the world into a global village. If you look at education, ICT has reshaped it. You can be in China and be studying in Nigeria. You can be in Nigeria and be studying in the United States of America. This material you are reading now, is also accessible to millions of people. Look at the sector of communication, today you send a message and you get immediate feedback, you send a message from the comfort of your bedroom and it gets to billions of people in the world. These are just few instances. And the answer to them all is digital technology.

No doubt, this revolution in the IT sector is influencing librarians. Libraries are changing to meet the demand put on them. The new generation whose demand for information is never met is always demanding that traditional libraries should be developed as well as well-equipped and interconnected as digital libraries.

In this study session, you will be exposed to different factor that influence finding a concrete definition for digital libraries, the challenges facing the building or establishment of digital libraries as well as appreciate the advantages and disadvantages of digital libraries. I urge you to ensure you attempt every self-assessment exercise provided in this study session and note that the information in the blue box is of immense importance.

### Learning Outcomes for Study Session 7

At the end of this lesson students should be able to:

- 7.1. Define and use correctly keywords in **bold**. (SAQ 7.1).
- 7.2. Ascertain the challenges facing the development of digital libraries. (SAQ 7.2).

7.3. Discuss factors of change to digital libraries (SAQ 7.3.).

7.4. Appreciate the advantages and disadvantages of the digital libraries. (SAQ 7.4).

**Keywords: Digitalisation, Digital Library**

## 7.1. Meaning, Requirements and Resources of a Digital Library

### 7.1.1. Meaning of Digital Library

What is a digital library? There is no clear cut definition of digital library owing to so much confusion surrounding this expression. This is as a result of three major factors. First, the librarians have used so many different phrases to represent this single concept. Phrases such as electronic library, virtual library, library without walls and it never has been quite clear what each of these different phrases mean. “Digital library” is simply the most current and most widely accepted term and is now used almost exclusively at conferences, online, and in the literature.

Another factor adding to the confusion is that digital libraries are at the focal point of many different areas of research, and what constitutes a digital library differs depending upon the research community that is describing it (Nurnberg, et al, 1995). For example

- ✚ from an information retrieval point of view, it is a large database .
- ✚ For people who work on hypertext technology, it is one particular application of hypertext methods.
- ✚ For those working in wide-area information delivery, it is an application of the Web.
- ✚ And for library science, it is another step in the continuing automation of libraries that began over 25 years ago.

In fact, a digital library is all of these things. These different research approaches will all add to the development of digital libraries.

The Third element in the confusion arises from the fact that there are many things on the Internet that people are calling “digital libraries,” which a quarter of them from a librarian’s point of view are not libraries. For example

- ✚ For computer scientists and software developers, collections of computer algorithms or software programs are digital libraries.
- ✚ For database vendors or commercial document suppliers, their databases and electronic document delivery services and digital libraries.
- ✚ For large corporations, a digital library is the document management systems that control their business documents in electronic form.

- ✚ For a publisher, it may be an online version of a catalogue.
- ✚ And for at least one very large software company, a digital library is the collection of whatever it can buy the rights to, and then charge people for using.

A fairly spectacular example of what many people consider to be a digital library today is the World Wide Web. The Web is a gathering of thousands and thousands of documents. Many would call this huge collection a digital library because they can find information, just as they can do banking in a “digital bank” or buy compact discs in a “digital record store.” Yet, is the Web a digital library? According to Clifford Lynch, once of the leading scholars in the area of digital library research, it is not. Lynch (1997:52) states: One sometimes hears the Internet characterized as the world's library for the digital age. This description does not stand up under even casual examination. The Internet and particularly its collection of multimedia resources known as the World Wide Web was not designed to support the organized publication and retrieval of information as libraries are. It has evolved into what might be thought of as a chaotic repository for the collective output of the world's digital "printing presses."...In short, the Net is not a digital library.

In the next section of this study session, we would attempt to draw up a working definition for digital libraries. However, to ascertain you understand what we have been saying.

### **In-text Question**

- I want you to identify the three major reasons why it is problematic attempting to define digital libraries.
  - As stated earlier, it is quite difficult to define digital library for three major reasons. Amongst others one of the key reason is that there are many things on the Internet that people are calling “digital libraries,” and a quarter of them from a librarian’s point of view are not libraries because they do not possess the characteristics of a library. For you to get clearer details on this, you may visit section 7.1.1 again for more details on this question.

If you have answered that one question correctly, let us now face squarely the most important question that stares nude at us in this study session. What is a working definition of “digital library” that makes sense to librarians? As a starting point, we should assume that digital libraries are libraries with the same purposes, functions, and goals as traditional libraries such as collection development and management, subject analysis, index creation, provision of access, reference work, and preservation. A narrow focus on digital formats alone hides the

extensive behind-the-scenes work that libraries do to develop and organize collections and to help users find information. Digital libraries are organizations that provide the resources, including the specialized staff, to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of, and ensure the persistence over time of collections of digital works so that they are readily and economically available for use by a defined community or set of communities.

