Learn how to: Search the web more effectively for your assignments & research

Introduction:

• We’ve grown accustomed to going straight to the web when seeking information, and for many of us that probably means using a search engine like Google, Bing or Yahoo. Of course we use search engines all of the time when looking for information for our hobbies, booking tickets, looking something up on Wikipedia, buying and streaming music, online shopping etc. Most of the time we find suitable information to meet our needs.

• For your university assignments and research this may not always be the case. We recommend that you use the Library website as a starting point – it is a gateway to quality scholarly information.

• Of course you will probably also use Google or another search engine. You are likely to face some difficulties when it comes to using web search engines for university assignments: the sheer quantity of material, and the sometimes dubious quality of information that we find on the web.

• In 3rd level you are required to cite all of your information sources. Will your lecturers be happy with the sources you use? If not your marks are likely to suffer.

Note: Evaluation of information sources is covered in detail in the guide: ‘Learn how to evaluate information for your assignments and research’

Things to bear in mind:

• The size of the Web: probably over 555 million websites. The Indexed Web contains at least 7.97 billion pages (?). No one is sure as it is expanding all of the time.

• Anyone can publish on the web. There is little or no quality control. Problem: finding relevant scholarly material. This is not the case when it comes to Library resources.

• Google: uses a system called ‘PageRank’ to find the most relevant results for you. PageRank searches an index/database of web pages that Google compiles. This index is compiled from sites that are found by Google’s spider programs. These programs send the full text of sites/web pages to the Google index. PageRank retrieves results from the index based on word occurrence, proximity, location on page, links to the page, traffic etc. (about 100-200 ‘ingredients’). For the most part it is a keyword search.
How can you improve your search?

**Tip 1.** Use ‘Advanced Search’ options in Google and other search engines

**Tip 2.** Use Google Scholar and Google Books

**Tip 3.** Try other search engines – not just Google, Bing, Yahoo etc.

**Tip 4.** Don’t always use search engines, go straight to good portals and sites that are suitable for your topic/subject area

**Tip 5.** Always evaluate your search results for quality

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**Tip 1. Use Advanced Search options** (e.g. [Google advanced search](https://www.google.com/webhp?tab=wl#hl=en&client=chrome&source=hp&channel=onesearch&ie=UTF-8&q=advanced+search), [Yahoo Advanced Search](https://search.yahoo.com/advanced))

Advanced searching won’t guarantee that you find quality websites exclusively, but it may help you to control the sheer quantity of results.

**Example:** You have an essay to write on ‘the role that religion plays in the lives of Irish people who have emigrated’

**Step 1. Simple Search:** [See Video](https://www.youtube.com/watch?v=V55z5pVpJ8)

Many people will go straight to Google and perhaps type something like the following in the box:

![Google search](https://www.google.com)

Many of the results of this search may seem ok, however it’s not always easy to see who produced the information (and why) – i.e. is it trustworthy? Remember that anyone can edit Wikipedia, so this information cannot be cited in your assignments in 3rd level (more on Wikipedia later).

Note that if you change the word order of your search you get a different set of results:

- e.g. emigration religion Irish

This is because Google prioritises web pages that have your word order.

Also, you should take the time to consider the words you use for your search. In this example the word ‘Ireland’ could have been used instead of Irish, the word ‘Faith’ instead of religion, the words ‘immigration’, ‘migration’, etc. instead of emigration. You will retrieve different results in each case.
It’s always a good idea to **plan your search to ensure you use the correct terminology** for your assignment. Words like *the*, *is*, *on*, *or*, *of*, *how*, *why* are known as ‘stop words’ and are ignored by Google. Usually it’s **better to use keywords** rather than sentences in your search.

Note also that Google uses ‘word variations’ or ‘**automatic stemming**’ to search on the stem or root of a word that can have multiple endings. In our example *immigration* should also pick up words like *immigrant* and *immigrated*, while *emigration* should pick up *emigrant*, *emigrated* etc.

**Step 2. Advanced Search:**  
*See Video* 🎥

The ‘advanced search’ will give you more options. You will find it at the **bottom of the page** i.e. once you have completed a simple search, scroll to the bottom of the page and you will find ‘Advanced Search’.

