



MINISTRY OF EDUCATION

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Organisation Of American States

**A Guide to Effective Internet Searches
The Fast and Simple Way**

Library Training Workshop

November, 2001

Revised May 2005

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Bahamas Library Service

Ministry of Education

Nassau, Bahamas

ACKNOWLEDGEMENTS

This manual was initially compiled for training participants of Basic Internet Searches Course sponsored by the Ministry of Education and the Organization of American States (OAS) Automation, Networking and Connection of Bahamian Libraries to the Internet project.

A great debt of gratitude is owed to Ms. Nellie Brennen, former Assistant Director (Public Libraries) for her assistance in reading various drafts and kind suggestions of organization of materials for the manual. Heartfelt thanks to Mrs. Juliet Mallet Phillip, Director of OAS, and staff, Nassau, Bahamas for patiently working with our office to see us through the project.

In memory of my loving sister, Beatrice.

To my dear mother, and Dennis, my devoted husband for his love and patience as I worked late at nights to complete the manual. A debt of gratitude to the rest of my family and friends for their support.

ISBN 976-8170-72-7

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AIM OF TRAINING PROGRAMME

This programme is intended to assist library and information staff in conducting effective Internet searches in order to provide library users with accurate and up-to-date information in an efficient and timely manner.

OBJECTIVES OF THE PROGRAMME

At the end of the workshop, the participants will be able to:

- Define topic of research /search question and context for search using the Internet;
- Name and explain the difference between web-based search services and commercial search services;
- List examples of each service on the Internet;
- Conduct a search, and record steps and strategies employed;
- Assist users to locate and retrieve information from the web effectively and efficiently;
- Evaluate information obtained from the Internet;
- Discuss some critical issues of use of the Internet in public libraries;
- Contribute information for a manual on governing the use of the Internet in public libraries in The Bahamas.

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1

INTRODUCTION

1.1 A Guide to Effective Internet Searches in the Library (10 hours)

1.1.1 This guide describes the training that will be carried out in the workshop on how library and information staff could conduct effective searches on the Internet to help library users gain maximum benefits of research.

1.1.2 The workshop will introduce participants to a brief history of the Internet, its volatility and variety of useful resources. The main thrust of the course will be to equip participants with a working knowledge of the contents of the Internet and boost their ability to locate and retrieve information effectively and efficiently. To achieve this, a large portion of the course will, therefore, consist of 'hands on' exercises in searching the Internet.

1.1.3 During the training, participants will also play an active role in group discussions on crucial issues involving Internet use in public libraries. Subsequently, information gathered will be encapsulated in a manual for use in all libraries.

1.1.4 At the end of the workshop, it is expected that all participants will not only have a wider knowledge of the potential of the Internet in library research, but will be equipped with tools and skills to find quality information on the Internet and provide satisfactory answers to patrons' queries.

2 AN OVERVIEW OF THE INTERNET

2.1 What is the Internet?

2.1.1 The Internet is a network of computers. Clients can link to the Internet via an Internet Service Provider (ISP). Some examples of ISPs in The Bahamas are Batelnet; Bahamas OnLine; Coral Wave, Cable Bahamas; and Speedway (or Future Net).

2.1.2 The Internet began in the late 1960s when the U.S. military or Department of Defense's Advanced Research Project Agency (ARPA) used electronic communication to allow government researchers to collaborate in military projects by sharing their computer files. In the late 1980s, the Department of Defense commissioned all sites to change from ARPANET to the National Science Foundation (NSF) networks known as NSFnet. (Katz,1997).

2.1.3 In time, universities, businesses and government sites were added, followed by private companies and individuals. Today, the Internet electronically connects million of persons around the world.

2.2 World Wide Web

2.2.1 The Web began in Europe in 1989 and became popular in the mid 1990s. It is estimated that, over three hundred and fifty million (350,000,000) websites provide information in formats such as graphics, sound, video and animation. The number of web sites increases at an astounding rate as businesses, organisations and individuals all use the web to advertise or share information.

