

Why are peer reviewed articles so important?



Peer review in 3 minutes!

Finding information for your Final Year Projects

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EEE UG4 Nov 2015



Aims to today:

Show you other search tools beyond Google Scholar to find research papers

Show how you can save time with reference management software (Refworks)/BibTeX

Avoiding plagiarising

Just a taster!

Literature searching

Builds up your knowledge

- ❖ Background
- ❖ Ideas/problem solving
- ❖ Avoids duplication!

One of the
FIRST things
you do!

Puts your work into context

- ❖ Published evidence that what you are doing is creating “new knowledge”
- ❖ Comparison with other research

Ongoing throughout your project

The literature review/survey

Used in:

- Undergrad and masters dissertations

- PhDs

- Research proposals

- Writing of journal articles/conference papers etc

Why are peer reviewed articles so important?



Peer review in 3 minutes!

Questions to ask when reading a paper

Currency / credibility (of authors) / relevance
(summary)

What is the new knowledge and how does it fit into the rest of the literature?

❖ similar studies – agreement/disagreement (data)?

Methods used – are they scientifically valid, anything innovative?

Evidence to support arguments/statements

Finding research papers

Finding research papers – Search Tools

Search Engines e.g. Google, Google Scholar

“Full text” databases

Publishers websites e.g. IEEE Xplore, ScienceDirect, Wiley

Bibliographic databases (with links to our journal subscriptions)

e.g. Engineering Village (Inspec/Compendex), Scopus, Web of Science Core Collection

Search tools for research papers – see subject page

Subject page:

Electrical and Electronic Engineering

Your librarian



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[@AngelaCLib](#)

Angela can help with:

- Searching and finding information
- How to use databases and online resources
- Evaluating the information you find
- Referencing and reference management software
- Using the Library and our services
- Open access

Help and support

Angela is normally available in the department library Tues and Thurs 13.00 - 14.30 (times vary occasionally – actual times will be advertised on the door of the library)

- [Book a library workshop](#)
- [Book a one to one with Angela](#)
- [Suggest a journal or database](#)
- [Suggest a book for purchase](#)
- [Open access help](#)

Search tools

E-books

E-textbooks for 1st years

- [IEEE Xplore](#)
- [Web of Science Core Collection](#)

Search Engines:

**Google Scholar>60,000
hits>look at top n items**



**More methodical>Search tools
with more complex
capabilities>smaller more
focussed results**

Passwords and working off-site

Connecting to e-journals, e-books and databases

Find a username and password



If you are using a computer connected to the Imperial College London network you will be able to access most e-journals, e-books and databases directly. For full access you must be a member of Imperial and have a current computer account (username and password).

Occasionally a special username and password is required, as indicated in the **View It** tab on Library Search - find the password on our [Password list](#)



Journal

American Ceramic Society bulletin

American Ceramic Society.

Easton, Pa. : American Ce

Central Library: Vol. 12 (19

Science Museum Library

Accessing our electronic resources



On-site – “seamless” access to most resources – no login required



Off-site (1) – use VPN for “seamless” access

Effect of internal friction in the dynamic behavior of aerodynamic foil bearings

Iordanoff, I ; Said, B ; Mezianne, A ; Berthier, Y ; Iordanoff, I (correspondence author)

Tribology International, May 2008, Vol.41(5), pp.387-395 [Peer Reviewed Journal]

Online access

[View It](#) [Details](#) [Times Cited](#)


Open source in a new window

Full text available at: [Elsevier ScienceDirect Journals Complete](#) [Show license](#)
Available from 1975 volume: 8 issue: 1

Off-site (2) – via Library webpages –
simple prompt to log in with College
username and password

CAMBRIDGE

JOURNALS

 Basket

 Log in

[Cambridge Journals](#) > [Journal of Fluid Mechanics](#) > [Back Volumes](#)

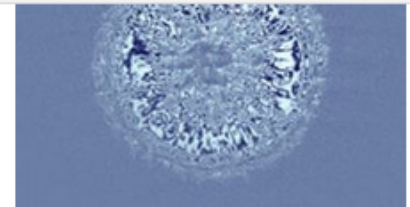
Journal of Fluid Mechanics

[Subscribe to Journal](#)

[Submit an Article](#)

[Sign-Up for Alerts](#)

ISSN: 0022-1120 | EISSN: 1469-7645



User Log-in

Institutional Log-in

[Register for an Account](#)

Search term

Author

Year

Volume

☐ Search CJO

Search

[Advanced Search](#)

Off-site (3) – via search engines - log in using Institutional (or Shibboleth) login (College username/password)

Example search

Control of multiterminal HVDC
grids

A solid green triangle is located in the bottom right corner of the slide, pointing towards the top right.

Example search

Control of multiterminal HVDC
grids

A green triangle is located in the bottom right corner of the slide.