You could try changing from ‘All these words’ (the default) to the following:

![Google Advanced Search](image)

This will retrieve web pages that have both the words ‘religion’ and ‘Irish’, as long as they also have one or more of the words ‘migration’, ‘immigration’, ‘emigration’ or ‘diaspora’.

Of course you will now get a lot more results, which is not necessarily a good thing, but it illustrates how **word choice** can make a big difference! Some of these new results might actually be more suitable for your needs (and many will appear on the first page or two of your results). In this example you could also search with *Ireland* instead of *Irish*, and perhaps *Faith* or *Catholicism* instead of *religion*. 
Step 3. To reduce the number of results

In the Advanced Search, scroll down to the ‘Then narrow your results by’ section. There are numerous options available. E.g. Under ‘Terms appearing’, instead of ‘anywhere in the page’ try ‘in the title of the page’. This reduces your results substantially. It may not be a perfect search, as lots of good links may have been omitted from your results, but it does give you some control over quantity if needed.

Other useful filters to try include: ‘last updated’, ‘site or domain’ (for example putting in .ie limits your results to sites within the .ie domain), ‘reading level’ etc.

Note: You can also search Google using ‘operators’. For further details see: Advanced search tips

- **phrase searching**: using inverted commas: e.g. “global warming”, “street theatre” (will search for the words together as a string)
- **~ operator**: e.g. ~religion (will look for synonyms e.g. spirituality, Christianity, Islam etc.)
- **OR operator**: e.g. Ireland OR Irish (will find either term)
- **– operator**: e.g. theatre –hospital (will find theatre, but not if hospital is also mentioned)

Another option is to use the ‘verbatim’ tool to search for exact words you type. Click on ‘more search tools’ on the left of the results screen, and then click ‘verbatim’.

Note also that Google sometimes personalizes your search results based on your past search activity on Google. Click here to find out how to disable this feature.
**Tip 2. Use ‘Google Scholar’ and ‘Google Books’**

Google Scholar enables you to limit your web search to ‘scholarly’ material. Generally that means material from scholarly books and journals. This should help you to find quality sources for your assignments and research. See video 🎥

For more about Google Scholar see here.

**Step 1.** In Google, click on ‘More’ at the top of the page, then ‘Even more’, and then go to ‘Scholar’. You can go to an Advanced Search by clicking on the arrow in the search box once you have completed a basic search:

![Google Scholar search example](image1)

If searching for material for the topic **‘the role that religion plays in the lives of Irish people who have emigrated’**, you could try:

![Advanced search example](image2)

This will retrieve thousands of results, but the most relevant ones are likely to be on the first few pages. Note that you can narrow your results by adding another specific search term, or filter by date, ‘where my word occurs’, ‘authored by’ etc.
The results will include books, journal articles and other scholarly papers. Some are full text, others are not. N.B. If you are on-campus you are more likely to gain access to the full text, as it may be a resource that UCC Library subscribes too/pays for. If you are off-campus you should ensure that you log in with your Library account first and search Google Scholar from the Library databases page. As with any material on the web, you must decide if the material is of sufficient quality for your assignment, even if you find it through Google Scholar.

**Step 2.** In the Advanced Scholar Search limit your search to ‘Where my word occurs in the title of the article’. Sometimes this can limit you too much (depending on the topic) but can be useful too at times. Try the search with *Ireland* instead of *Irish* for a slightly different set of results.

**Step 3.** Try searching Google Books. You will find it by clicking on ‘More’ at the top of the Google page. Many books on Google are free because they are ‘public domain’. Some large libraries in the U.S. are working with Google to digitise their books. Use the limits/filters on the left of the page, for example you can limit to ‘Preview and full view’ or ‘Full view’. Remember to check the Library catalogue to see if the book is in the Library.

**Note:** At the top of the Google screen look under ‘More’ and ‘Even More’ to find further tools to enhance your web searches:

e.g.  [Google mobile](https://www.google.com), [Blog search](https://www.google.com/blogsearch), [Translate](https://translate.google.com), [Maps](https://maps.google.com), [Images](https://images.google.com), [Email Alerts](https://mail.google.com) etc.