We have come to the end of this section. In the next section, we would take a close look at the characteristics of digital library. However, before we move to that section, let us cast our minds back to the reasons why it is difficult to define digital library.

### **In-text Question**

- As you were told earlier, librarians have used so many different phrases to represent the concept digital library. Yet, it is difficult to come up with a workable and generally acceptable definition of digital library. I want you to write out in your library other phrases or terminologies that are being used as substitute to the phrase digital libraries.
  - Do not forget that librarians have used so many different phrases to represent this single concept. Phrases such as electronic library, virtual library, library without walls and it never has been quite clear what each of these different phrases mean.

### 7.1.2. Characteristics of Digital Libraries

So, with the assumption that digital libraries are libraries first and foremost, we can list some characteristics. These characteristics have been gleaned from various discussions about digital libraries, both online and in print (See Arms, 1995; Graham, 1995a; Chepesuik, 1997; Lynch and Garcia-Molina, 1995):

- ✚ Digital libraries are the digital face of traditional libraries that include both digital collections and traditional, fixed media collections. So they encompass both electronic and paper materials.
- ✚ Digital libraries will also include digital materials that exist outside the physical and administrative bounds of any one digital library
- ✚ Digital libraries will include all the processes and services that are the backbone and nervous system of libraries. However, such traditional processes, though

forming the basis digital library work, will have to be revised and enhanced to accommodate the differences between new digital media and traditional fixed media.

- ✚ Digital libraries ideally provide a coherent view of all of the information contained within a library, no matter its form or format
- ✚ Digital libraries will serve particular communities or constituencies, as traditional libraries do now, though those communities may be widely dispersed throughout the network.
- ✚ Digital libraries will require both the skills of librarians and well as those of computer scientists to be viable.

Clearly, digital libraries are important and needed. But what will it take to set one up? What are the requirements and the Challenges facing ...

### 7.1.3. Requirements and Challenges Facing Digital Library

The confidence and excitement from the early 1990's has been replaced by a realization that building digital libraries will be a difficult, expensive, and long-term effort (Lynch and Garcia-Molina, 1995). Creating effective digital libraries poses serious challenges. The integration of digital media into traditional collections will not be straightforward, like previous new media (e.g., video and audio tapes), because of the unique nature of digital information<sup>3/4</sup> it is less fixed, easily copied, and remotely accessible by multiple users simultaneously. Some of the requirements for digital libraries are:

**Audio visual devices such as** displayed in fig 7.1, 7.2 and 7.3 (V.C.R., D.V.D., Sound box, Telephone, etc.)



**Fig 7.1. Colour T.V**

*Image Source: Games online*



**Fig 7.2. Diskettes or DVD**

*Image Source: accutechdata.com*



**Fig 7.3 Telephones**

*Image Source: engineersgarage.com*

**Computer** device as shown in fig 7.4. (Examples of other computing devices are Server, P.C. with multimedia, U.PS. Etc.)



**Fig 7.4. Computer Device**

*Image Source: pisces.bbystatic.com*

**Network:** LAN, MAN, WAN, Internet etc.

**Printer** as shown in fig 7.5. Examples are Laser printer, Dot matrix, Barcode printer, Digital graphic printer etc.



**Fig 7.5. Printer**

*Image Source: lh3.ggpht.com*

**Scanner:** H.P. Scan jet, flatbed, Sheet feeder, Drum scanner, Slide scanner, Microfilming scanner, Digital camera, Barcode scanner etc.



**Fig 7.6. Scanner**

*Image Source: media.licdn.com*

**Other requirements may include Storage devices:** Optical storage device, CD-ROM, Jukebox etc. **As well as Software.** Any suitable software, which is interconnected and suitable for LAN and WAN connection. PCP

It should be without surprise to you that there are issues facing the development of digital libraries. Some of these issues include;

The issue of technical architecture. The issue of technical architecture underlies any digital library system. Libraries will need to enhance and upgrade current technical architectures to accommodate digital materials. The architecture will include components such as:

- high-speed local networks and fast connections to the Internet
- relational databases that support a variety of digital formats
- full text search engines to index and provide access to resources
- a variety of servers, such as Web servers and FTP servers
- electronic document management functions that will aid in the overall management of digital resources.

The resources supported by the architecture could include:

- bibliographic databases that point to both paper and digital materials
- indexes and finding tools
- collections of pointers to Internet resources
- directories
- primary materials in various digital formats
- photographs
- numerical data sets
- and electronic journals

Another issue is that of building of digital collections. Obviously, for any digital library to be viable, it must eventually have a digital collection with the critical mass to make it truly useful.

Next is the issue of digitalising the library materials. What does this term digitalising mean exactly? Simply put, it is the conversion of any fixed or analogue media such as books, journal articles, photos, paintings, microforms into electronic form through scanning, sampling, or in fact even re-keying. An obvious obstacle to digitization is that it is very expensive. One estimate from the University of Michigan at Ann Arbor, the organization

responsible for the JSTOR project, puts the cost of digitizing a single page at \$2 to \$6 dollars US (Chepesuik, 1997:48).

