Information Literacy: Search Techniques

for Undergraduate Economics Research

2018

Cheng Eng Aun • Lyndia Chen
Plan for Today

- Importance of information literacy
- Recommended databases
- Using FindMore
- Using Google + Google Scholar, access articles
- Find your seniors’ theses
- Overview of thesis sections
- Using review articles to scope research area/ complete Literature Review
- Importance of search strategy

The bulk of time will be spent on the last 2 sections.
Importance of information literacy

• Manoeuvre the information age
  • Find, evaluate, use information effectively
  • Understanding the information ecosystem- growing organism

• For today’s class
  • Know where to find economic data in relation to your research/assignment needs
  • Evaluate online information (good vs bad articles and data)
### Choice of databases

<table>
<thead>
<tr>
<th>Database</th>
<th>Type</th>
<th>Strength/Unique Selling Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>FindMore@NUSL</td>
<td>Index</td>
<td>Comprehensive coverage and easy to use. Good for first search attempt.</td>
</tr>
<tr>
<td>Google Scholar</td>
<td>Index</td>
<td>Intuitive interface. Can configure linking to Library e-resources.</td>
</tr>
<tr>
<td>Scopus</td>
<td>Index</td>
<td>Comprehensive coverage for peer-reviewed work. Citation analysis.</td>
</tr>
<tr>
<td>Web of Science</td>
<td>Index</td>
<td>Comprehensive coverage for peer-reviewed work. Citation analysis.</td>
</tr>
<tr>
<td>EconLit</td>
<td>Index</td>
<td>Highly focused on Economics works. Content selected and indexed by specialists.</td>
</tr>
<tr>
<td>SSRN</td>
<td>Full Text</td>
<td>Open access social sciences database. Many articles directly accessible.</td>
</tr>
</tbody>
</table>

See more databases in [Economics subject guide](#).
FindMore@NUSL
When to use FindMore@NUSL

• Search what is available in the library
  • Books, journals
  • Online articles, e-books, papers

• Browse extensive databases subscribed
  • By database type
  • By subject type
  • Popularity
Google + Google Scholar
Access articles
Google search

- The Web is a good place to explore topics – but know what you are reading!
- CRAAP Test

C - Currency
R - Relevance
A - Authority
A - Accuracy
P - Purpose
## Advanced Google search

<table>
<thead>
<tr>
<th>Operator</th>
<th>Purpose</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>site:</code></td>
<td>Limit search results to a specific website</td>
<td><code>site:singstat.gov.sg</code></td>
</tr>
<tr>
<td><code>intitle:</code></td>
<td>Terms to show up in specific fields</td>
<td><code>intext:gdp</code></td>
</tr>
<tr>
<td><code>intext:</code></td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>inurl:</code></td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>filetype:</code></td>
<td>Limit search results to specific file types, e.g. PDF or Excel workbooks</td>
<td><code>filetype:xls</code></td>
</tr>
<tr>
<td><code>+</code></td>
<td>Specify terms (e.g. numbers) that must/must not show in the search results</td>
<td><code>+2015</code></td>
</tr>
<tr>
<td><code>-</code></td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>info:</code></td>
<td>Information about the page: Cached pages, similar pages, webpages that link to it</td>
<td><code>info:singstat.gov.sg</code></td>
</tr>
<tr>
<td><code>related:</code></td>
<td>Find related websites</td>
<td><code>related:mas.gov.sg</code></td>
</tr>
<tr>
<td><code>link:</code></td>
<td>Find websites that link to the site you are searching</td>
<td><code>link:imf.org</code></td>
</tr>
</tbody>
</table>
Configure Google Scholar for NUS resources

http://libguides.nus.edu.sg/googlescholarlinks

(1) Click on More > Settings
(2) Click on Library Links
(3) Search for “National University of Singapore”
(4) Tick the NUS box and Save
Access articles

1. Configure Google Scholar
2. Proxy Bookmarklet
3. Unpaywall
Find your seniors’ theses
Find your seniors’ theses

• Go to FindMore@NUSL, key in **HD30 Singapore**

• Other sources for dissertations: Proquest Dissertations and Theses (under **Databases**); **ScholarBank** (NUS Masters and PhD theses)
Find your seniors’ theses

• Theses supervised by your supervisor

From previous step...