2.2.2 The Web differs from the Internet in that it is not a network but a set of software programmes. These programmes are used on computer networks as well as the Internet. The web is simply a segment of the Internet that is growing at a phenomenal rate.

3

INTERNET RESOURCES

As information needs increase, Internet resources are becoming invaluable to educators, librarians, teachers, students, and to the general public at large. The resources comprise:

- Web-Browsers
- Web Directories
- Databases
- Online electronic texts and journals, dictionaries, encyclopedias, maps, catalogues and indexes
- Search Engines
- Internet E-mail programmes
- Web-Based Mail Services
- Web Discussion Groups/Listservs/Chat Rooms
- News Sites

Each of these resources can be located on the World Wide Web by typing in its specific address, called a Universal Resource Locator (URL); e.g., <http://www.bwibooks.com>. This is the Internet address for a company that supplies books to public libraries.

3.1 Web-Browsers

A web browser can be simply defined as the software or client programme that allows a user to look at the World Wide Web pages that are on the Internet. Some popular browsers are:

Internet Explorer: <http://www.microsoft.com>

Netscape Navigation: <http://www.netscape.com>

3.2 Databases

A database is a large collection of data organised in a way that facilitates rapid search and retrieval. Some database services charge a fee for accessing information; e.g., DIALOG, one of the oldest commercial databases, provides accurate, authoritative and up-to-date information for academics and the general public. Some database addresses are:

www.dialog.com

ERIC (provides resources for teachers, educators and the general public)
<http://www.eric.com/>

MEDLINE (for the medical profession)
<http://www.medline.com/>

MedWeb (Emory University)
<http://www.medweb.emory.edu/>

Argus Clearinghouse (Central access point for guides which identify, describe, and evaluate Internet-based information resources)
<http://www.clearinghouse.net>

3.3 Web Directories

Web Directories are organised by subject, usually with a top-down hierarchy. These resources differ from search engines because they are organised by people instead of by electronic robots. (Vine, 1999). The home pages of many web sites provide a directory or index to the contents of the site.

3.4 Sources of Online Electronic Texts, Journals, Dictionaries, and Encyclopedias

Maps, Indexes and Catalogues can also be searched on the Web. Useful addresses are:

Internet library for Librarians
<http://www.iplorg/reading/books/>

Berkeley Digital Library
<http://sunsiteberkely.edu/>

Encyclopedia Britannica
www.britannica.com

Oxford English Dictionary
<http://www.oed.com>

Other dictionaries on the Web
<http://www.helsinki.fi/~hkantola/dict.html>

3.5 Search Engines and Search Facilities

Single source search engines allow users to search specific terms and combinations of words and phrases. These include:

Altavista
<http://www.altavista.com>

Google
<http://www.google.com>

Ask Jeeves
<http://www.ask.com>

Go To
<http://www.overture.com>

Ask Jeeves for Kids
<http://www.ajkids.com>

Northern Light
<http://northernlight.com>

Hotbot
<http://www.hotbot.com>

Lycos
<http://www.lycos.com>

Yahoo
<http://www.yahoo.com>

3.6 Bahamian Websites of Special Interests to Students & Employees

<http://bahlibs.org>

<http://www.bahamas.gov.bs>

<http://Bahamaseducation.com>

<http://www.cob.edu.bs/>

3.7 Meta Search Engines search many indexes all at once. Examples are:

MetaCrawler (searches about nine search engines all at once)
<http://metacrawler.com>

Dogpile (searches web, Usenet and File transfer Protocol-FTP search tools)
<http://www.dogpile.com>

Debriefing (English and French versions)
<http://www.debriefing.com/>

3.8 Internet E-mail Programmes

Outlook Express

<http://www.com/ie/download>

Netscape Messenger

<http://www.net.com/computingdownload>

3.9 Web-Based Mail Services

Yahoo

<http://mail.yahoo.com>

Netscape

<http://netscape.net>

4. WEB DISCUSSION GROUPS/ LISTSERVS / CHAT ROOMS

Yahoo Chat Room

<http://chat.yahoo.com>

Training for Librarians and other Information Professionals

<http://www.kovacs.com>

5. NEWS SITES

The Nassau Guardian

<http://www.thenassauguardian.com/>

ABC News

<http://abcnews.com>

CNN News

<http://cnn.com>

NBC News

<http://Nbcnews.com>

<http://msnbc.com>

Washington Post

<http://www.washingtonpost.com>

CBS News

<http://cbsnews.com>

New York Times

<http://www.nytimes.com>

ESPN

<http://www.espn.com>

CBC (Canada)