### **Box 7.1 Characteristics of Digital Library**

- ✚ Digital libraries are the digital face of traditional libraries that include both digital collections and traditional, fixed media collections.
- ✚ Digital libraries will also include digital materials that exist outside the physical and administrative bounds of any one digital library.
- ✚ Digital libraries will include all the processes and services that are the backbone and nervous system of libraries.
- ✚ Digital libraries ideally provide a coherent view of all of the information contained within a library, no matter its form or format
- ✚ Digital libraries will serve particular communities or constituencies, as traditional libraries do now, though those communities may be widely dispersed throughout the network.
- ✚ Digital libraries will require both the skills of librarians and well as those of computer scientists to be viable.

Another important issue is preservation. That is keeping digital information available in perpetuity. In the preservation of digital materials, the real issue is technical obsolescence. Technical obsolescence in the digital age is like the deterioration of paper in the paper age. Libraries in the pre-digital era had to worry about climate control and the de-acidification of books, but the preservation of digital information will mean constantly coming up with new technical solutions. When looking at the problem or challenge of preservation, you consider a three faced problem including the preservation of the storage medium, the preservation of fixed-media materials through digital technology as well as the preservation of access to content.

Finally, Copyright has been called the “single most vexing barrier to digital library development” (Chepesuik, 1997:49). The current paper-based concept of copyright breaks down in the digital environment because the control of copies is lost. Digital objects are less fixed, easily copied, and remotely accessible by multiple users simultaneously. The problem for libraries is that, unlike private businesses or publishers that own their information, libraries are, for the most part, simply caretakers of information they don't own the copyright

of the material they hold. It is unlikely that libraries will ever be able to freely digitize and provide access to the copyrighted materials in their collections. Instead, they will have to develop mechanisms for managing copyright, mechanisms that allow them to provide information without violating copyright, called rights management. Some rights management functions could include, for example: · usage tracking · identifying and authenticating users · providing the copyright status of each digital object, and the restrictions on its use or the fees associated with it · handling transactions with users by allowing only so many copies to be accessed, or by charging them for a copy, or by passing the request on to a publisher.

Now, there are other factors that have influenced the transition from traditional library to digital library. Are you wondering what these factors may be? We will consider them in the next section.

## 7.2. Factors of change to digital libraries

The limited buying power of libraries, complex nature of recent document, storage problem etc. are some of the common factor which are influencing to change to digital mode, some other factors are-

1. Information explosion
2. Searching problem in traditional libraries
3. Low cost of technology: When we consider the storage capacity of digital document and its maintained then it can be easily realize that the cost of technologies is much more less than that of traditional libraries.
4. Environmental factor: the use of digital libraries is the cleanest technologies to fulfil the slogan “Burn a CD-ROM save a tree”
5. New generation needs

### **Box 7.2. Issues and Challenges facing Digital Libraries**

Some the more serious issues facing the development of digital libraries include;

- 1 The first issue is that of the technical architecture that underlies any digital library system.
- 2 Another issue is that of building of digital collections.
- 3 Another important issue is preservation. That is keeping digital information available in perpetuity.
- 4 We also have the issue of copyright.

### 7.2.1. Advantages of the digital libraries

A digital library is not confined to a particular location or so called building it is virtually distributed all over the world. The user can get his/ her information on his own computer screen by using the Internet. Actually it is a network of multimedia system, which provides fingertip access. The spoken words or the graphical display of a digital library is again having a different impact from the words that are printed. In the new environment owing a document will not be problem for the library because the user will pay for its uses. Some of the key advantages of digital libraries include;

1. **No physical boundary:** The user of a digital library need not to go to the library physically, people from all over the world could gain access to the same information, as long as an Internet connection is available.
2. **Round the clock availability:** Digital libraries can be accessed at any time, 24 hours a day and 365 days of the year
3. **Multiple accesses:** The same resources can be used at the same time by a number of users.
4. **Structured approach:** Digital library provides access to much richer content in a more structured manner i.e. we can easily move from the catalog to the particular book then to a particular chapter and so on.
5. **Information retrieval:** The user is able to use any search term bellowing to the word or phrase of the entire collection. Digital library will provide very user friendly interfaces, giving click able access to its resources.
6. **Preservation and conservation:** An exact copy of the original can be made any number of times without any degradation in quality.
7. **Space:** Whereas traditional libraries are limited by storage space, digital libraries have the potential to store much more information, simply because digital information requires very little physical space to contain them. When the library had no space for extension digitization is the only solution.
8. **Networking:** A particular digital library can provide the link to any other resources of other digital library very easily thus a seamlessly integrated resource sharing can be achieved.
9. **Cost -** The cost of maintaining a digital library is much lower than that of a traditional library. A traditional library must spend large sums of money paying for staff, book maintains, rent, and additional books. Digital libraries do away with these fees.