SFX/Direct from publisher

Links in database records to full text content:

SFX/View it buttons or links:

Goes via our website and indicates our subscription for that journal

Helpful if things have gone wrong!

View at publishers link

We may not have direct from publisher

Can't tell whether we should have access to full text

The search process

Select search tool(s)

Develop search strategy

- ❖ Identify key concepts
- ❖ Think of alternatives (synonyms, broader/narrower terms, word forms, UK/US spellings)
- ❖ Combine terms (OR for alternatives, AND to combine key concepts)

Carry out search

Look at search results and revise search if necessary

Select sources – save reference details, pdf etc

Search techniques (1)

- Go for more “advanced” option
 - Multiple search boxes, with dropdown menus
- Stemming, US/UK spellings
 - E.g. control, controlled, controlling...
 - Optimization, optimisation
 - On **SOME** databases
- Truncation/wild cards
 - Comput* finds all words beginning comput
- Phrase searching e.g. “smart grids”

Search techniques (2)

- Restricting terms to being present in a particular field
e.g. title, index terms
- Refine panel (usually on left hand side)
- Use of controlled terms (e.g Inspec Thesaurus)
 - No need to think of alternative terms
 - Narrows search
 - Items likely to be more relevant (eliminates much irrelevant material)
 - A fine balance

Citation searching

Citation information in a search engine or database allows you to discover more recent papers which have cited the current paper

Why?

- ❖ Difficulty identifying documents
- ❖ You have key paper
- ❖ You just like to work that way!

Citation information in: Google Scholar, Engineering Village, Scopus, IEEE Xplore, Web of Science Core Collection (separate citation search function)



See guide

Citation searching example

Berl A, Gelenbe E, Di Girolamo M, Giuliani G, De Meer H, Dang MQ, et al. Energy-Efficient Cloud Computing.
Computer journal 2010;53(7) 1045-1051.

Getting hold of documents:

Links within databases (journal articles)/journal websites



Library search – **CHECK!**



Google! (increasing amount of open access materials)



[Document Delivery](#) service (no limit but please make informed decision)

- ❖ Secure electronic delivery for articles (but can only download once with time limitations, print once). Print off straightaway after you open it

Other types of information:

Official/government – search engines e.g. Google

Grey literature - search engines e.g. Google

Standards – we have full text of

- ❖ British Standards (inc some ISO, IEC)
- ❖ ASTM
- ❖ IEEE

Theses

- ❖ Imperial theses – Spiral or Library Search
- ❖ UK theses - **Ethos** (including downloadable materials)
<http://ethos.bl.uk/>
- ❖ International theses - [ProQuest Dissertations & Theses A&I](#)

Managing references

Why “Manage” Your References?

Think beyond current project:

Your own personal reference library for your career

Save time/effort:

- Automatic capture of data , particularly bulk capture
- Data capture only once, re-use multiple times
- Organise – by assignment, subject, usefulness etc
- Output automatically in variety of formats

Management of documents

Refworks

Provided by College for taught students (free)

