Citation searching
Agenda

• Citation indexes and citation searching
What is citation analysis?

Citation analysis - a way of measuring the relative importance or impact of:

• An author
• An article
• A publication

Measuring is done by counting the number of times that the above has been cited by others.
Pearl growing

• The process of using one information item to find more information.

• Start with a good document or author – the "Pearl"

“Citation pearl growing is the act of using one relevant source, or citation, to find more relevant sources on a topic”

http://en.wikipedia.org/wiki/Pearl_growing
Move through time…

Citation pearl growing  - Work forward and backwards in time…

Picture: https://images.webofknowledge.com/images/help/TCT/h_citation_map.html
Reasons for performing a citation search

• Find the original work on which an idea or research is based
• Find reactions to a research work. Follow up further developments in the research field
• Find authors working in a similar research field
• Map trends in the research field
• Find the impact of one author’s work on others’ work
• Not dependent on controlled vocabulary/key words

Source: Rumsey, How to find information: A guide for researchers, 2008
How to and who uses citation search?

• Who is citing my articles? How many times have I been cited?

• How do I know if this article is important?

• Which journal should I publish in?

• What are the best journals in my field?
Citation index

Definition of citation index:

"A citation index is a kind of bibliographic database, an index of citations between publications, allowing the user to easily establish which later documents cite which earlier documents".

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<th>Scopus</th>
<th>Web of Science</th>
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<td>• Elsevier</td>
<td>• Clarivate Analytics</td>
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<td>• Top level subject fields: life sciences,</td>
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<td>Rank) and SNIP (Source Normalized Impact</td>
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<td>• H-index &amp; Journal Citation</td>
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<td>Reports (JCR) - annual publication. Integrated with WoS, WoS-Core Collections.</td>
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Journal metrics

• **The journal impact factor (JIF)** of an academic journal is a measure reflecting the average number of citations to recent articles published in the journal. It is frequently used as a proxy for the relative importance of a journal within its field, with journals with higher impact factors deemed to be more important than those with lower ones.

• **SJR – SCImago Journal Rank**
  The SJR indicator is a free journal metric, based on an algorithm similar to PageRank. Used in the database "Scopus".

• **SNIP – Source Normalized Impact Per Paper**
  Created by Henk Moed, University of Leiden. Measures contextual citations impact by weighting citations based on the total number of citations in a subject field. Used in the database "Scopus".

• **Eigenfactor score**
  Created by Jevin West and Carl Bergstrom at the University of Washington. Eigenfactor scores are calculated by http://eigenfactor.org. The Eigenfactor score is intended to measure the importance of a journal to the scientific community, by considering the origin of the incoming citations, and is thought to reflect how frequently an average researcher would access content from that journal.

• **CiteScore (Scopus)**
  CiteScore calculates the average number of citations received in a calendar year by all items published in that journal in the preceding three years.
What about Google scholar?

- Broader in coverage but also includes publications which aren’t strictly scientific
- Less reliable citation data
- International and multi-lingual coverage
Difference citation databases

• Google Scholar has more Non-English **language** publications

• Scopus and GS cover journals in fields that span **multiple disciplines**.

• WoS are known for their “**High-influence**” publications

• GS known to cover a **lot of non-reviewed content**. If you are looking for **non-journal coverage**, GS more unique types of materials (PDF files, Word docs, technical reports, theses and dissertations, etc.). WoS and Scopus mainly cover journal articles.

• GS more **book coverage** as it covers Google Books content and other freely-accessible online publications.

• Authors with **common names** are more easy to distinguish with Scopus and WoS