

Library Guides Series No. 1

GUIDE TO SEARCHING & RETRIEVING INFORMATION FROM UNIVERSITY DIGITAL LIBRARY

INTRODUCTION

What is an information search?

- ☐ A search is the organized pursuit of information.
- ☐ It is based on the assumption that somewhere in a collection of documents, email messages, web pages, electronic books, online journals and other sources, there is information that you want to find but you have no idea where it is.
- ☐ It is a logical series of steps for planning and preparing an efficient way to collect pertinent information on a given topic.
- ☐ A search strategy varies depending upon the topic, the nature of the subject, and what type of information is needed.

What is the Importance of an information search?

- ☐ The more care and thought you put into your search strategy, the more relevant your search results will be.
- ☐ A well designed information search:
 - Saves you time in the long run
 - Allows you to search for information in many different places
 - Helps you to find a larger amount of relevant information
- ☐ The key to be successful in searching online is to use common search techniques that you can apply to almost any database, including article databases, online catalogs and even commercial search engines.
- ☐ This is important because searching library databases is a bit different from searching **Google**.
- ☐ The techniques described in this section will enable you to quickly retrieve relevant information from the thousands of records in a database.
- ☐ Searching and retrieving relevant literature is achieved a search processing using a search strategy

STEPS IN CARRYING OUT AN INFORMATION SEARCH

Step 1: Defining Your Search Question /Topic

- This involves understand the query or the information need
- Involves :
 - ✓ Deciding the topic of your search in precise terms
 - ✓ Establishing what exactly you are looking for
 - This process is known as *defining your search question, or framing an answerable question.*
 - This step reduces the amount of time spent sifting through irrelevant results and papers.

Step 2: Deciding Which Databases to Search

- Involves finding out which database is relevant to your information need in terms of subject coverage

Step 3: Formulating a Search Strategy

Search strategy: definition

- ❑ An organized list of key terms used to search a database.
- ❑ The search strategy combines the key concepts of your search question in order to retrieve accurate results.

How to formulate a search strategy:

(i). Identifying the Main Concepts in Your Question

- ❑ Involves:
 - Sharpening your focus since you are able to limit attention to specific aspects and give concrete direction to your search
 - Identifying the major concepts/Keywords in the query e.g. Keywords e.g. *side effects, drugs, youth*
 - These keyword become the words and phrases you type into the search boxes of the information sources you choose.
 - Also, think about the parameters or boundaries of your project.
 - What are you not going to consider or include?
 - Think about them before you start your search and be transparent about any information you decide to exclude.

(ii). Identify Alternative Terms to Correspond to those Concepts or Keywords

- To increase the likelihood of finding relevant material, you need to think about *alternative terms* that can be used to describe the same concepts
- You should think about:
 - ✓ Synonyms (e.g. mobile telephones, cellular telephones)
 - ✓ Plural/singular forms (e.g. women, woman)
 - ✓ Spelling variations(e.g. behaviour, behavior)
 - ✓ Variations of a root word (e.g. feminism, feminist, feminine)
 - ✓ Acronyms (e.g. chief executive officer, CEO) etc.
 - ✓ *Narrower, broader, or related*

(iii). Identify subject headings

- ❑ A subject heading is a specific word or phrase used to find and organize books and articles by topic. Subject headings can be a great way to easily find things related directly to your topic
- ❑ Subject headings are different from keywords in that they are specific terms assigned to a subject by an indexing organization
- ❑ Subject headings, also known as subject descriptors

Step 4: Conduct the search using appropriate techniques

- ❑ This involves use of any or more of the following terms:

i. Subject headings

- ❑ *Subject headings* describe the content of each item in a database. Also known as *descriptors*
- ❑ Use these headings to find relevant items on the same topic.
- ❑ Searching by subject headings is the most precise way to search article databases.
- ❑ It is not easy to guess which subject headings are used in a given database.
- ❑ Start with a keyword search, using words/phrases that describe your topic.
- ❑ Browse the results; choose 2 or 3 that are relevant.
- ❑ Look at the Subject or Descriptor field and note the terms used (write them down).
- ❑ Redo your search using those terms.
- ❑ Your results will be more precise than your initial keyword search.

ii. Keywords

- ❑ *Keyword searching* is how you typically search web search engines.
- ❑ Think of important words or phrases and type them in to get results.
- ❑ To find subject headings for your topic:
 - Look to see if the database has an online thesaurus to browse for subjects that match your topic

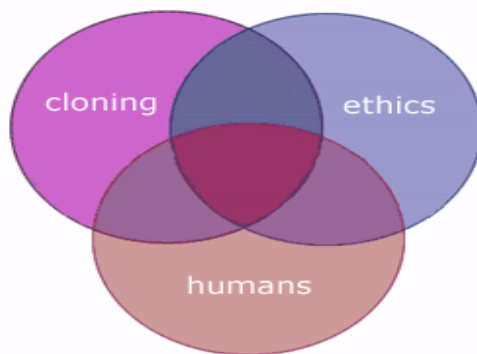
iii. Use of Boolean operators

- ❑ Boolean operators form the basis of mathematical sets and database logic.
- ❑ They connect your search words together to either narrow or broaden your set of results.
- ❑ The three basic Boolean operators are: **AND**, **OR**, and **NOT**.
- ❑ Why use Boolean operators?
 - ✓ To focus a search, particularly when your topic contains multiple search terms.
 - ✓ To connect various pieces of information to find exactly what you're looking for.

