

# Internet Search Tips

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## Introduction

There is more information available to us than ever before. The Internet is constantly growing and the way we access that information is changing. The Internet has revolutionised the way information is provided; anyone can publish whatever they like, we can read and watch news events as they happen, access expert opinions, get music and books instantly delivered to us and much more.

In the lifetime of the Internet, we have gone from going to specific websites to find information directly, to using search engines to interrogate millions of websites in one click. With the arrival of personalisation and digital footprints information is increasingly arriving to us without even needing to search. But how can we make best use of the Internet for academic research? ... Read on for some of our tips and suggestions.

## Evaluating sources of information

**"We've heard that a million monkeys at a million keyboards could produce the Complete Works of Shakespeare; now thanks to the Internet, we know this is not true." (Robert Wilensky)**

The most important thing to consider when using information from the Internet is why is the information there and who has provided it. Don't forget that for many the primary purpose of the Internet is to make money; in 2012 Google revenue was over \$50 billion, 95% of its revenues came from advertising (Statista, 2013).

### Evaluation checklist – what am I looking for?

**Authority** – Who has written the piece?

Is the author credible? (Try using the author search on Scopus, look them up on GoogleScholar, LinkedIn, and University web pages)

Is the text from a trusted, respected source? (Have a look at the publisher home page - have you heard of it? There are some journals out there claiming to be academic which are merely commercial enterprises; if they claim to be indexed by the larger publishers or directories check that they are really there. Good places to check are [Ulrich's](#), the [DOAJ](#), [ISI Web of Knowledge](#))

**Currency** – When was it written and published?

Has the climate of opinion changed? What's the issue/edition/publication/last updated date?

**Relevance** – Does it really meet your needs?

How closely related is the text to your subject? (While not discounting the art of serendipity, it is important to keep your searches focused. Just because something is interesting, it doesn't necessarily mean that it is relevant)

**Completeness**

Are there references to other sources for further study?

Does the author use evidence to back up his argument?

**Accuracy**

What is your impression of the grammar, punctuation and spelling?

Can the information be verified against another source?

Are the links and references accurate?

Phrases to be aware of and question:

“research has shown that ...” - what research?

“the project has overspent” - what project, what was the budget, how much?

**Bias**

What is the bias of the source?

Why was the information created (to inform, sell, persuade)?

Has the author been sponsored to produce the information?

Is the source trustworthy?

**Language style/tone**

Is the writing chatty, informal, reasoned, exaggerated?

Who is the target audience – is it suitable for your research?

## Internet search tips

### Search techniques

Before you start typing an essay question into a search box, think about what exactly you're expecting to find - use our guide to search theory and techniques:

<http://barrington.cranfield.ac.uk/inductions/how-to-find-information-for-assignments/search-theory-and-techniques>

### Take another perspective

If you are finding that the results just aren't what you want, take a fresh approach and use a different web search engine or save time and search across more than one web search engine at a time by using a meta-search engine such as [myallsearch](#) which cross searches nine search engines including Google, Bing, Yahoo and DuckDuckGo, all from one search field!

When you search the Internet the search engine will store data about the sort of things you have been looking for and will personalise results to you using this search history. Sometimes you may wish to break out of this bubble especially for academic research. For guidance on how your search results may be being filtered by your search engine, have a look at this guide: <http://dontbubble.us/>

### Take a look back in time

Have you ever returned to a website and found that the information you were looking for has moved or been removed entirely? The [Wayback Machine](#) is a web archive that allows you to go back in time on a url to see what used to be there.

### Take a scholarly approach

There are some search engines which focus on retrieving results from more academic institutions such as [Google Scholar](#). See below for more tips on Google Scholar.

### Search shortcuts

Using the following commands in your search box can rapidly make results more relevant

*“Double quotes for a phrase”* e.g. “systems engineering” this will ensure that words appear together in search results.

- *Minus sign to exclude a term* e.g. tank -fish. This will remove the word fish from results

? *Wildcard for alternate spellings* e.g. defen?e will look for both defense and defence

\**Truncation for alternate endings* e.g. comput\* will find computing, computer, computers

More search commands are available here: <http://www.exalead.com/search/web/search-syntax/>

\*Note: not all of these commands work in all search engines, for tips specific to Google see below\*