(1) Click Advanced Search

(2) Search your supervisor’s name

(3) Results
What’s in a thesis?
General parts of a thesis

• Title, author, date
• Abstract – summary of the paper
• Keywords – search tags for the paper
• Introduction – includes motivation for the paper’s topic, thesis statement, research objectives, etc.
• Literature review – overview of the paper’s topic’s research milestones/status (not a summary of papers)
• Methodology – how and where the data is collected, analysed and definitions used
• Findings – analysis are presented
• Discussion – key analysis points and insights
• Conclusion
• Bibliography/references – may include appendices, tables, diagrams, etc.
Find review articles
What is review article

• Article which reviews literature on a topic
• Author already does the homework
• Useful for your literature review!
What is literature review?

• **NOT** an annotated bibliography of papers you read
• **NOT** a repetition of what has been said in the papers you read

• **Is** a synthesis of ideas
• **Is** the place to **ask questions**
• **Is** the place **to sell your research** – “significance”, “value”
Key points of literature review – example

• Introduction
  “The objective of this paper is to survey the literature insofar as it relates to this issue of debt capacity.”
  “It is not intended that the survey will be exhaustive. Rather, it will attempt to outline some of the principal strands in the literature…”
  “The first task, therefore, is to identify what we mean by the term “debt capacity.”…”
  “The first attempts... used the Harrod-Domar model. ... Models such as these have been widely used to cast light on the debt servicing capacity (e.g. Avramoric (1964), King (1968), ...).”
  “The present situation of limited international risk diversification would appear to be unsatisfactory.”
  “It is hoped that future research will lead to progress by breaking down the barriers to improved international financial linkages.”

• Definition of terms and scope

• Key points of literature

• Issues or difficulties

• Research gap and questions*


* This style applies to survey paper but not litt. review section of your paper. This is usually done in the Limitations section in a dissertation.
Use the right search statement

Search for review articles by
• Searching databases using **jargon** in the field as keywords
• Specifying that it should be review articles
  • Hint: Review articles usually have titles such as...

<table>
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<th>The Economics of Movies: A Literature Survey</th>
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<td>Direct and Indirect Effects of FDI in Emerging European Markets: A Survey and Meta-analysis</td>
</tr>
<tr>
<td>A Literature Review on the Application of Evolutionary Computing to Credit Scoring</td>
</tr>
<tr>
<td>A Systematic Review of Key Issues in Public Health</td>
</tr>
<tr>
<td>The Updating of Input-Output Matrices: A Systematic Survey</td>
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Use the right search statement

Select the right keywords!

https://h5p.org/node/107450
Use the right search statement

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<td></td>
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<tr>
<td>Direct and Indirect Effects of FDI in Emerging European Markets: A</td>
<td>Survey and Meta-analysis</td>
</tr>
<tr>
<td>Survey Protocol and Income Effects in the Contingent Valuation of</td>
<td></td>
</tr>
<tr>
<td>Public Goods: A Meta-analysis</td>
<td></td>
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<td>A Literature Review on the Application of Evolutionary Computing to</td>
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What are the keywords?

- Literature survey
- Literature review
- Systematic survey
- Systematic review
- Meta-analysis
Put them together with Boolean Operators

A AND B

A OR B
How to join the keywords using Boolean operators?

https://h5p.org/node/107452

• Literature survey
• Literature review
• Systematic survey
• Systematic review
• Meta-analysis
Put them together with Boolean Operators

- Literature
  - Review
  - Survey

- Systematic
  - Review
  - Survey

- Meta-analysis
Put them together with Boolean Operators

- Literature
- Review
- Systematic
- Survey

Meta-analysis
Put them together with Boolean Operators

[((Literature OR Systematic) AND (Review OR Survey)) OR Meta-analysis]
Keyword searching with secret sauce

• *Secret sauce – power version* to search for review articles

<table>
<thead>
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<th>Keywords (jargon) of your topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>AND</td>
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</table>

