

# INFS 111

# INFORMATION IN SOCIETY

## Session 4 – BARRIERS TO INFORMATION TRANSFER

Lecturer: S. Nii Bekoe Tackie, School of Information and Communication  
Studies, Department of Information Studies  
Contact Information: [snbtackie@ug.edu.gh](mailto:snbtackie@ug.edu.gh)



# UNIVERSITY OF GHANA

College of Education

**School of Continuing and Distance Education**

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# Session Overview

- As in most situations in life, there are barriers or challenges to the effectiveness of any communication process.
- You therefore need to know each one of them in order to enhance your communication process.
- At the end of the session, you will be able to:
  - narrate the problems of information dissemination and
  - describe the barriers to communication

# Session Outline

The key topics to be covered in the session are as follows:

- Topic: Introduction
- Topic Two: Technical/Infrastructural Barrier
- Topic Three: Semantic/Linguistic Barriers
- Topic Four: Barriers to Effectiveness
- Topic Five: Legal and Socio-cultural Barriers
- Topic Six: solutions to the barriers of Information Transfer

# Reading List

- Lester J. and Koehler W. C. ( 2007). *“Fundamentals of Information Studies: Understanding Information and Its Environment”*. Second Edition. Neal-Schuman Publishers, New York.
- Debons, Anthony. (2008). *“Information Science 101.”* Plymouth, Uk: The Scarecrow Press, Inc.

Topic One:

# INTRODUCTION

# Introduction

- The session explains the barriers or constraints that impede the smooth and fast dissemination of information from the information provider to the information user.
  - Certain extraneous factors known collectively as noise can disrupt the process of information transmission
  - Noise, therefore, is regarded as the number one enemy in information communication.

Topic Two:

# **TECHNICAL/INFRASTRUCTURAL BARRIER**

# Lack of or Insufficient Technical Experts

- Modern information systems are:
  - formal and technology-based,
  - The electronic and sophisticated equipment require special skills to.
    - design,
    - install,
    - operate
    - manage,



# Lack of or Insufficient Technical Experts

In Ghana:

- shortage of professionals with the appropriate skills for these tasks. eg,.
  - scientists,
  - technologists,
  - systems and information analysts,
  - programmers and information managers
- lack of a congenial scientific and technological environment.
- users.
  - users need appropriate skills to be able to access or evaluate and use information materials available to them in the manual and electronic systems (especially the Internet).

# Weak and Inefficient Physical Infrastructure

- The communication of information requires:
  - modern equipment such as computers and their accessories
  - telecommunication technologies with large enough bandwidth
  - power or electricity
  - Noise
- In Ghana and Africa:
  - technical items for processing and communicating data and information are not widely available
  - there are no pervasive (widespread) infrastructure networks at the national, regional and international levels
  - in-country network infrastructures are still underdeveloped in terms of geographical coverage
  - Teledensity, is still small.
    - the bulk of the population has no access to the telephone and, therefore, cannot send or receive information by this device which is considered basic in developed countries.
  - service quality and, therefore, performance is largely low.

Topic Three:

# **SEMANTIC/LINGUISTIC BARRIER**

# Introduction

- Communication is deemed to have been completed successfully when the sender and recipient of the message are in one accord as to what the message means.
- Language can become a barrier in the dissemination of information;
  - » language problem.
  - » lack of proper understanding of the message by its recipient.

# Meaning and Understanding of Meaning

Communication failure may result from:

- the inability of the recipient to understand the message.
  - The message may be in a language the recipient does not understand.
  - The message may be full of technical and professional jargon.
  - Differences in the level of education between the sender and the recipient.

# Other Aspects of the Language Barrier

- Languages of scholarly communication
  - Secondary scientific and technical literature is published in five main languages –
    - English
    - French
    - German
    - Japanese
    - Russian
  - English leads with about 70%.
    - This suggests that nearly 70% of scholarly literature may be inaccessible to scholars who are not English speaking, unless they make a deliberate effort to learn that language.

# Multilingualism as the Answer

## Multilingualism:

- The use or expertise in the use of several languages.
- Multilingualism should be encouraged among scholars to eliminate or lessen the problems of information dissemination that the dominance of one language presents.
  - Multilingualism in journal publications should be encouraged.
  - The provision of abstracts in English in foreign language papers and vice versa.
  - Multilingualism and the provision of translation facilities on the Internet are being actively encouraged by UNESCO.

# Multilingualism as the Answer

- The need to improve the tools for organizing and disseminating information in information systems for users.
- Development of techniques or methods of organizing and ensuring the easy flow of information materials.
- Artificial languages
  - ✓ classification,
  - ✓ indexing,
  - ✓ cataloguing
  - ✓ methods of bibliographic control.