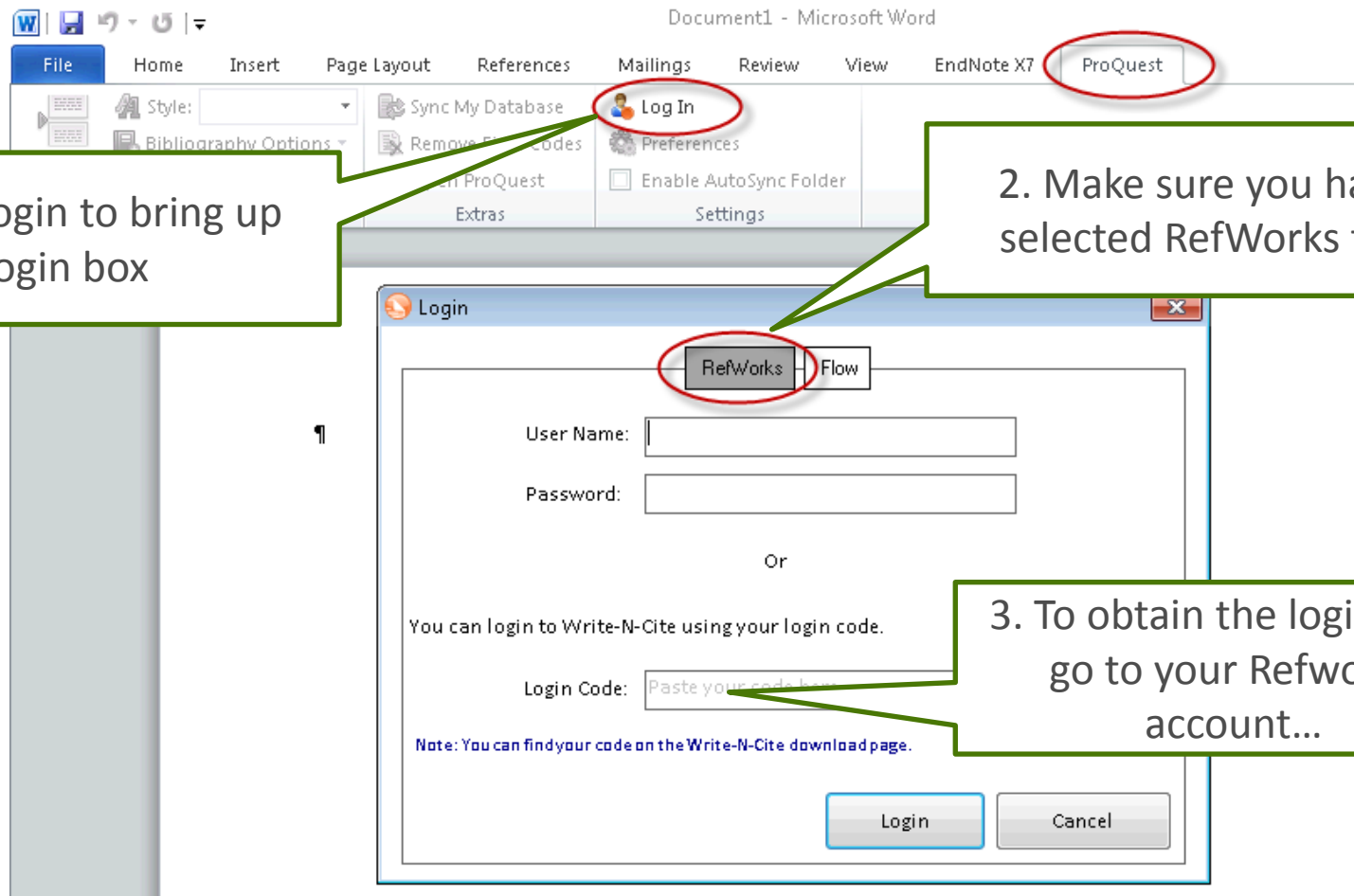
Web based accessible via devices with internet

References can be exported to other reference management software e.g. Mendeley or output formats (e.g. BibTeX)

Free alumni account

<https://www.imperial.ac.uk/admin-services/library/learning-support/reference-management/refworks/>

To login to WriteNCite 4:



To obtain login code for WriteNCite 4:

From your Refworks account, go to drop-down menu
Tools>Write-N-Cite

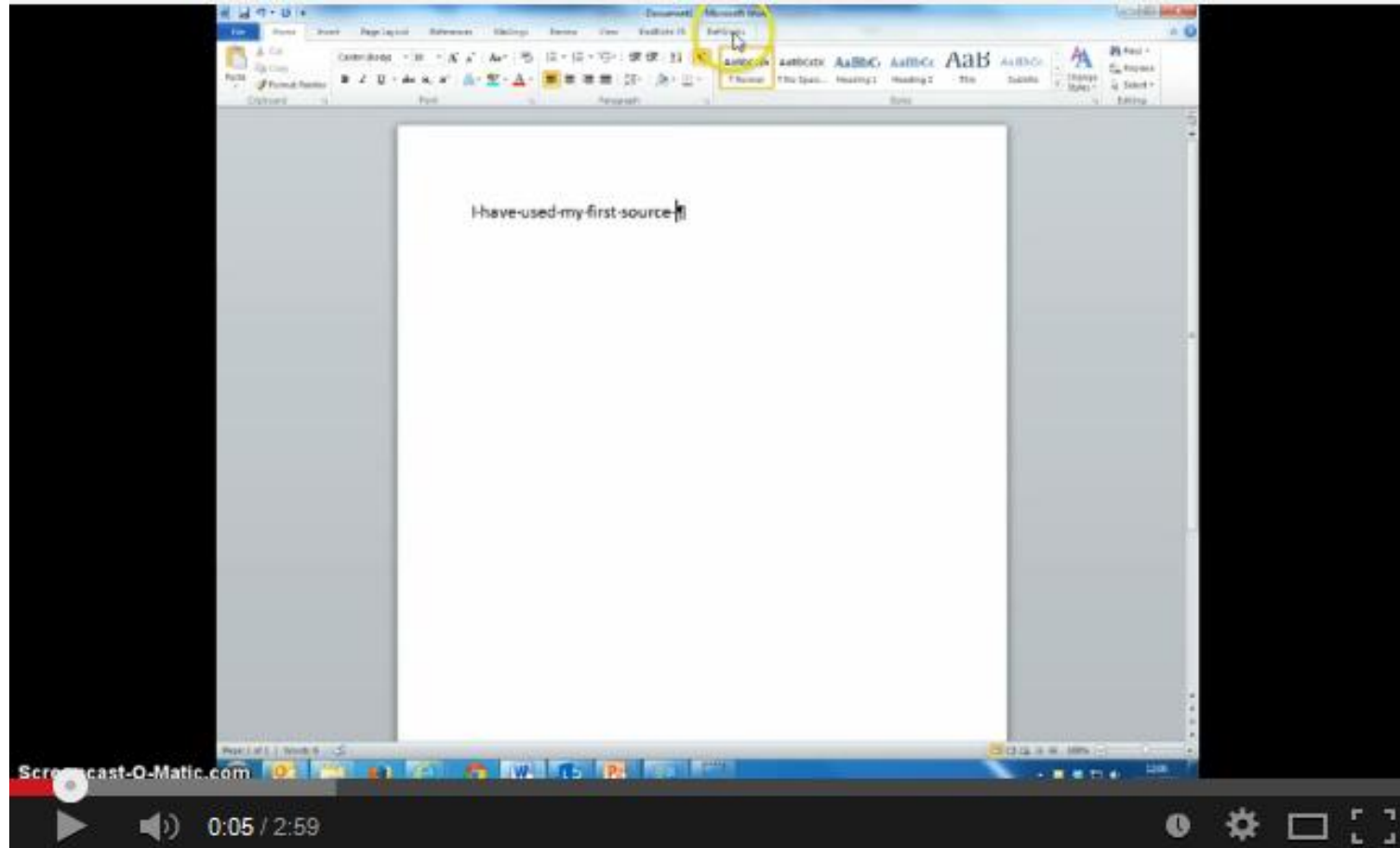
Copy and paste the login code displayed

How do I log into Write-N-Cite 4 using my institution
credentials?

If you use your institution's credentials (Athens, Shibboleth or Proxy) to
log in to RefWorks, you **MUST** copy and use this code on the Write-N-
Cite 4 login screen

450b7544-527347516d5857684d147d1c211119546228286e20287
d223132170360173f2c12021a311620242e24113c61025b0b3654
283f072400333e100b1f070e35

Generating reference lists (Write-N-Cite)



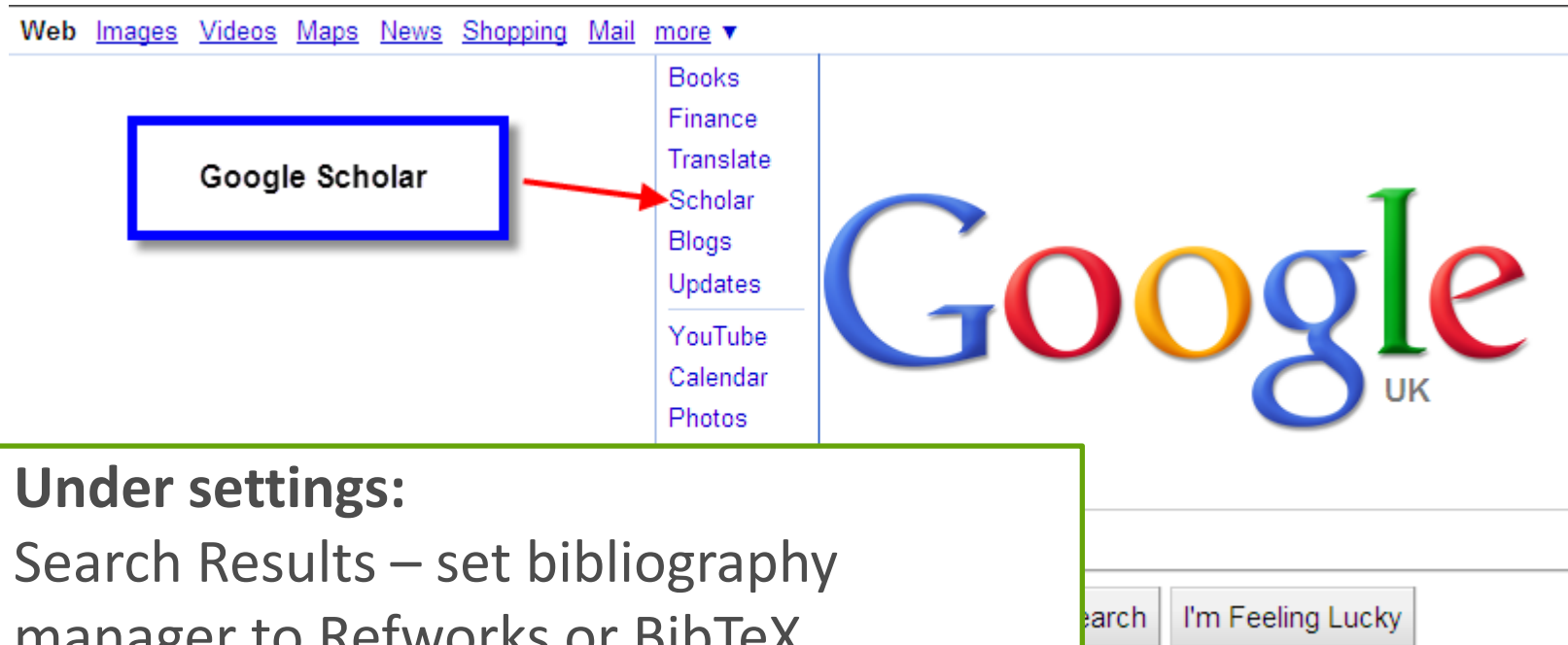
Please note:

Note: the login code constantly changes so you will need to visit the Refworks site each time you need to log in

Once logged in on *your own* PC etc, you will stay logged in until you log out

You will need to log in each time you use WriteNCite 4 on student PCs

Google Scholar



Under settings:

Search Results – set bibliography manager to Refworks or BibTeX

Library Links – search for Imperial and select as an option

NOTE: data may be variable so should check!

Reference management with LaTeX

LaTeX and BibTeX

Reference details stored in BibTeX file(s) (tagged field format)

“Write and cite” plus reference list generation based on citation

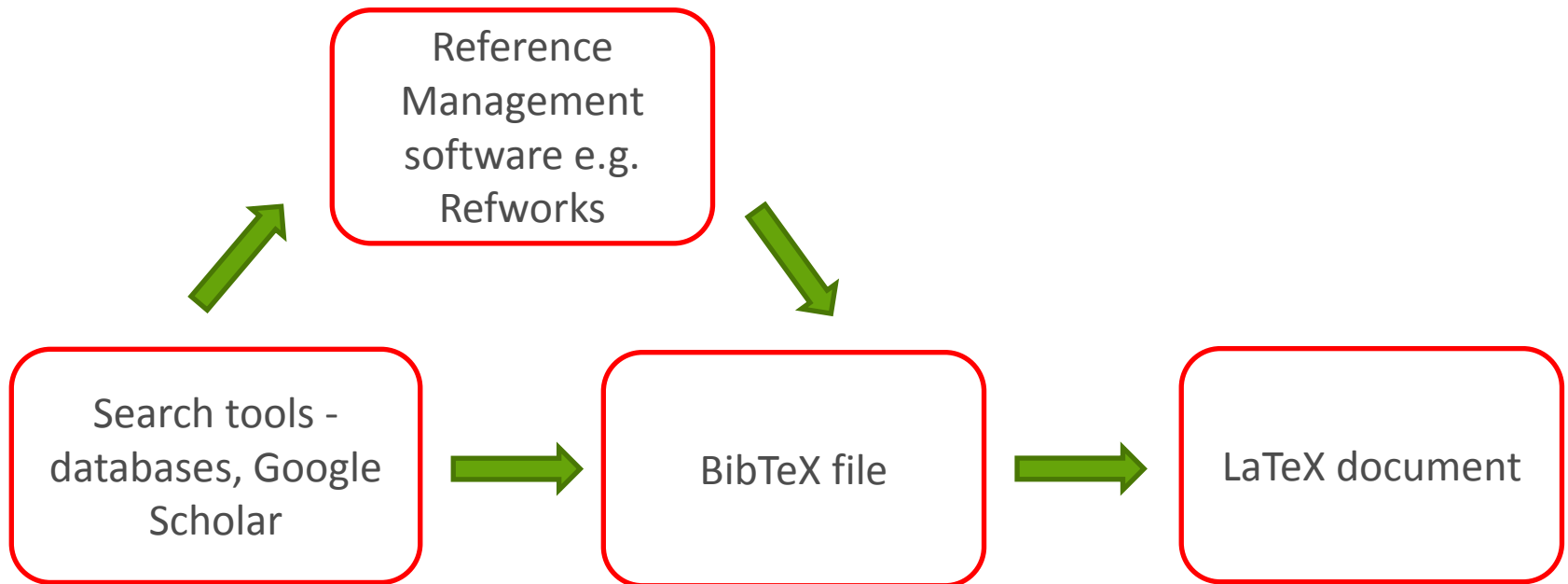
Creation of BibTeX files:

- Bulk and/or automatic capture of reference data from:

- Databases, Google Scholar

- Reference management software e.g. Refworks

Reference Management and LaTeX – data flow



Capturing data from multiple search tools on multiple occasions will result in inconsistencies/issues with the data

Will require some tidying!

