Finding Quality Information on the Web

Ulysses, Alfred Lord Tennyson. 1833
Source: https://ontheechoinggreen.files.wordpress.com/2013/03/strive-seek-find.jpg

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Session overview

- Finding quality information on the Web
  - Planning a search
  - Overview of different search tools
  - Which information resource to use & where to find it
  - Recommended websites

- Evaluating the quality of a website
  - Is it trustworthy?
Preparing to search...

- **Using the Web**
  - Information can be more up to date than text books
  - Often a good starting point – for leads / ideas

- **Planning**
  - What type of information do I need?
  - Where will I find it?
  - What search tools can I use?
  - Can I trust the information I find?
    - How to evaluate it?
Which resource for....

- Background information for a topic
- Published research articles
- Clinical guideline for patient care
- UK Government health policy
- Patient information leaflet
- Current opinion
- Health stories in the news – unbiased
- High quality images
- UK Statistics
Which resource for....

- Background information for a topic – text book / website
- Published research articles:
  - Library website [http://library.sgul.ac.uk/](http://library.sgul.ac.uk/) > Hunter
  - Library site > Databases

- Clinical guideline for patient care [www.evidence.nhs.uk](http://www.evidence.nhs.uk)
- UK Government health policy – .gov.uk
- Patient information leaflet [www.evidence.nhs.uk](http://www.evidence.nhs.uk)

- Current opinion – blogs, Twitter, news sites
- Health stories in the news
  - [www.nhs.uk](http://www.nhs.uk) > Health News > Behind the headlines
  - [http://researchtheheadlines.org/](http://researchtheheadlines.org/) Royal Society of Scotland

- High quality images – Library site > Databases > Images
High quality web resources

- **Professional sites**
  - BIR – British Institute of Radiology
  - BMA / GMC – British Medical Assoc / General Medical Council
  - CSP – Chartered Society of Physiotherapy
  - RCCP – Registration Council for Clinical Physiologists
  - Other Royal Colleges – Surgeons, Midwives etc

- **Academic institutions**
  - Library websites eg Universities
  - Research centres / institutes
    - Search for Institutes eg in page title / limit domain to ac.uk or org.uk

- **Charities**
  - Cancer Research UK
  - British Heart Foundation
Define your topic or question:
- Focus as much as possible – eg
  - What muscle injury treatments are there for hamstring injuries?
- Generally best to enter just important terms eg
  - Hamstring
  - Muscle injury
  - Treatment
  - Also search on synonyms eg rehabilitation
hamstring AND “muscle injury” OR "muscle strain"

Interpreted as:

Hamstring AND “muscle injury” OR
Hamstring AND “muscle strain” OR

- OR takes precedence
hamstring AND “muscle injury” OR "muscle strain" AND treatment OR rehabilitation

More synonyms:
Muscle pull
Muscle tear
hamstring AND “muscle injury” OR "muscle strain" AND treatment OR rehabilitation

Interpreted as:

Hamstring AND “muscle injury” AND treatment OR
Hamstring AND “muscle strain” AND treatment OR
Hamstring AND “muscle injury” AND rehabilitation OR
Hamstring AND “muscle strain” AND rehabilitation

OR takes precedence
Searching for information – which tool?

- Google?
- Google Scholar?
- Wikipedia?

“You want a second opinion? Let’s try Yahoo!”

Source: The Times November 10 2006
Great for:
- Broad searches
- Giving you a starting point

Not so good for:
- Specialised searches – limited options
- Will retrieve lots of irrelevant pages

Tips for Google
- [http://www.google.co.uk/](http://www.google.co.uk/)
Example searches

Using site operator to limit by domain or website:

hamstring AND “muscle injury” OR "muscle strain" AND treatment OR rehabilitation site:org.uk

hamstring AND “muscle injury” OR "muscle strain" AND treatment site:org.uk OR site:nhs.uk

ebola site:who.int
Statistics site:bhf.org.uk
Tips for Google

- Limit by domain – use with site operator
  - ac.uk – UK academic / edu – US academic
  - edu.au – Australia academic
  - nhs.uk
  - org or org.uk – not-for-profit
  - gov.uk
  - Wikipedia – list of Internet top-level domains

Search in the title of a web page eg:
- allintitle:research muscle injury
- allintitle:research ebola
- Intitle:ebola
Tips for Google

- Search tools feature:

  ![Google Search with Allintitle:research muscle rehabilitation](image)
More general search engines


- Supports **site:** and **intitle:** operators
  - Hamstring rehabilitation site:org.uk
  - Intitle: ebola research
  - Intitle: ebola research site:ac.uk

- Search Tools: Summary and Comparison of Commands
  - [http://www.rba.co.uk/search/compare.shtml](http://www.rba.co.uk/search/compare.shtml)
General pointers – using search engines

- Check any Advanced options to refine search eg
  - Limit by site or domain (ac.uk, nhs.uk, .org, .edu etc)
  - Limit search to title of web page or URL (ie website address)