Topic Four:

# **EFFECTIVENESS BARRIER**

# Introduction

- Effectiveness barrier;
  - sometimes called the influential level of noise.
  - looks at how effective the communication has been in terms of the recipient's reaction to the message or information he/she has received.
  - affects the recipient's reaction to the message or information.
  - poses the questions:
    - how does the receiver react to the message received?
    - why did the receiver not react to the message as expected by the sender?
    - how effective can the communication process be?

# Responses to the Question Posed by the Effectiveness Barrier

- First response:
  - Lack of appropriate infrastructure:
    - modern telecommunication equipment and connectivity
  - shortage of experts
    - scientist,
    - technologists
    - information analysts and managers
  - combined impact of the technical/infrastructural and linguistic/semantic barriers.

# Responses to the Question Posed by the Effectiveness of Barrier

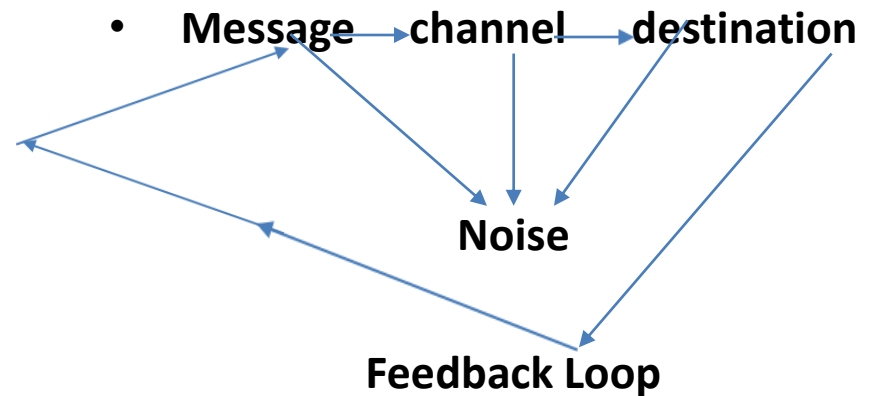
- Second response:
  - information handlers should endeavour to:
    - know their users
    - Know how users use the information they provide for them
    - be proactive
    - feedback from library patrons
      - User Studies is a method of obtaining feedback from users.

# Feedback

## Feedback Defined

- Feedback simply means response(s) from the recipient of a message to assure the message source (the sender) that the message has been received and understood.

## Feedback Process



# User Studies

## User Studies Defined

- the study of what people buy or what product or service they use and why.
- an important aspect of the field of market research,

## User studies in Libraries and archives

- Collects data that enable the information managers to identify the type of information that patrons need.
- Concerned with the ways in which current users obtain information.
- It deals with how the existing sources of information and their linkages might best be used to obtain information users.
- Collect data about the environment in which an information system works,
  - identifying the users,
  - Users needs,
  - factors that may impede access to flow of information

Topic Five:

# **LEGAL AND SOCIO-CULTURAL BARRIERS TO INFORMATION TRANSFER**

# Legal Barriers to Information Transfer

- The laws and regulations:
  - Are designed to protect and defend individual national rights and interests.
  - In their enforcement, these same laws and regulatory mechanisms sometimes become impediments to the free flow and sharing of information e.g.
    - copyright and intellectual property laws
    - taxes
    - national security laws



# Copyright and Intellectual Property Laws

- Copyright and intellectual property provision;
  - constitutes standards established by the World Intellectual Property Organization (WIPO) of the United Nations.
  - designed to protect the intellectual property, creative products and inventions that are the results of the intellectual or artistic efforts of certain individuals or groups in society.
    - authors,
    - creative artistes
      - musicians,
      - artists
      - painters,
      - sculptors,
      - inventors, etc.

# Copyright and Intellectual Property Laws

- Objective of copyright protection is to restrict the use of a product for commercial and other purposes in order to ensure that;
  - the right owner enjoys the fruit of his or her labour.
  - works transfer to the public domain 50 years after the death of the author.
  - if an author or a designer continues to live for 50 years after he or she creates a work, the length of copyright protection is 100 years.
- In spite of this standard, duration of copyright varies from country to country, e.g.
  - in Ghana, is Life + 70 years.

# Copyright and Intellectual Property Laws

## Published print;

- protection is symbolised by the well-known copyright icon © and accompanying statement: “All rights reserved”;
  - prevent the reproduction of materials by the general public without the express permission or acknowledgement of the copyright owner. Eg. “shrinking of content in the public domain”.
- The copyright of publications or literacy products is a major concern to librarians, archivists and information scientists.