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**Activity 7.1.**

*Time Allowed is 1 Hour*

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Nigerian Librarians have gathered to plan a proper establishment of a digital library for Nigerians. However, they know it will not be an easy task. Hence they have decided that you should duly write to them on the possible challenges that await them in the attempt to carry out this task.

**Activity 7.1 Feedback**

The first major issue is that of the technical architecture that underlies any digital library system. Libraries will need to enhance and upgrade current technical architectures to accommodate digital materials. Other problems include copyright issues and lots more. You may find other issues in section 7.1.3.

**7.2.2. Disadvantages of the digital libraries**

The computer viruses, lack of standardization for digitized information, quick degrading properties of digitized material, different display standard of digital product and its associated problem, health hazard nature of the radiation from monitor etc. makes digital libraries at times handicap. Other issues include;

1. **Copyright:** - Digitization violates the copy right law as the thought content of one author can be freely transfer by other without his acknowledgement. So one difficulty to overcome for digital libraries is the way to distribute information. How does a digital library distribute information at will while protecting the copyright of the author?
2. **Speed of access:** - As more and more computer are connected to the Internet its speed of access reasonably decreasing. If new technology will not evolve to solve the problem then in near future Internet will be full of error messages.
3. **Initial cost is high:** - The infrastructure cost of digital library i.e. the cost of hardware, software; leasing communication circuit is generally very high.
4. **Band width:** - Digital library will need high band for transfer of multimedia resources but the band width is decreasing day by day due to its over utilization.
5. **Efficiency:** - With the much larger volume of digital information, finding the right material for a specific task becomes increasingly difficult.

6. **Environment:** - Digital libraries cannot reproduce the environment of a traditional library. Many people also find reading printed material to be easier than reading material on a computer screen.
7. **Preservation:** - Due to technological developments, a digital library can rapidly become out-of-date and its data may become inaccessible.

In conclusion to this study session, with several years of amassed experience, the original zeal of librarians towards the development of the digital library has been replaced by moderate after thoughts. However, as with most other technical developments in libraries over the years, we will have to grow in small, practicable, evolutionary steps.

### Study Session Summary

In this study session, you have learnt that,

1. Defining digital library is problematic owing to terminology issues.
2. A digital library is not confined to a particular location or so called building it is virtually distributed all over the world.
3. Digital libraries are the digital face of traditional libraries that include both digital collections and traditional, fixed media collections.
4. The limited buying power of libraries, complex nature of recent document, storage problem etc. are some of the common factor which are influencing to change to digital mode.
5. The computer viruses, lack of standardization for digitized information, quick degrading properties of digitized material, different display standard of digital product and its associated problem, health hazard nature of the radiation from monitor etc. makes digital libraries at times handicap.

### Self-Assessment Questions (SAQs)

Congratulations on your successful completion of this study session. Attempt the following self-assessment exercise poised to measure your grasp of the learning outcomes in this study session.

#### **SAQ 7.1. (Measuring Learning Outcome 7.1)**

- a. \_\_\_\_\_ is the conversion of any fixed or analogue media such as books, journal articles, photos, etc. into electronic form through scanning, sampling, or in fact even re-keying.
- b. The phrase library without walls refers to \_\_\_\_\_

**SAQ 7.2. (Measuring Learning Outcome 7.2)**

As a guest Librarian at the National Library of Nigeria, you have a chance to talk with the interns. Tell them what the challenges facing the development of digital libraries are.

**SAQ 7.3. (Measuring Learning Outcome 7.3)**

Identify the factors of change to digital libraries

**SAQ 7.4. (Measuring Learning Outcome 7.4)**

What advantages does digital library have that makes it unique?

**References**

Agada, J. (Forthcoming). Information repackaging. In Achleitner, H. (Ed.), Information Brokering. Norwood, NJ: Ablex

Seethrama, S. (1997). Information Consolidation and Repackaging- Framework, Methodology, Planning. New Delhi: Ess Ess Publications

## Study Session 8      Diffusion of Information within a Community

*Expected duration: 1 week or 2 contact hours*

### Introduction

Welcome to the last study session in LIS 311. Hopefully you have been learning a lot. We began the course by introducing ourselves to the concept of information repackaging. We then moved on to talk about strategies of repackaging information. In this study session, we are going to explain how information diffuses within a community.

Information which are facts or details about something has the power to change our lives. It can increase the quality of human experience, create new environments to realize our dreams and potential in life and it helps us to get beyond problems that trouble our world. This importance cannot be played down at any instance. Imagine that a house containing people and other properties is burning. All that is required is to put the right information through to the right quarters so that those lives and at least few properties can be rescued.