<http://www.cbc.ca>

BBC (United Kingdom)

<http://www.bbc.co.uk>

ABC (Australia)

<http://www.abc.net.au>

Deutsche Welle (Germany)

<http://www.dwelle.de>

6. BOOLEAN SEARCHING

Boolean logic is an algebra that allows operations on sets of elements. The most common Boolean operators are AND, OR and NOT (Harter, 1986). Experienced searchers have observed that using Boolean operators with search engines may prove a challenge for novice searchers. However, Northern Lights and Alta Vista accommodate Boolean operators efficiently. With sophisticated commercial online search services such as DIALOG, the use of these operators is imperative if effective search is to occur.

6.1 Some Search Topics/Questions

- Anthrax
- The Arawaks
- Bahamian Musicians
- Caves in the Bahamas
- Classification of Animals
- Computer Programme at my school
- Diabetes
- Domestic Violence
- Farming in The Bahamas
- High Blood Pressure
- HIV/AIDS
- Industries
- Islands of The Bahamas
- Law Enforcement Agencies
- Long-line Fishing
- National Symbols of Bahamas
- Nutrition
- Religions In the Bahamas
- Terrorism/Bio-Terrorism
- Tourism
- Types of Family

6.2 Researching a Topic

Exercise 1

Choose the following topic: *Computer Programme at My School* .

Discuss the preliminary steps, search strategies and processes involved in locating information on this topic.

v **Scenario:**

A schoolteacher decides to start a computer programme at his school. He needs information to get started; therefore, he visits the public library in his community for information.

v **Query:**

I would like to start a computer training programme at my school. Do you have information on what should be included in a computer training programme for elementary schools?

Tip: Put your search strategy on paper first, go to the Internet only when search question is clear in your mind.

Step 1 The Reference Interview

Determine the information needs of the client by listening carefully to his or her query. If the concept is not clear, conduct a brief reference question interview to determine what is being asked. Then formulate the search question. For example:

- ‘What specific grade(s) in the elementary school will be participating in the computer programme?’
- ‘What information is available on developing a curriculum for computer literacy at the elementary level?’

Step 2 Identify Concepts and Synonyms

Identify the primary *concepts* in the research question.

- Computer Programme
- Elementary School /computer curriculum

Identify alternative terms or *synonyms* that may be used.

- Computer Science/ Computer Technology/Computer Literacy
- Elementary schools/ primary schools/ elementary students

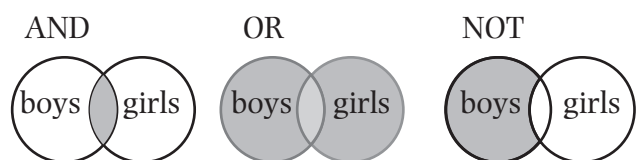
Step 3 Choose Search Engines

Choose a search engine and a database (e.g. ERIC) to search the topic.

Step 4 Search Strategy

Use Boolean operators such as (AND) (OR) (NOT)

Note: Use NOT with caution. Sometimes this operator narrows or broadens the search too much, subsequently excluding valuable information.



Step 5 Identify Searchable Terms

- Computer programme AND fifth grade students
- Computer curriculum AND primary students
- Computer Training AND elementary students
- Use natural language

Type in the following terms in the search box of the search engines you use:

Teaching / computer / Elementary / students

Step 6 Analyse Search Results

Analyse the search results and determine which results are appropriate for the project you are researching.

Compare and contrast search results from database and search engines.

Exercise 2

Topic: **Anthrax**

Scenario: The Doctors' annual medical conference is to be held at the Marriott Crystal Palace from November 19th to 23rd. A physician is assigned a presentation on the topic "*Anthrax – its threat to humans*". Beside physicians and nurses, his audience will also comprise laymen and members of the general public.