**See also:**  
- [www.googleguide.com](http://www.googleguide.com)  
- [Google Inside Search](http://insideGoogle.com)  
- [Microsoft Academic Search](http://academic.office.com) as an alternative to Google Scholar  
- [Bing Search Help](http://www.bing.com)  
- [Search Yahoo Effectively](http://www.search.yahoo.com)  

**Tip 3. Try other search engines:**

It can be easy to get into the habit of using the same search engine for everything. When looking for information for assignments you should try to use other search engines e.g. don’t always use Google. The following is a list of examples. You will find many more suggestions [here](http://www.google.com).

- **General Examples:** [Exalead](http://www.exalead.com), [Ask Jeeves](http://www.ask.com), [Yahoo](http://www.yahoo.com), [Bing](http://www.bing.com), [Kartoo](http://www.kartoo.com), [Scirus](http://www.scirus.com), [Microsoft Academic Search](http://academic.office.com) etc.
• **Semantic search**: e.g. Hakia, Kngine (supposedly able to understand the context in which the words are being used, i.e. results should be more relevant)

• **Metasearch**: e.g. Zuula, Metacrawler, Yippy, Search.com, Dogpile, (use several search engines simultaneously and aggregate the results into a single list)

• **The ‘Deep Web’** (material not accessible using a general search engine e.g. material within databases). e.g. Infomine, Complete Planet

• **Custom Search**: Google Custom search, Rollyo (create your own search engines using the sites you know and trust)

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**Tip 4. Use recommended gateways, portals & catalogues**

Rather than always using search engines you can save yourself a lot of time by going straight to the websites that are likely to be the most useful for your needs. Gateways and portals can help you to do so.

• **Some examples:**

  PINAKES, Internet Public Library, WWW Virtual Library, Infomine, Digital Librarian, Worldcat, DMOZ, Europeana, DHO Discovery (Gateway to Irish digital collections), Academicinfo.net, Voice of the Shuttle

• **See the UCC Library’s Subject Guides**

• **See also:**

  Internet Archive, Hathi Trust Digital Library, DRAPier, RIAN (access to Irish open access research), OAlster (access to open access research worldwide), iTunesU, World Digital Library, DOAB

• **Catalogues from other Libraries:**

Tip 5: Always evaluate your search results to ensure that they are of sufficient quality

Refer to the guide ‘Learn how to evaluate information for your assignments and research’
See also: The Internet Detective (online tutorial)

Scholarly resources are aimed at those working within a field of study, the purpose being to disseminate research within that discipline. Scholarly methods are used in order to make claims that are valid and trustworthy. These resources tend to be factual, methodical, scientific, based on clearly referenced sources and documentation.

Popular resources are aimed at a wider public/mass audience. The purpose is to entertain, inform, promote viewpoints, sell products and services. These resources tend to be more subjective, journalistic, based on personal accounts/impressions and opinion.

Questions to ask:

1. Who is it for?
2. Who is it by?
3. How is it written?
4. Why was it written?
5. When was it written?
6. What is the acceptance procedure?
7. Is there a format and structure?
8. Is the content objective?
9. Who published it?
10. Where is it indexed?
11. Appearance and advertising
12. Relevance to your topic

A Word on Wikipedia

A "wiki" can be edited by anyone who has the proper permissions; and because Wikipedia is completely open, anyone can edit anything. You can’t rely on information sourced from Wikipedia, therefore you should not reference it in your assignments.

But......it can be useful for ‘getting your head around’ something i.e. background information, understanding a word or concept and for finding relevant keywords for your search, and links and references.

N.B. We recommend that you use Library reference resources listed here.

See also: Researching with Wikipedia
A final word:

When you are looking for information for your assignments you should use the Library’s resources (print and e-resources). However if you are using the (free) web you should use it smartly, taking into account the tips that we have seen. This should save you time and hassle, and hopefully enable you to produce high quality assignments (and get better marks!).

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