Often times, information has to pass through channels to get to the right destination and achieve the intended effect as required by the sender. What this means is that if a house is burning and the fire is spreading fast to other properties. You happen to be in the scene and want to call out for help. For your information to be effective, you have to send it through a channel. And that channel must be the right channel if you want the information to be effective. I mean, if you wanted everyone in the neighbourhood to come out and see how to end the fire, you may not be able to reach everyone in the neighbourhood by calling one person's mobile phone. You may want to use the media which reaches everyone at the same time. Although, in this instance, you may have to consider time even though information technology like the internet and social media has shrink this challenge. So, information within the people diffuses through two types of channel; word of mouth and formal media. We shall see how these two channels interplay to bring about diffusion of information within a community.

Also, one thing you have to take note of is that, there are communities within communities. I mean communities with specially shared interests such as work groups, institutions, professional groups, etc. the information within these specialised community of people will not go through the same channel as information meant for the entire community. Hence, there also have to be specialised channels for these groups of people.

In this study session, we would discuss different channels of communication available for information diffusion in the community. I urge you to pay close attention to information in the blue box as well as ensure you carry out every assessment given to you in this study session.

### Learning Outcomes for Study Session 8

At the end of this lesson students should be able to:

- 8.1. Define and use correctly keywords in **bold**.
- 8.2. Identify and explain channels of diffusion of information within a community
- 8.3. State the advantages of information networks of information diffusion
- 8.4. Ascertain the characteristics of informal networks in information.

### **Keywords: Mass Media, Word of Mouth**

#### 8.1. Diffusion of information within a community

In any community there is need for information. Information is necessary for development within a community. There may be work groups in organizations or people at large, but wherever they are or whatever they do, they need information from various sourced in order to interact well for development.

There are two types of channels through which information or news diffuse including, word of mouth and mass media. We would consider these two concepts shortly.

##### 8.1.1. Word of mouth

As soon as an event, whether from national or international level, happens depending on its impact, it spreads quickly first with a word of mouth. It may begin with an announcement. It maybe heard by a few people, but within a short while it spreads like bush fire. Word of mouth is the passing of information from person to person by oral communication, which could be as simple as telling someone the time of day. Here, the mode of interaction may be of a

conversational nature and involves the exchange of either verbal or non-verbal information between two or more people in a face-to-face or voice-to-voice setting.

Passing information with the use of words of mouth as a channel dominates our activities at home, office, market and elsewhere. It helps to break the barrier of formal relationships, generates warmth and creates harmony that is necessary for socio-economic development. In this kind of communication, it is necessary for the participants to be close enough to enable them to conversationally interact. The personal mannerism of either the sender or the receiver of the information should be apparently clear enough for effective understanding.

In the rural setting, one of major ways through which information gets to the people is word of mouth. So you can have the town crier issuing information to the people on a hot afternoon. However, in urban centres where there is electricity, the spread of major news items within the community is learnt by majority of the people through radio, television and newspaper.

### 8.1.2. Mass Media

The second channel of passing information in the society is the Mass media. News is relayed by mass media. It consists of series of unrelated items that are transient and ephemeral (lasting for a short while). Most trivial happenings as long as it is a departure from the customary ritual and routine of everyday life is likely to be reported e.g. thugs snatching a pay roll of a certain firm. Usually news that is relayed is inevitably enormously selective. The average reader reads a small portion. At each step in the process, selection and gate keeping is practiced. Even before news reaches the news house there is a lot of selection. The reporter who witnessed the event which is considered news worthy will report selectively; the journalist who interviews him will decide what will be worked up in to the news story, and how, his editor decides whether to send the story to a wire service. This service selects what it will pass on to the press. Only a small portion out of the any news events will reach the reader. It is evident that the many gatekeepers involved are collectively exercising great influence on the flow of information.

#### **Box 8.1. Channels of Information Diffusion in the Community**

There are two types of channels through which information or news diffuse including, word of mouth and mass media.

In word of mouth channel, interaction may be of a conversational nature and involves the exchange of either verbal or non-verbal information between two or more people in a face-to-

face or voice-to-voice setting. Meanwhile, the mass media would involve the use of such media as television, radio and or Newspapers.

## 8.2. Diffusion of Information within Specialized Community

At this point, I would like to focus on diffusion of information within a specialized community. Let us take an example a group of lawyers; or perhaps, a group of medical doctors, or any other group of professionals sharing thoughts together. One thing that would be common in this setting is the use of professional dictions that may not be understood by everyone except members of that profession. Hence, in this section, we would look at the channels that may suit these group of people with their specialised topic. Attention would be paid to members of a scientific research group.

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### **Activity 8.1.**

*Time Allowed is 1 Hour*

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The Minister of information for Gatangwa was informed personally by the Chief Medical doctor in the Presidential Villa that the wife of the President has just given birth to a baby boy. The Minister then went to the radio station where he informed the entire community the the wife of the President has given Birth.

In this instance, where does word of mouth or mass media come into play?