## Google search tips

### Things you should know about Google:

- Have a look at the most searched-for things on Google in 2013: <http://www.google.com/trends/topcharts?date=2013> and what people are searching for right now on Google Trends <http://www.google.co.uk/trends/> – what does this tell you about the nature of things most people are searching for on the Internet?
- Google is so effective because it personalises results according to your search history. If you want to get away from this, make sure you sign out of Google accounts so your cached information does not affect your search results. To see what is on your Google Dashboard: <http://www.google.com/dashboard/>
- Even if you sign out, information is cached on your computer which will affect your search results. This can be great for everyday searching - Google knows which cinema you want to visit, the holidays you have booked, the things you are shopping for at the moment etc. If you find you are getting stuck in a rut with academic searching, try clicking on the Web History link to disable your Web History and use the following shortcuts to private browsing:
  - Google Chrome to go incognito press the following keys: ctrl shift n
  - Firefox private browsing: ctrl shift p
  - Internet Explorer: ctrl shift p
  - Safari: go to the apple icon in the menu bar and select private browsing

### Google knows best

When searching using Google it will suggest alternative spellings, include synonyms of your search terms, return results that match similar terms to those in your search query and search for words with the same stem, like "sustainable" when you search for "sustain". If you need Google to search for your terms exactly as you enter them, use the 'Verbatim' search which can be found once you have run a search by clicking on "Search tools" under the search box and select the "All results" drop down menu.

### Useful Google commands

- To search for keywords within a site use site:[insert url] e.g. defence acquisition site:gov.uk

The site command is a very powerful search tool - more suggestions on how to use it to its best is available here: <http://googlesystem.blogspot.co.uk/2013/03/advanced-uses-for-googles-site-operator.html>

- If you find a really good website, look for ones that have similar content using related:[insert url] e.g. related:rusi.org
- To find documents try searching by filetype e.g. defence acquisition filetype:pdf

Alternatively you can go to the Advanced Search page (located by clicking on the cog icon in the top right hand of the Google homepage) which also guides you in using these commands and allows you to perform other functions such as a safe search, or filter by licence type.

The list of Google command shortcuts is ever growing and changing as the Internet evolves. Further Google specific search operators can be found here:

<http://support.google.com/websearch/bin/answer.py?hl=en&answer=136861&topic=1221265&ctx=topic> and here: <http://support.google.com/websearch/bin/answer.py?hl=en&answer=2466433>

## Google Scholar

Google Scholar cuts out a lot of the 'noise' that you may experience when searching for academic information via other internet search engines. Google Scholar provides academic information from academic publishers, professional societies, online repositories, universities, etc.

- Google Scholar can be accessed at: <http://scholar.google.co.uk>
- To set your Google Scholar preferences, go to settings under the Cog (top right).
  - Under Bibliography manager, you can set your preferences, e.g., to RefWorks:
  - Under Library Links you can add Cranfield University. You will then be shown where full text is available via a Cranfield University subscription:

Your search terms will be looked for, by default, in the full-text of the document when searching. If you wish to improve the relevancy of your results, try:

- using 'intitle:search term' if you wish the first word of your search term to appear in the title of the article you are searching for;
- using 'allintitle:search term' if you wish all of your search terms to appear in the title of the article you are searching for

## Google Scholar Metrics

Available under the metric icon in the top right this facility allows you to view most popular scholarly publications ordered by h5-index and h5-median scores. Results can be sorted on the left hand side by subject category and further down into sub-categories. Further information on Scholar Metrics is available here: <http://scholar.google.co.uk/intl/en/scholar/metrics.html>

## Scholarly information

For the best scholarly information you should be using our subscription databases, but there are some great Internet resources which provide scholarly information. Consider using the following Internet search engines and repositories:

- Google Scholar – take a look at the [Google section](#) for useful search tips and details on how to find top ranked journals by subject area using Google Scholar Metrics.
- Search University repositories through Google – a repository contains an institution's academic output and is open access. You can search for these via Google. Start with leading research universities in your subject area. You can also search for repositories using OpenDOAR: <http://www.opendoar.org/>, ROAR: <http://roar.eprints.org/> and OATD <http://oatd.org/>.
- Digital collections – [JISC](#) has produced a good introduction to digital collections for education.

## Keeping ahead

New information is constantly being published, changed and updated; therefore it is important that you are accessing information that is current and you are aware of the latest developments in your field. Please check out the Barrington Digital Library's pages on current awareness for more information.

We have outlined a few tools below that will make keeping ahead of your areas of interest easy to achieve.

### RSS feeds

RSS feeds are probably the simplest way to stay updated with what is happening across your favourite websites and you can even save database searches as RSS feeds. Please check out the Barrington Digital Library's page on RSS Feeds

[http://barrington.cranfield.ac.uk/current\\_awareness/using-internet-tools-to-keep-up-to-date](http://barrington.cranfield.ac.uk/current_awareness/using-internet-tools-to-keep-up-to-date).