(((Literature OR Systematic OR Bibliographic OR Meta) AND (Survey OR Review OR Analysis)) OR Meta-analytical OR “a review” OR “a survey” OR “a mini review” OR “a brief review” OR bibliography)

• Revising *Boolean operators* – YouTube videos
Keyword searching with secret sauce

• **Example**: Debt and developing countries

Debt AND Developing

AND

(((Literature OR Systematic OR Bibliographic OR Meta) AND (Survey OR Review OR Analysis)) OR Meta-analytical OR “a review” OR “a survey” OR “a mini review” OR “a brief review” OR bibliography)
Keyword searching with secret sauce

• **Example**: Debt and developing countries

FindMore@NUSL Advanced Search

1. Go to Advanced Search
2. Paste the secret sauce and search by title
3. Results

• The *secret sauce* can be used in other databases under Advanced Search
How to get a list of keywords

• Look for synonyms and related terms
  • Article titles
  • Article abstract
  • Concepts

• Check out reference sources
  • Encyclopedic articles
  • Review articles
  • Thesauri

• Look up the author’s information
  • Articles published
  • CV/biodata page – esp. sections like Research Interest
Why take so much “trouble” to search?

• Saves time overall
• Make sure your searches are thorough – your supervisors may ask you to show proof of your searches
• Systematic vs “hit or miss” method
• Can you reproduce the searches when asked?
What if there is no review article on your topic?

Create one!

Find one very relevant article

Look for relevant articles in forward and backward citations

Wash, rinse and repeat (citation chaining)
Pearl growing technique
Pearl growing is a simple idea

- Find a very relevant article
- Look for relevant papers cited within the article
- Find those articles and repeat the process
Example: Debt of developing countries

1. Wikipedia
   - Global Issues
     - Luckiest nut
     - Letter fr Zambia
     - Strategy paper
     - MDG/SDG
       - OneWorld
       - Corporate Watch
       - Publications
       - Key issues
       - Discussion note
       - IMF support
Technique – Pearl growing in practice

- **Web of Science**: Search for the article “Debt capacity and developing country borrowing”

This pane will show you the articles cited and citing articles
Technique – Pearl growing in practice

Citation Network

33 Times Cited
81 Cited References
View Related Records

Citing Articles a.k.a. Forward Citations

Articles Cited a.k.a. Backward Citations
(Known as Cited References under Web of Science)

Related Records a.k.a. Sideways Citations
What is that?

All Times Cited Counts
33 in All Databases
33 in Web of Science Core Collection
0 in BIOSIS Citation Index
0 in Chinese Science Citation Database
0 in Data Citation Index
0 in SciELO Citation Index

Most Recent Citation
Huh, Hyeon-Seung. OPTIMAL FOREIGN BORROWING REVISITED. JAPANESE ECONOMIC REVIEW, SEP 2010.
View All
Technique – Pearl growing in practice

- **Related article**: Articles sharing all or many of the references

- Example: You are taking core modules for Economics, and noticed that someone is doing the same. Are chances good that he will major in Economics as well?
Technique – Pearl growing in practice

Pearl growing in other databases

Citing Articles “Forward”

Articles Cited “Backward”

Related Records “Sideways”

Note: Not all features are available across databases.
Managing your reference lists

Semester 1, AY 2018/2019

Friday 21 Sept 2018, 11-1pm
Using Mendeley

Friday 21 Sept 2018, 2-4pm
Using Endnote

Science Library Training Room

Important

*Bring your own laptop that is set up to connect to NUS wi-fi

*Sign up for a free account at www.mendeley.com before the session

For more info on using the software or contact points:
http://libguides.nus.edu.sg/sb.php?subject_id=32292
All The Best!

Cheng Eng Aun
chengengaun@nus.edu.sg

Lyndia Chen
lyndiachen@nus.edu.sg
Please complete the survey

https://tinyurl.com/estfeedback

Drop us a mail if you have questions!
Cheng Eng Aun
chengengaun@nus.edu.sg

Lyndia Chen
lyndiachen@nus.edu.sg