### **Activity 8.1. Feedback**

In this instance, word of mouth which is the passing of information from person to person by oral communication, come to play twice. When the doctor informed the Minister and while the Minister was talking to the people. Mass media on the other hand which has to do with concepts such as television, radio, newspapers and social media comes into play when the Minister reinforces his words to the people using the Mass Media.

### 8.2.1. Diffusion of information within a scientific research community

Within a scientific research community, we find both formal media and interpersonal communication in operation. Take for instance, a research or industrial organization where there is always a lot of interaction. Two forms of communication channels would probably be utilised depending on the kind of information as well as the information provider. These are the formal and informal links of information provision. The formal communication system of science could include research papers in journals, monographs and meetings of

various kinds. Informal process includes reprints of articles, correspondence and face –to-face interaction.

### 8.2.2. Characteristics and Advantages of informal networks of information diffusion

Informal diffusion networks have some distinct characteristics worth noting. The characteristics are viewed in the back drop of the information channels and the options open for the diffusion of information within the community. The most notable characteristic of informal net-work is increased reliance. There has been an increased reliance placed upon informal diffusion of information. This is a way of adjusting to the information explosion and satisfying information needs which formal channels do not or cannot fulfil. Some of these characteristics include;

Informal networks perform a kind of current awareness service. By a process of selective switching it routes scientific news to the scientist, to whom it is relevant.

1. Informal network are more usable by the audience more than the formal communications. Audiences tend to prefer informal communications.
2. Information disseminated by the informal channels is current. The information reaches audiences while it still contains a high proportion of active researchers involved in the work in similar areas.
3. Scientist interacting informally are willing to speculate about their work. They discuss their mistakes and successes. They look at a range of broad areas of interest. They establish ways in which scientific research can be communicated through informal and formal channels to the users. They look at ways that can allow feedback including critical feedback, which in turn may provide reinforcement.

Furthermore, informal diffusion of information plays a large part in research activities. In recent decades the time gap between experiment and receiving information has made informal information diffusion more attractive. However, it has a notable disadvantage in that it works very well for some scientists, most of the time but it is inadequate for others. Some of its major advantages include;

- Informal networks are seen to complete and sometimes to enhance the existing arrays of informal activities in the diffusion of information
- It is less costly compared to planned formal systems
- It is readily available to a wider population of users

- It has a relatively high speed in bringing word of new development to users.

In conclusion, diffusion of information can be described as community need of information. In any community, Information is necessary for development within a community. There may be work groups in organizations or people at large, but wherever they are or whatever they do, they need information from various sourced in order to interact well for development. In this chapter, advantages of formal informal networks of information diffusion also, the characteristics were highlighted.

### Study Session Summary

In this study session, you have learnt that;

1. Information is necessary for development within a community.
2. There are two types of channels through which information or news diffuse including, word of mouth and mass media.
3. Passing information with the use of words of mouth as a channel dominates our activities at home, office, market and elsewhere.
4. In urban centres where there is electricity, the spread of major news items within the community is learnt by majority of the people through radio, television and newspaper.
5. Within a scientific research community, we find both formal media and interpersonal communication in operation.

### Self-Assessment Questions (SAQs)

Congratulations on your successful completion of this study session. Attempt the following self-assessment exercise poised to measure your grasp of the learning outcomes in this study session.

#### **SAQ 8.1. (Measuring Learning Outcome 8.1)**

Differentiate the **Mass Media** from **Word of Mouth** channel of communication

#### **SAQ 8.2. (Measuring Learning Outcome 8.2)**

In the rural community where electricity is rare, what channel of information dissemination would be much more effective and why?

**SAQ 8.3. (Measuring Learning Outcome 8.2)**

In the urban area where the community is not organised into groups of people but are rather scattered into a heterogeneous background. What channel of information dissemination would be much more effective and why?

**SAQ 8.4. (Measuring Learning Outcome 8.3)**

State the advantages of informal networks of information diffusion

**SAQ 8.5. (Measuring Learning Outcome 8.4)**

What features make informal communication channels unique?

**References**

Agada, J. (Forthcoming). Information repackaging. In Achleitner, H. (Ed.), *Information Brokering*. Norwood, NJ: Ablex

Seethrama, S. (1997). *Information Consolidation and Repackaging- Framework, Methodology, Planning*. New Delhi: Ess Ess Publications

# Notes on Self-Assessment Questions (SAQ)

## Study Session 1

### **SAQ 1.1. (Measuring Learning Outcome 1.1)**

Information packaging is the physical recording, arrangement and presentation of information on a given medium and in and in a given form. It refers to the presentation of information in more understandable, readable, acceptable and usable forms.

### **SAQ 1.2. (Measuring Learning Outcome 1.2)**

As summarized by Ugwuogu (2015) the different forms may include;

- i. Reformatting and synthesizing raw information.
- ii. Combining expertise or consulting on a subject with access to relevant information sources.
- iii. Providing training or assistance to a user in accessing an information product.
- iv. Drama.
- v. Use of songs.
- vi. Story telling.
- vii. Audio – Visual materials.
- viii. Translation *into local languages*.
- ix. Oral transmission.
- x. Group Discussions.
- xi. Poetry.
- xii. Technological tools.