Using Refworks with LaTeX

An extra step, BUT:

All references stored in one place from multiple sources, for multiple assignments (avoids multiple BibTeX files)

Once in Refworks, reference can be re-used and re-organised

De-duplication of records

Global edit function to tidy up files for BibTeX

Not tied to just using LaTeX

The BibTeX file

Tagged field format

Each record has unique key

Must be in same folder as the LaTeX document

Issues:

- ❖ LaTeX special characters: \, \$, %, _, ^, &, #, ~, {, } -
- ❖ Unneeded information: e.g. notes field

Useful website:

http://en.wikibooks.org/wiki/LaTeX/Bibliography_Management#Bibliography_styles

Using Refworks with BibTeX - tidying up the data

Do in Refworks if possible

Special characters in LaTeX: \, \$, %, _, ^, &, #, ~, {, }

Unnecessary fields – e.g Notes, Pub Date Free Form Fields – delete (use Global Delete function)

The URL for an electronic source needs to be in the **Links** field of the Refworks record to end up in the url= field in the BibTeX file

See **Using Refworks with LaTeX** and **Using BibTeX with LaTeX** guides for more information

@article{RefWorks:1249,
author={F. Birgersson and S. Finnveden and G. Roberts},
year={2004},
title={Modelling turbulence-induced vibration of pipes},
journal={Journal of Sound and Vibration},
volume={278},
number={4-5},
pages={749-72},

abstract={The vibration of pipes is studied here using the Arnold-Warburton theory for thin shells and a simple model described numerically with the spectral finite element method (SFEM), which uses the exact solutions of the equations of motion. The model functions was extended to include particular solutions, which model a spatially distributed excitation. An efficient nu

**Unique key:
RefWorks:1249**

Creating citations/generating bibliography

In LaTeX document (examples):

In text:

```
\cite{unique key}
```

Just before end of document command:

```
\bibliography{references} where your references are stored  
in the file references.bib
```

```
\bibliographystyle{unsrt} where unsrt.bst is the name of the  
style file
```

LaTeX document (example):

```
\begin{document}
\title{My First \LaTeX{} Document}
\author{Angela}
\maketitle

\textbf{How we moved away from paper and embraced Moodle: creating an e-learning task for new students}

\noindent{Library Welcome sessions for health students at King's College typically last one hour, with a paper-based practical 'discovery' task in the middle designed to encourage the students to navigate around the system and learn how to locate books and journals\cite{RefWorks:127}. This year\cite{RefWorks:915}, we decided to convert this paper quiz to an interactive e-learning task which was uploaded to our Moodle virtual learning environment\cite{RefWorks:738}.}

\textbf{Enhancing students' experience while keeping it simple}

\noindent{A simple exercise developed mainly for international students to make sure they leave the library for the first time with a positive experience on which they can build their confidence for the rest of their time in the institution\cite{RefWorks:776}. }

\bibliographystyle{unsrt}
\bibliography{references}

\end{document}
```

Natbib

`\usepackage[options]{natbib}`

Options include round/square brackets, numerical/author citation

`\citep` to produce citations: e.g. (Surname(s), year)

`\citet` to produce citations: e.g. Surname(s) (year)

Suggested formats:

Vancouver (numerical style): Use commands

`\usepackage[numbers]{natbib}` and `\bibliographystyle{unsrtnat}`

Harvard (author) style: Use commands `\usepackage{natbib}`,

`\bibliographystyle{agsm}` and `\citep{unique key}` **See guide**

Natbib – suggested formats

Natbib allows more flexibility in the ways
you can cite in a document (particularly for Harvard)

Vancouver (numerical style):

In preamble: `\usepackage[numbers]{natbib}`

In document: `\bibliographystyle{unsrtnat}`

Harvard (author) style:

In preamble: `\usepackage{natbib}`

In document: `\bibliographystyle{agsm}` and `\citep{unique key}`

See guide

Reference management using LaTeX

Lunchtime session:

Thursday 26th November 13.10 – 13.50

Central Library Training Room 2

Places still available

How not to plagiarise

An academic's viewpoint:

“Plagiarism is representing the **work** of other people as your own”

....“and nothing else matters.”

Chernyshenko, S. (2014) Email to Angela Goldfinch, 17th November

The assumption is: the work you present is your own **UNLESS** you indicate otherwise

THEREFORE:

**If you use someone else's work you
MUST acknowledge it...**

EXCEPT

- where the information is “common knowledge” (including in your subject area)
- The author has indicated you can use information without acknowledgement

Acknowledging your sources

- **It must be clear what information has come from which source**
- The acknowledgement needs to indicate:
 - Whose work it is
 - Where it came from i.e. the source
- When using direct quotes – this needs to be made clear

Acknowledging sources – Citing and Referencing



First the citing (acknowledgement) bit...

- In your text, when you refer to someone else's material you insert a citation ("in-text citation") – i.e. you acknowledge: this information has come from that source
- The citation is just a notation indicating that source
- Most notations based on:
 - Author surnames (e.g. Harvard)
 - Numbers (e.g. Vancouver)

...and then the referencing bit!