- Example:
second creation (title) AND Otieno (author) AND 2000 (year)

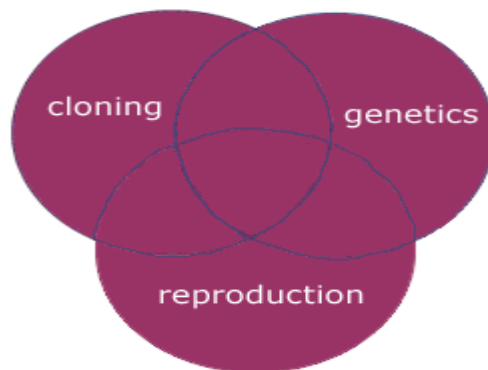
(a). Using "AND"

- ❖ Use **AND** in a search to:
 - ✓ Narrow your results
 - ✓ Tell the database that **ALL** search terms must be present in the resulting records
- ❖ Example: *cloning AND humans AND ethics*
- ❖ The purple triangle in the middle of the Venn diagram below represents the result set for this search.
 - ✓ It is a small set using AND, the combination of all three search words.



(b). Using "OR"

- ❖ Use **OR** in a search to:
 - Connect two or more similar concepts (synonyms)
 - Broaden your results, telling the database that ANY of your search terms can be present in the resulting records
 - ✓ Example: cloning OR genetics OR reproduction
- ❖ All three circles represent the result set for this search.
- ❖ It is a big set because any of those words are valid using the OR operator.



(c) Using "NOT"

- ❖ Use NOT in a search to:
 - ✓ Exclude words from your search
 - ✓ Narrow your search, telling the database to ignore concepts that may be implied by your search terms
- ❖ Example: cloning NOT sheep

(iii). Using Truncation and wild cards

(a) Truncation:

- Truncation, also called *stemming*, is a technique that broadens your search to include various word endings and spellings.
- To use truncation, enter the root of a word and put the truncation symbol at the end.
- The database will return results that include any ending of that root word.
 - ✓ Examples:
child* = child, childs, children, childrens, childhood
genetic* = genetic, genetics, genetically
- ❖ Truncation symbols may vary by database; common symbols include: *, !, ?, or #
- ❖ What to look for:
 - Root words that have multiple endings. Example: sun = suns, sunshine, sunny, sunlight
 - Words that are spelled differently, but mean the same thing. Example: color, colour
 - Truncation/wildcard symbols vary by database.
 - Check the help screens to find out which symbols are used.

(b) Wildcards:

- ❖ Similar to truncation, wildcards substitute a symbol for one letter of a word.
 - ✓ This is useful if a word is spelled in different ways, but still has the same meaning.
Examples:
wom!n = woman, women
colo?r = color, colour

(iv). Fields

- ❑ Records in library databases are comprised of fields containing specific pieces of bibliographic information. Common fields include:
 - ❖ *author*
 - ❖ *title*
 - ❖ *journal title*
 - ❖ *abstract*
 - ❖ *publisher*

- ❖ *date/year of publication*
- ❖ *subject/descriptor*

- ❑ How database fields improve your search
 - ❖ Limiting your search to specific database fields can yield more precise results.
 - ❖ For instance, if you are looking for books *by* Adam Smith instead of *about* him, it is more efficient to limit your search to the author field.
- ❑ To find various fields within a database, look for drop down boxes or menus to select the field you want to search.
- ❑ Then combine words and fields together with Boolean or proximity operators, depending on how precise you want to be.
- ❑ If you do not choose a specific field, the database usually reverts to a keyword search, where your words will be searched throughout the record.
- ❑ If your keyword search retrieves too many records (more than 50), try narrowing your search to retrieve a more manageable result.
- ❑ Information overload - too many results - can be a worse situation than finding only 10 very relevant results.

(v). Using Phrases

- ❑ What to look for
- ❑ Tips in using phrases to search
 - Most databases allow you to specify that adjacent words be searched as phrases.
 - Using parentheses or quotes around search words is a common way to do phrase searching, but not all databases or search engines use them.
 - Example: "genetic engineering"
 - **Hint:** It is often very easy to do phrase searching from the **Advanced or Guided** search in a database.

(vi). Proximity operators

- ❑ Many databases allow you to specify that the words you are searching are within a certain proximity of each other.
- ❑ Proximity operators are more specific than Boolean operators and make your search more precise.
- ❑ Examples
 - ❖ Proximity operators also vary by database, but some common ones include:
w# = with
With specifies that words appear in the order you type them in.
 - ❖ Substitute the # with a number of words that may appear in between. If no number is given, then it specifies an exact phrase.
 - ❖ Examples:
genetic w engineering (searches the phrase genetic engineering)

Hillary w2 Clinton (retrieves Hillary Clinton, Hillary Rodham Clinton, etc.)

n# = near

- ❖ Near specifies that the words may appear in any order.
- ❖ Substitute the # with a number of words that may appear in between.
- ❖ Examples:
cloning n3 human (retrieves cloning of humans, human cloning etc.)
- ❖ Consult the database Help screens to find out how to search by phrases or to specify proximity.

STEP 5: SAVING YOUR RESULTS

- ❑ Always save or print the useful article records you find. Most databases give you a few options, such as:
 - ✓ save - as a text file
 - ✓ print
 - ✓ email
 - ✓ Export - to reference software such as EndNote.

STEP 6: COMMUNICATE THE SEARCH RESULTS

- ❑ Email
- ❑ Flash disc

Important Library Contacts

- ❑ **Email:** **University Librarian:** librarian@chuka.ac.ke
Customer online Support: libhelp@chuka.ac.ke
- ❑ **Twitter:** @chukalib
- ❑ **Facebook:** Chuka University Library
- ❑ **WhatsApp:** Chuka University Library