Other media through which information could also be repackaged include: Bibliography on disks, Internet, Wide Area Information Services (WAIS), World Wide Web (www), and Social Media.

### **SAQ 1.3. (Measuring Learning Outcome 1.3)**

Taylor and Rives (1986), quoted in Alexander (1995), have advanced some reasons for repackaging information to include the following:

- ✓ To customise information into such a way that it meets user needs
- ✓ To facilitate dissemination, organisation and communication.
- ✓ To simplify i.e. an annotated bibliography is like a map in the world of information overload.

- ✓ To facilitate interactivity between users, knowledge base, and technology

## Study Session 2

### **SAQ 2.1. (Measuring Learning Outcome 2.1)**

The synonym for the word **user** as used in this study session would be consumer. Hence information user means information consumer.

### **SAQ 2.2. (Measuring Learning Outcome 2.2)**

The importance of information repackaging include;

2. To customise information into such format that it meets user needs.
3. To facilitate dissemination, organisation, and communication.
4. To simplify e.g. an automated bibliography is like a map in the world of information overload.
5. To facilitate interactivity among user, knowledge base, and technology

### **SAQ 2.3. (Measuring Learning Outcome 2.3)**

The users here would be Subject Users. They fall under the category of specialised library and hence would be used only by lawyers or those studying the subject of law.

### **SAQ 2.4. (Measuring Learning Outcome 2.3)**

This is also a specialised library for users with special needs. Hence, considering their impairment the library would only be useful for blind users.

### **SAQ 2.5. (Measuring Learning Outcome 2.3)**

In the National Library of Nigeria, you would find **General readers** (This type of users makes good use of the reading materials offered by the library), subject users as well as users with special needs. It is a public library and hence, you may find all the category of users here.

## Study Session 3

### **SAQ 3.1. (Measuring Learning Outcome 3.1)**

In the first repackaging stage you need to consider your audience peculiarities. The essence is for you to be able to ascertain their needs and how to meet them.

### **SAQ 3.2. (Measuring Learning Outcome 3.1)**

In the fifth stage, you should plan a feedback system. This is to judge the success or otherwise of the repackaged information.

### **SAQ 3.3. (Measuring Learning Outcome 3.2)**

To inform the users of latest developments in their subject fields, to keep the clientele well-informed and up-to-date knowledge of latest development in their fields of research as well as to fulfil the current demand of the users.

### **SAQ 3.4. (Measuring Learning Outcome 3.2)**

Some of the techniques that can be utilised to inform library users include;

1. Telephone calls to individuals,
2. Recording individual reference and forwarding them to the concerned persons,
3. Periodical routing,
4. Maintaining the card file of references of information manually or automatically,
5. Issuing of library bulletins
6. Circulation of duplicated contents of periodicals literature.

### **SAQ 3.5. (Measuring Learning Outcome 3.3)**

The steps in the provision of CAS are given below:

1. Review or scan documents (some time records of documents) immediately upon receipt.
2. Select information and record individual documents pertinent to the programme of the individuals or groups of the organization being served.
3. Send notification to the users about items or information of interest to them.

## Study Session 4

### **SAQ 4.1. (Measuring Learning Outcome 4.1)**

Accession List is the records of volumes added to an archival (library) collection, showing the chronological order of the addition and including accession number, bibliographic information, and cost of acquisition while a bibliography is a list of the written sources of information on a subject.

### **SAQ 4.2. (Measuring Learning Outcome 4.2)**

In the accessions or acquisition register, the following basic data on a publication will be listed:

- accession number
- date of purchase/entry
- author
- title (if necessary in an abridged form)
- supplier (bookseller, supplying organization, donor)

### **SAQ 4.3. (Measuring Learning Outcome 4.3)**

Bibliographic resources are used to;

- a) Support background information in research projects.
- b) Reference tools in training or classroom teaching
- c) Information tool by which to make users aware of recent materials on a particular subject.
- d) Information tool by which to advise librarians of the availability of new materials which they may want to acquire.

### **SAQ 4.4. (Measuring Learning Outcome 4.4)**

Annotated bibliography contains short notes or comments made by the author concerning the scope, usefulness or other features of the works listed.

### **SAQ 4.5. (Measuring Learning Outcome 4.4)**

National Bibliography is a type of bibliography that contains a list of documents and sources published in Nigeria and with different Nigerian Languages.

## Study Session 5

### **SAQ 5.1. (Measuring Learning Outcome 5.1)**

SDI is a personal current awareness service providing researchers with the latest publications on a specified research topic. Once a search profile is created and saved, relevant information will be sent to the researcher automatically whenever the selected databases are updated.