- The full bibliographic details of the source goes in your reference list (usually at the end of the report)

How you use other people's information

Paraphrase (re-write in your own words) **PREFERRED!**

- Shows you have understood the material
- You can adjust style/academic level for your audience
- Develops your writing style

Quote

- Not common in science/engineering (e.g. use to illustrate a point)
- Diagrams, figures, tables, equations are quotes

Always acknowledge sources!

Secondary referencing (1)

You have read Smith's paper (2010); but the information you wish to use is from an earlier source (Chen, 2000) that Smith has used (cited)

- It is best to get hold of the original Chen paper
- Using information from the Smith paper will be Smith's interpretation of Chen's information

If this isn't possible:

- You must make clear the source of the information is Chen, and that you have read the Smith paper

Secondary referencing (2)

E.g. In your text:

According to Chen as cited by Smith (7) there is substantial evidence to support....

- The Smith reference goes in the reference list at the end of your report (a list of sources you have read and cited)
- The Chen reference does **NOT** go in the reference list as you have not read the actual document

Webpages

Can be difficult to determine webpage title, authors and publication date!

- Date of access – websites change/disappear
- Title – use your common sense
- Date – sometimes very unclear/missing
 - “Updated” statement, copyright symbol, content of text itself
 - No date - use n.d.
- Author(s) – will often be no personal authors
 - Use organisation
 - No obvious author/organisation - use Anon
 - **SHOULD YOU BE USING IT?**

Note taking – good practice can avoid plagiarism

- Record of the full bibliographic details of your sources

In your notes:

- Make it clear what information has come from which source
- Make it clear where you are using a direct quote
- Make it clear where you are rewriting in your own words (paraphrasing)
- Make it clear what are your own thoughts (you don't have to acknowledge these!)

Note Taking – some tips

- Don't try to re-write information sentence by sentence
 - Makes is harder to deviate from the original
- Read a sizeable chunk a few times
- Re-write the content in your own words from memory
- Compare with the original to make sure you haven't missed out important information

Acknowledging sources – citing and referencing



First the citing (acknowledgement) bit...

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- The citation is just a notation indicating that source
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Referencing styles

- Don't "do it yourself"
- Use a referencing style for complete and consistent referencing
 - **Department requires you to use ?**
- Library provides support for Harvard and Vancouver styles (**styles not standards!**)
 - Referencing guide (printed booklet, pdf)
 - Webpages – more information, more source types

<https://www.imperial.ac.uk/library/learning-support/reference-management/>

<https://www.imperial.ac.uk/library/learning-support/reference-management/harvard-style/>

<https://www.imperial.ac.uk/library/learning-support/reference-management/vancouver-style/>

Citing with Vancouver (numerical style):

- The first source you use is numbered 1, the second source you use is numbered 2, etc
 - Re-using earlier source – doesn't get another number
- If you edit and change the order in which you introduce your source, you will need to re-number sources and rearrange the reference list

Examples:

A recent study (3) investigated the effectiveness of using Google Scholar in finding medical research.

Henderson (3) investigated the effectiveness....

And the reference list.....

- **8. EXAMPLE OF A REFERENCE LIST**

(1) Arrami M, Garner H. A tale of two citations. *Nature*. 2008; 451(7177):397–399.

(2) Watkins PJ. *ABC of Diabetes*. 5th ed. London: Blackwell Publishing; 2003.

(3) Simons NE, Menzies B, Matthews M. *A Short Course in Soil and Rock Slope Engineering*. London: Thomas Telford Publishing; 2001.

(4) Goldacre B. Dore – the media’s miracle cure for dyslexia. *Bad Science*. Weblog.

Available from:

<http://www.badscience.net/2008/05/dore-the-medias-miracle-cure-for-dyslexia/#more-705>
[Accessed 19th June 2015].

(5) Goldacre B. Trivial Disputes. *Bad Science*. Weblog. Available from:

<http://www.badscience.net/2008/02/trivial-disputes-2/> [Accessed 19th June 2015].

- List of the sources you have cited (and nothing else!)
- The same source can be cited several times
- Editing your work may result in having to re-order and re-number sources

Citing with Harvard (author style):

- Citation includes: author surname(s) and publication year e.g. (Chen, 2013)
 - Up to 3 authors – include all surnames
 - 4 or more authors – first author use “et al” e.g. (Chen et al, 2013)
 - Two papers by the same author(s) in the same year – (Chen, 2013a) and (Chen, 2013b)

Examples:

A recent study (Jones, 2014) investigated the effectiveness of using Google Scholar in finding medical research.

Henderson (2014) investigated the effectiveness....