### Blogs

Check out our guidance on Blogs [http://barrington.cranfield.ac.uk/current\\_awareness/using-internet-tools-to-keep-up-to-date/?searchterm=blogs](http://barrington.cranfield.ac.uk/current_awareness/using-internet-tools-to-keep-up-to-date/?searchterm=blogs).

### Social networking and collaboration

Social networking is something that we are increasingly being pushed towards. The popularity of social networking sites such as Facebook and Twitter and the roles they played in updating the masses during the Arab Spring revolutions of 2011 highlight their importance and power. But how do we use them academically?

Traditional social networking online can take the form of email groups/discussion lists such as those hosted at <http://www.jiscmail.ac.uk>. Increasingly researchers are forming online communities together in order to share expertise, documents and thoughts with like-minded individuals such as at <http://www.mendeley.com> and <http://uk.linkedin.com/>

For the latest on 'Social Media Simplified' please check out the following guides on Mashable: <http://mashable.com/2012/06/12/social-media-beginners-guide/>

### "Social Magazine"

Social Magazines are the latest tools on the scene with the successful integration of tablets into our lives. They are a means of bringing together news on subjects of interest to you in one place mixing news alerts with social media with the visual appearance of a magazine. You can add in your feeds from Twitter, Facebook, LinkedIn, and Google+ among others to make them truly personal. The beauty of these is that the news summaries can be read offline – you'll only have to connect to the internet to get to the full text of an article. Flipboard is the leader in this new field of apps. Others to check out are Feedly, Doozly, Sobeas (and its iPad app Newsmix), and Alternion.

### Useful tools

Don't forget, there is a wealth of tools freely available on the Internet to help with your studies;

- You can watch lectures online via iTunesU and YouTube or find presentations at slideshare.
- Many university websites have institutional repositories where you can access academic research for free
- You can plan your work using mind mapping tools, Gantt chart software and meeting organisers
- Get your thoughts out there and collaborate with colleagues in a blog, create a wiki or share and comment on documents together

For ideas on where to start have a look at these sites:

[http://philbradley.typepad.com/i\\_want\\_to/](http://philbradley.typepad.com/i_want_to/)

<http://www.philb.com/iwantto.htm>

For those with tablets there is also a wealth of apps available. Read reviews carefully to decide which ones are best for you before investing money in the paid for ones.

## Images

Images can really enhance your work, so it can pay to develop skills in finding and using digital images. The majority of images are protected by copyright whether or not this is explicitly stated. Always reference where the image came from and ensure you have correctly followed any guidance from the supplying website for that particular image.

If using Google Image search, you can filter search results for royalty free images to save yourself getting into trouble for using anything that you are not entitled to. Enter a search term into the Google Images search box, navigate to the [Google Advanced Image Search](#) by clicking on the cog icon at the top right of the page you can then scroll down to "usage rights". This allows you to search for images that have a creative commons license, are in the public domain, or have a GNU Free Documentation license. If you do use this function, always double check the license on the website you are taken to just to be sure.

Sometimes people may strip out the copyright and metadata from images and reuse it without the copyright holders permission which can make it particularly hard to know if an image is royalty free or not. Tools such as [TinEye reverse image search](#) allow you to paste in image or page urls or upload images and will check where images have come from, how they are being used, if it has been modified and so could help you to check if an image has been used as a creative commons image elsewhere.

Further information on finding and using images is available in the help guide [using images in your work](#).

## Citing web sources

If you use information from the Internet in your research, you will need to cite it appropriately. For information about citing / referencing web sources, please see the [Referencing](#) page. The referencing guides provide advice on how to reference various web sources including websites, tweets, wikis, blogs and YouTube clips.

If you wish to find information that you can use, share or modify you can apply a "licence type" filter to a Google search. Go to the advanced search (located by clicking on the cog icon on the top right of the Google home page) and scroll down to the "usage rights" option. This will allow you to search for materials that have a creative commons license or have been labelled as in the public domain. If you do use this function, always double check the license on the website you are taken to just to be sure.

## Further reading

RBA advanced search. Available at: <http://www.rba.co.uk/as/>

Karen Blakeman's weblog. Available at: <http://www.rba.co.uk/wordpress/>

Phil Bradley's weblog. Available at: <http://www.philbradley.typepad.com/>

Information Literacy Tutorial. Available at: <http://barrington.cranfield.ac.uk/ilit>

Google Official Blog. Available at: <http://googleblog.blogspot.co.uk/>

Inside search. Available at: <http://www.google.com/insidesearch/>

Mashable. Available at: <http://mashable.com/>