- Exact phrase searching
  - Usually need to use quotes “infection control”

- Usually terms are ANDed together
  - “infection control” MRSA

- May need to cater for synonyms/different spellings
  - “Smoking cessation” OR “Quit Smoking”
Google Scholar

- Includes peer-reviewed material
  - May give links to free full text
  - Cited by links – useful but probably not totally accurate
  - Tends to rank oldest papers at top of results – as being most cited

- Grey literature – unpublished material, conference proceedings, reports
  - …but incomplete; not explicit for sources it searches
  - … also includes non peer-reviewed materials

Tips for Google Scholar

- [http://scholar.google.com/](http://scholar.google.com/)
- Scholar Settings > Library links – set to SGUL for offsite links to full text
Wikipedia

- A starting point …
- Could potentially provide an overview
- References may provide useful links
- Results should be used with caution
  - Anyone can edit articles
  - Impartiality not guaranteed
  - How can you verify the accuracy of the information?

Wiki Project Medicine

WikiProjects Directory
Researching with Wikipedia

- From article page check following:
  - Quality rating (on Talk page) – featured articles:
  - Portal (Check foot of article / Talk page)
    - May not be allocated to a Portal
  - Categorisation (foot of article)
    - What links here (left hand navigation)
    - View history page
    - References / See also
How to evaluate a Wikipedia article

- **Tutorial on YouTube** (7 mins)
  - Print version here:
    - Slideshare [http://www.slideshare.net/phoebeayers/how-to-evaluate-a-wikipedia-article](http://www.slideshare.net/phoebeayers/how-to-evaluate-a-wikipedia-article)

- **More resources for evaluating articles**
Image search

- Library website > Databases > Select Specialty – Images & Multimedia
  - Recommended sites – images in public domain
  - eg Wellcome Images Collection

- Harvard University guide
  - [http://guides.library.harvard.edu/finding_images](http://guides.library.harvard.edu/finding_images)
    - Includes advice on copyright issues
    - Recommended resources for images

- Always check usage rights for any image and acknowledge the source

Source: [http://www.sxc.hu/](http://www.sxc.hu/)
More tools ...

- **Wolfram | Alpha**
  - Provides answers rather than search results
  - “Computational Knowledge engine”
  - Wide subject coverage including Medicine

- **Wayback machine & Internet Archive**
  - Find a previous version of web pages or website if it has changed address and no re-direct
  - Internet archive > Medical Heritage Library
Evaluating websites ....

Look for clues:

- **About Us / Contact Us**
  - Do they seem legitimate?

- **Is the site or prominent names on the site mentioned on other authoritative sites?**

- **Format of the web address**
  - `.ac`, `.edu` academic or education
    - eg sgul.ac.uk / harvard.edu
  - `.co`, `.com` commercial
  - `.gov` government
  - `.org` non-governmental, non-profit making organisations

- **Information up to date?**
- **Any bias / Conflict of interest?**
- **Are claims supported by evidence ie cited references?**
Health on the Net

http://www.hon.ch/

Swiss Foundation
  ◦ Health on the Net (Swiss Foundation) – "promote the effective and reliable use of the new technologies for telemedicine in healthcare around the world."

HON Code of Conduct (HONcode) for medical and health websites
  ◦ Certification for trusted websites
  ◦ http://www.hon.ch/HONcode/Pro/Conduct.html
  ◦ An example – MedIndia
  ◦ http://www.medindia.net/
Medical / Healthcare Blogs

For opinion & discussion, some examples …

- BMJ group blogs [http://blogs.bmj.com/](http://blogs.bmj.com/)
- Students 4 Best Evidence
  - [http://www.students4bestevidence.net/](http://www.students4bestevidence.net/)
- Anne Bruton (Professor of Respiratory Rehabilitation. UK)
  - [http://anniebruton.wordpress.com/](http://anniebruton.wordpress.com/)
- Dr Ben Goldacre, writer, Campaigner for Alltrials
  [http://www.alltrials.net/](http://www.alltrials.net/)

Check blogrolls – for other related blogs eg

Twitter search
- [https://twitter.com/search-home](https://twitter.com/search-home)
- search tweets using hashtag eg
  - #ukmeded
  - #FOAM #FOAMed

Healthcare Hashtag Project (US)
- [http://www.symplur.com/healthcare-hashtags](http://www.symplur.com/healthcare-hashtags)

Twitter – getting started
- [https://support.twitter.com/groups/50-welcome-to-twitter#topic_204](https://support.twitter.com/groups/50-welcome-to-twitter#topic_204)
Summary

- A Searcher’s toolkit …
  - General search engines
  - Specialist search engines
    - academic
  - Professional / Academic web sites
  - Wikis – authoritative ones
  - Blogs & Twitter – for current opinion

- Evaluate what you find
  - Is it trustworthy?
  - Up to date?
  - Any bias?
  - Are claims supported by evidence ie cited references?