Authors in Harvard:

The in-text citation:

1 author: (Goldfinch, 2015)

2 authors: (Goldfinch & Huang, 2015)

3 authors: (Goldfinch, Huang and Jacob, 2015)

4 or more authors: (Goldfinch et al, 2015)

In the reference list:

All authors must be included:

Holding, M. Y., Saulino, M. F., Overton, E. A., Kornbluth, I. D. & Freedman, M. K. (2008) Interventions in Chronic Pain Management. 1. Update on Important Definitions in Pain Management. Archives of Physical Medicine and Rehabilitation, 89 (3, Supplement 1), S38–S40.

Acknowledging sources – introducing large amounts of information

To avoid multiple citations for one source:

Example:

Experiments were carried out using the test method described by Robbins (1). Samples were first taken.....

The opening sentence sets things up and makes clear the following test description is taken from Robbins. You can now describe the test method over several sentences/paragraphs

Some example references - Vancouver

Example reference - book

Author/Editor, title, edition, place of publication, publisher,
publication year

Simons NE, Menzies B, Matthews M. *A Short Course in Soil and Rock Slope Engineering*. London: Thomas Telford Publishing; 2001. Available from:
<http://www.myilibrary.com?ID=93941> [Accessed 18th June 2015].

Example reference – journal article

Author(s), title of article, journal title, publication year, volume and issue number, page numbers

Viswanath K, Tafti DK. Effect of stroke deviation on forward flapping flight. *AIAA Journal*. 2013; 51(1): 145-160.

Available from:

<http://arc.aiaa.org/iclibezp1.cc.ic.ac.uk/doi/pdf/10.2514/1.J051675> [Accessed 20th September 2013].

Electronic versions:

- Add Digital Object Identifier (DOI) or URL and access date
- You don't need to add the DOI/URL etc unless your tutor specifically asks you to

Example reference - webpage

Author (organisation), title, URL, date accessed

European Space Agency. *Rosetta: rendezvous with a comet*. Available from: <http://rosetta.esa.int> [Accessed 3rd July 2015].

- Author (or organisation) and title can sometimes be difficult to determine!
- No obvious author? Should you be using it?

Some example references - Harvard

Example reference - book

Author/Editor, publication year, title, edition, place of publication, publisher

- Simons, N. E., Menzies, B. & Matthews, M. (2001) *A Short Course in Soil and Rock Slope Engineering*. London, Thomas Telford Publishing. Available from: <http://www.myilibrary.com?ID=93941> [Accessed 18th July 2015].
- In-text citation: (Simons, Menzies & Matthews, 2001)

Example reference – journal article

Author(s), title of article, journal title, publication year, volume and issue number, page numbers

- Viswanath, K. & Tafti, D. K. (2013) Effect of stroke deviation on forward flapping flight. *AIAA Journal*. 51 (1), 145-160. Available from:
<http://arc.aiaa.org/iclibezp1.cc.ic.ac.uk/doi/pdf/10.2514/1.J051675> [Accessed 20th September 2015].

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- Author (or organisation), title and date can sometimes be difficult to determine!
- No obvious author? Should you be using it?

Diagrams, tables, equations etc (Vancouver)

These are quotes

Extra required (by many referencing styles):

- Enclose text in single quotation marks
- Include page number (if available)

Acknowledge both in e.g. captions AND in text where you discuss:

Caption: Figure 1. 'Geological map of the easternmost region of São Nicolau' (9: p.532)

In the text: Figure 1 (9: p.532) illustrates the prevalence of.....

Diagrams, tables, equations etc (Harvard)

These are quotes

Extra required (by many referencing styles):

- Enclose text in single quotation marks
- Include page number (if available)

Acknowledge both in e.g. captions AND in text where you discuss:

Caption: Figure 1. 'Geological map of the easternmost region of São Nicolau' (Wilson et al, 2014: p.532)

In the text: Figure 1 (Wilson et al, 2014: p.532) illustrates the prevalence of.....

“Plagiarism detection” software

Tools based on text matching against databases of sources/internet



Can't identify all types of plagiarism

Imperial College uses **Turnitin**

- Every Department is different

WARNING

Do not use “free” plagiarism detection sites – you may be signing away rights to your work (to then be sold on essay writing sites)

Turnitin

Will be used for the projects

Compares your work with a databank which includes stuff from the internet, journal articles, other student's work.....

Produces an **ORIGINALITY REPORT**

- ❖ Indicates any of your text which appear to match that in the databank (**potential** for plagiarism)
- ❖ You will be able to see this report before your deadline to ensure you haven't plagiarised (you can edit and resubmit)

More information about this later – guides will be made available

How to avoid plagiarism:

The assumption is that it is your own work unless you indicate otherwise (i.e. acknowledgement)



It must be clear what information has come from which source

It must be clear where you have used a direct quote (quote marks, page number also required)

Help and Support:

Me:

Angela Goldfinch

a.goldfinch@imperial.ac.uk



1 to 1s available

Help finding references

Help locating actual documents

Advice on citing and referencing