### **SAQ 5.2. (Measuring Learning Outcome 5.2)**

As presented in fig 5.1, the first stage of planning SDI service include

- Selection of Projects
- Project Profile
- Document Profile
- Comparing and Matching
- Evaluation

### **SAQ 5.3. (Measuring Learning Outcome 5.3)**

At step 5 of the SDI workflow you send out a bibliographical list of relevant publications to the users.

### **SAQ 5.4. (Measuring Learning Outcome 5.3)**

At step 6 of the SDI workflow a user can request for profile modification or change?

### **SAQ 5.5. (Measuring Learning Outcome 5.4)**

**Some guidelines for preparing modified online SDI service are as follows:**

1. Users' demographic profiles, professions and subject interests are surveyed.
2. New and earlier materials are reviewed.
3. Relevant publications are matched with subject interests of users.
4. Selected materials are processed by abstracting, extracting, reviewing and analysing or compiling.
5. Packets of materials in different forms are sent to users.
6. Users are asked to fill out feedback questionnaires in order to find out usefulness of packages and update user's profile

## Study Session 6

### **SAQ 6.1. (Measuring Learning Outcome 6.1)**

Information analysis and consolidation is one of the most useful strategies of information repackaging; it provides the following advantages:

- 1 Duplicate and poorly produced materials can be weeded out,
- 2 Users can be saved the lengthy and time-consuming perusal of materials on a particular topic, they can also duplicate and poorly produced materials can be weeded out.
- 3 It is possible to provide with a more comprehensive and authoritative view of existing information on a particular topic quickly and at less cost and user can able to draw new knowledge from these materials.

### **SAQ 6.2. (Measuring Learning Outcome 6.2)**

After you have identified, the information that are there contained are evaluated to ascertain their merits, validity and reliability.

### **SAQ 6.3. (Measuring Learning Outcome 6.2)**

You carry out an analysis of information to identify and extract most salient features conveyed by the given source and if necessary, perhaps if the information are either inaccurate or require rearrangement you carry out a restructuring.

## Study Session 7

### **SAQ 7.1. (Measuring Learning Outcome 7.1)**

- a. Digitisation is the conversion of any fixed or analogue media such as books, journal articles, photos, etc. into electronic form through scanning, sampling, or in fact even re-keying.
- b. The phrase library without walls refers to Digital Library

**SAQ 7.2. (Measuring Learning Outcome 7.2)**

Some of the more serious issues facing the development of digital libraries include;

- 1 The first issue is that of the technical architecture that underlies any digital library system.
- 2 Another issue is that of building of digital collections.
- 3 Another important issue is preservation. That is keeping digital information available in perpetuity.
- 4 We also have the issue of copyright.

**SAQ 7.3. (Measuring Learning Outcome 7.3)**

1. Information explosion
2. Searching problem in traditional libraries
3. Low cost of technology: When we consider the storage capacity of digital document and its maintenance then it can be easily realized that the cost of technologies is much more less than that of traditional libraries.
4. Environmental factor: the use of digital libraries is the cleanest technology to fulfil the slogan "Burn a CD-ROM save a tree"
5. New generation needs

**SAQ 7.4. (Measuring Learning Outcome 7.4)**

Some of the key advantages of digital libraries include;

1. The user of a digital library need not to go to the library physically, people from all over the world could gain access to the same information, as long as an Internet connection is available.
2. Digital libraries can be accessed at any time, 24 hours a day and 365 days of the year
3. The same resources can be used at the same time by a number of users.
4. Digital library provides access to much richer content in a more structured manner.
5. The user is able to use any search term following to the word or phrase of the entire collection.
6. Digital library will provide very user friendly interfaces, giving click able access to its resources.

You may look through section 7.2.1 for further details.

## Study Session 8

### **SAQ 8.1. (Measuring Learning Outcome 8.1)**

Word of mouth is the passing of information from person to person by oral communication, which could be as simple as telling someone the time of day. Mass media on the other hand has to do with concepts such as television, radio, newspapers and social media.

### **SAQ 8.2. (Measuring Learning Outcome 8.2)**

In the rural setting, one of major ways through which information gets to the people is word of mouth. The reasons might not be far from the availability and technicalities of mass media technologies..

### **SAQ 8.3. (Measuring Learning Outcome 8.2)**

In urban centres where there is electricity, the spread of major news items within the community is learnt by majority of the people through radio, television and newspaper.

### **SAQ 8.4. (Measuring Learning Outcome 8.3)**

Some of its major advantages include;

- Informal networks are seen to complete and sometimes to enhance the existing arrays of informal activities in the diffusion of information
- It is less costly compared to planned formal systems
- It is readily available to a wider population of users
- It has a relatively high speed in bringing word of new development to users.

### **SAQ 8.5. (Measuring Learning Outcome 8.4)**

1. Informal network are more usable by the audience more than the formal communications. Audiences tend to prefer informal communications.
2. Information disseminated by the informal channels is current. The information reaches audiences while it still contains a high proportion of active researchers involved in the work in similar areas.
3. Scientist interacting informally are willing to speculate about their work. They discuss their mistakes and successes.