

Introduction to Search Skills

Introduction

This guide will show you how to plan and conduct an effective search to find relevant resources on your topic. Computing examples have been used to illustrate key points, but you can apply these techniques to any subject area.

Why do need to plan my search?

There are millions of library resources and internet websites which you can use to find information for your assignments but searching takes time. It can also be very frustrating if you cannot find exactly what you are looking for or if you are not sure what information is important.

Spending a few minutes to plan your search beforehand will help you to decide what is important so you can find relevant information easily.

How do I plan an effective search?

To have an effective search you need to consider your topic carefully and think about the type of information you wish to find. There are 4 main stages:

1. Define your topic and choose your search terms

The first step in planning your search is to think about your topic and identify the main areas that you need to research.

For example: If your topic was to 'Assess the main security risks for wireless networks, the main search terms would be **Security, Wireless** and **Network**.

You should also clarify what specific aspects of the topic or criteria that you are interested in for example: causes, risks, outcomes, costs, design, methods, effectiveness, etc.

2. Identify alternative search terms or phrases

There can be many ways of referring to the same topic. Authors may use different keywords depending on the context or their individual viewpoint. International differences in spelling and terminology may also be a factor.

For example:

- **Security** could also be referred to as protection, data integrity, privacy or malware depending on whether you are looking generally at security or a specific issue
- **Wireless** can also be referred to as wifi/Wi-Fi and other terminology could be cloud or mobile computing
- **Network** may also be referred to as a database or system, however there are also specific types of network such as mesh networks

A strong search strategy will include alternative search terms and be able to locate all research published on the topic.

3. Build your search strategy

Boolean search operators **AND**, **OR** and **NOT** link your keywords together and enable you to search more effectively.

AND – Narrows your search to only find records which contain all search terms. Searching for Data AND Security will find results that contain both these terms.

OR – Widens your search to include any of your search terms, but not necessarily both. Searching for Wi-Fi OR Wireless will find results that contain one or both these terms.

NOT – Excludes a term from your results. Searching for Network NOT Local will find results that include Network and do not include Local.

You can also search for an exact phrase of two or more words by surrounding it with quotation marks for example: “digital media”.

4. Apply limits to refine your search

Search limits may be used to refine your strategy and determine information quality. Most internet search engines only provide limited options to refine your search, for example by domain .gov.uk OR .ac.uk but academic electronic databases include a wide range of search limits.

Some of the most useful limits are:

Date Range - To ensure only the current information is displayed you can filter search results to show a specific date range for example last 5 years. This is also useful if you trying to find a particular article/event.

Format - You can choose whether to include all types of research in your results or focus on a specific type such as books, journals, conference proceedings, reviews, reports, newspapers, etc.

Subject Headings - Each resource in an electronic database is assigned a heading which represents the main subjects covered in the text. You can use this limit to narrow your search and find resources which are completely focused on your topic or contain a major mention of it.

Location - You may wish to focus on research from a particular country or region. This is particularly useful if your topic is based on medicine, healthcare, education or law as there are global differences in policies/standards.

Language - Some large electronic databases may also contain collections of international resources so you may find it helpful to limit search results to your native language, such as English.

5. Where should you search?

Electronic databases are the best sources of information for your academic assignments:

- You can search by keyword to locate relevant information quickly and easily
- Each database contains a variety of resources such as books, journals, proceedings, etc.
- Every resource is high-quality and has been written by a subject specialist or professional

Discover is LJMU's single search tool, it enables you to find information quickly and easily by searching across multiple electronic databases.

The **Electronic Library** at <https://www.ljmu.ac.uk/library/e-library> provides access to Discover, as well as **Databases** which offers a wide range of electronic databases you can use to search for specialist subject information.

Further Support

If you would like further information or training please contact your **Academic Engagement Librarian**. Contact details and lists of recommended resources for each subject are available online at: <https://www.ljmu.ac.uk/microsites/library/subject-resources/subject-guides>