# Copyright in Ghana

- Dealt with by the Office of the Copyright Administrator or Copyright Office.
- Focus has been on violations within the music industry
  - Copyright Law of 1985 (PNDC Law110);
  - made provision mainly for the protection of the music industry,
- Copyright Law of 2005 (Act 690)
  - recognizes and covers all areas of intellectual and creative products.
  - Section 21 of the current law gives special treatment to librarians and archivists.
    - stipulates that copying is restricted to one single copy by reprographic reproduction
    - for more copies; permission of the rights holder must be sought.

# Violation of Copyright

- Copyright violation is a global problem
  - Download of materials from the Internet without acknowledging owner.
  - Photocopying of a whole document/materials due to:
    - High cost of printing materials such as machines, paper, and other printing materials
    - Insufficient expert personnel in the printing industry
    - Lack of effective sanctions against violators of copyright, and
    - A rather long period of copyright protection.

# Fair Use

- Embedded in copyright law.
- Permits librarians to make reasonable individual copies or portions of most copyrighted works without reference to the owners.
- Copy Ghana;
  - represents literary rights of authors,
  - Objective:
    - strike a deal with copiers in organizations
  - is not making much headway.
    - Excessive copying continues
    - the penalty for violation is ridiculously low

# Censorship

- The action or policy of removing parts from news and news bearing objects, e.g. Books, films, the media, etc., on the excuse that they are politically unacceptable, offensive or a threat to security.
- Tended to take place more in non-democratic environments, largely in developing countries and countries with communist systems of government.

# Censorship in Ghana

- Has been a persistent issue in the country's 60 years history.
- Punishments/penalties
  - Banning:
    - The Pioneer Newspaper
    - The Legon Observer respectively, are
  - Jailed/exiled.
    - Individuals in the media and outside
    - Resulted in what, was dubbed the '***culture of silence***'



# Oath of Secrecy

- Denial of access to some information described as classified;
  - information held by the security agencies e.g.
    - Armed Forces, the Police, Prisons and Immigration Services.
- May be declared as such by law and for a specified number of years;
  - 30 years in Ghana.
- Violates the right to know or the right to information;
  - Information Bill has been before Parliament for several years now and currently the centre of debate.
  - The Right to Information Bill when passed into Law is expected to make official information more easily accessible to the general public.

# Socio-Cultural Barriers

- The socio-cultural barrier emanates from three sources:
  - **the individual/personal source**
    - level of education
      - affects his/her level of awareness
      - psychological make up
  - **personal characteristics**
    - the societal level
    - time and space
      - distance from the library
      - The gender factor in the cultural environment
  - **the institutional level**
    - Inadequate tools for packaging information for users
    - inadequate knowledge of patrons
    - Lack of anticipation of patrons needs

# Man as a Social Animal

- Human beings live in communities;
  - international level
    - globalized village
  - national level.
  - macro level of the local community
  - micro level of the nuclear family

# Culture and its Manifestations

## The elements of culture

- art
- literature
- Music
- dance
- foods we eat
- cultural expressions.
- environment
  - the community in which one resides

# Culture and its Manifestations

- All the elements of culture operate at the;
  - Personal/individual level
    - A person's level of education
    - Psychological factors
  - Societal level.
    - position of women and children
  - Institutional level

Topic: Six :

# **Solutions to the Problems of Barriers in Information Transfer**

# Introduction

The possible solutions include:

- Investment in human resource and skills development.
- Investment in the development of efficient ICT infrastructure.
- Promotion of multilingualism.
- The formulation of a National Information Policy.

# Solutions to the Technical/Infrastructural Barrier

- Information systems should invest seriously and quite heavily in human resource development;
  - proper training
  - employment of the right calibre of personnel
- ICT infrastructures should be strengthened at the local, national and international levels into viable networks.
- Government;
  - provide financial support for infrastructure acquisition, installation, and human resource development.
  - networking at the regional and international levels



# Solutions to the Linguistic Barrier

- Recognition of the problem
- Multilingualism
- Provision of translation facilities

# Solutions to Legal Barriers

- Laws should be friendly
  - respect the rights of citizens by striking a balance between these and protection of right owners
- A National Information Policy (NIP) should be put in place.
- Passage of the Freedom of Information Bill in the shortest possible time.

# Solutions to the Socio-cultural Barriers

- Provision of well resourced, automated libraries with Internet facilities at all levels of education.
- Empowerment of the Public Library System.
- Cultural practices that demean women and children should be discouraged through education.

# References

- Buckland, Michael K. ( 1997). “What Is a ‘Document’?”. Journal of the American Society for Information Science. 48 (September): 804- 809.
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- Derr, Richard L. (1985) “The Concept of Information in Ordinary discourse.” Information Processing & Management, 21: 489-99.