A doctor visits one of our Public Libraries and asks the library staff for information on the subject.

Questions

- What preliminary steps should the library staff member take before he/she searches for the information?
- Describe the strategy and search process that are employed during the search and at end of the search.

7 EVALUATING INTERNET INFORMATION

Since the Internet for the most part is unstructured, it requires careful search to obtain reliable and up-to-date information for our library users. The following checklist will assist in the selection of useful information.

A Checklist of Questions For Evaluating Web Sites

1. Who is the author or source?
2. What are the author's reputation and qualifications in the subject?
3. Is the Information on the site accurate?
4. Is the Information presented in an objective, balanced manner?
5. How does the site compare with other sites on the same subject?
6. Does the site contribute something unique on the subject?
7. Is the material on the site covered adequately?
8. How current is the information?
9. Is the site appropriate for the intended audience?
10. Is the information well written?
11. How stable is the connection to the site?
12. How well is the site maintained?
13. Does the site tell you when it was last updated?
14. If there are links to other site do they work?
15. Is it easy to move around and locate information on the site?

Checklist prepared by Rita Vine
Gerstein Science Information Centre, University of Toronto
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8 INTERNET SEARCHING: CHALLENGES FOR LIBRARY STAFF

8.1 Online retrieval of information, whether on a commercial service or the Web, presents varying degrees of challenges to librarians, information professionals, and search specialists. Inconsistencies and frequent changes to search engines, coupled with large numbers of irrelevant hits to queries, can be daunting not only to novices but even to expert searchers. Therefore, to be successful, one must develop a positive attitude, acquire information skills, use intuition, and exercise patience.

8.2 Most of all, the information intermediaries must be willing to collaborate with fellow colleagues and other information professionals and clients whom they serve. Each searcher will improve with practice and experience.

8.3 As Internet technologies improve and the invention of new methods of delivery become available, it is anticipated that we will meet the information needs of our clients to an even larger degree in the near future.

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GLOSSARY

Dialog Box

Small box that appears in either the Windows or Macintosh operating system to allow the user to input information

FTP (file transfer protocol)

Internet communication protocol which allows the transfer of files from one machine to another. This is often used to retrieve or send large files, such as programs.

Host

Machine which acts as a server, and sends files across the Internet.

Hypertext

Information format which allows the reader to move among related topics by means of links. Hypertext is represented in the World Wide Web as colored, underlined text. To activate a hypertext link, move the cursor (usually with the mouse) to the text, and click.

HTML (hypertext mark-up language)

A language for describing structured documents, composed of simple ASCII characters. HTML allows the creation of documents with pictures, words and hypertext links. Nearly all documents on the WWW are written in HTML.

HTTP (hypertext transfer protocol)

A communication protocol for the internet and the World Wide Web which allows linking of documents, and portions of documents, across the globe by means of hypertext.

Mosaic

The first web browser to allow the combination of images and text on the same screen.

Netscape

The most popular of many currently available web browsers.

Protocol

A formal set of rules by which two separate computers communicate.

Robot

Also known as a "Spider," a robot is a machine which scours the World Wide Web, examining URL's and bringing descriptions of them back to a database, usually for use by a WWW search engine.

Server

A computer which listens for requests for files to arrive across the internet. A WWW server receives requests from a web browser, such as Netscape, and sends the information back to the requesting computer.

URL (universal resource locator)

An address on the internet, which includes the communication protocol, individual machine name, directory and file name. The current URL is displayed in the "location" window of Netscape.

Web Browser

A program, such as Netscape, Mosaic, or Lynx, which helps a user communicate with other machines across the internet and the World Wide Web. Web browsers either include or execute programs which allow communication by several protocols, including: http, gopher, telnet, FTP, and electronic mail.

World Wide Web

Also known as the "WWW," or "The Web," this is actually a subset of the internet which largely uses hypertext transfer protocol (http) to link various addresses, or URL's, together. The WWW is popular because it allows the creation and transfer of documents which incorporate both formatted text and pictures.