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Literature Review from Search to Publication

Part 2: Finding proper articles

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www.researcherid.com/rid/C-2414-2009
http://scholar.google.com/citations

21st February 2017

All of my presentations are available online at:
https://figshare.com/authors/Nader_Ale_Ebrahim/100797
Link to this presentation: https://doi.org/10.6084/m9.figshare.4468841.v1 (Old version)

LITERATURE REVIEW FROM SEARCH TO PUBLICATION

Part 2: Finding proper articles

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http://scholar.google.com/citations

Read more: Ale Ebrahim, N. (2013). Introduction to the Research Tools mind map. *Research World*, *10*, Article A10.4. Retrieved from https://ssrn.com/abstract=2280007

Abstract

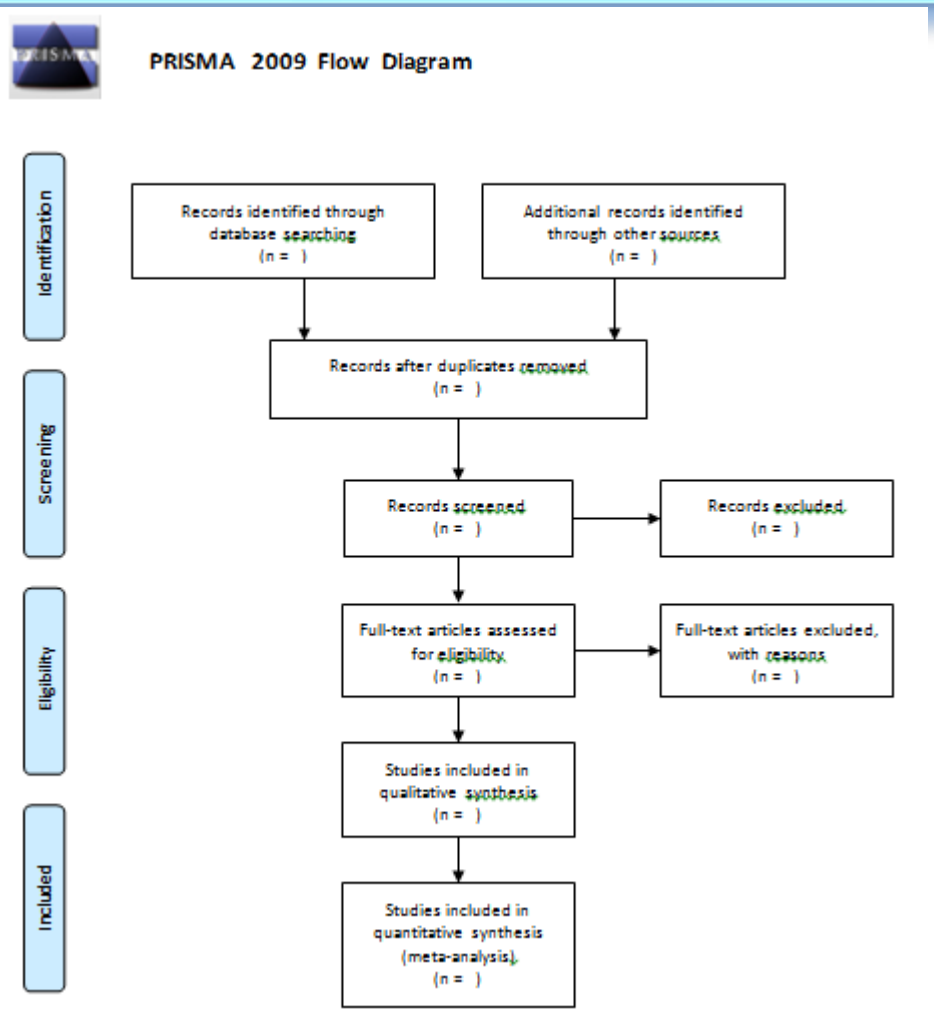
Abstract: "Research Tools" can be defined as vehicles that broadly facilitate research and related activities. "Research Tools" enable researchers to collect, organize, analyze, visualize and publicized research outputs. Dr. Nader has collected over 700 tools that enable students to follow the correct path in research and to ultimately produce high-quality research outputs with more accuracy and efficiency. It is assembled as an interactive Web-based mind map, titled "Research Tools", which is updated periodically. "Research Tools" consists of a hierarchical set of nodes. It has four main nodes: (1) Searching the literature, (2) Writing a paper, (3) Targeting suitable journals, and (4) Enhancing visibility and impact of the research. This workshop continues the previous one and some other tools from the part 1 (Searching the literature) will be described. The e-skills learned from the workshop are useful across various research disciplines and research institutions.

Keywords: Literature Review, Improve citation, Research impact, Open access, h-index, Research Visibility, Bibliometrics, Systematic literature review

Outline

No.	Topic
Day 2:	
12	Evaluate a paper quality
13	H-index
14	Publish or Perish
15	Evaluate a journal quality
16	The Institute for Scientific Information (ISI)
17	Impact Factor-Journal Ranking
18	Keeping up-to-date (Alert system)
19	How to Read a Paper
20	Mind mapping tools

Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)



From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). *P*referred *R*eporting *I*tems for *S*ystematic Reviews and *M*eta-*A*nalyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097

For more information, visit www.prisma-statement.org.

Critically Analyzing Information Sources

1- Initial Appraisal:

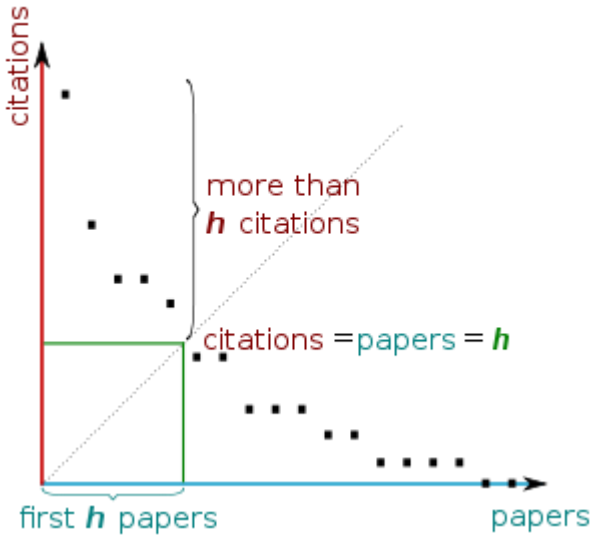
- Author
- Date of Publication
- Edition or Revision
- Publisher
- Title of Journal (Distinguishing Scholarly Journals from other Periodicals)

2- Content Analysis:

- Intended Audience
- Objective Reasoning
- Coverage
- Writing Style
- Evaluative Reviews

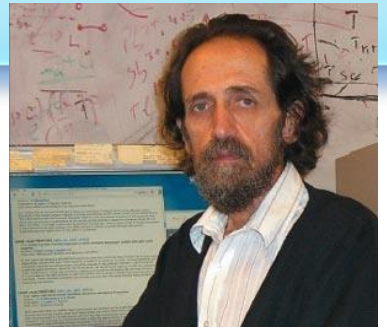
h-index (Jorge E. Hirsch)

- *A scientist has index h if h of [his/her] N_p papers have at least h citations each, and the other (N_p − h) papers have at most h citations each.*

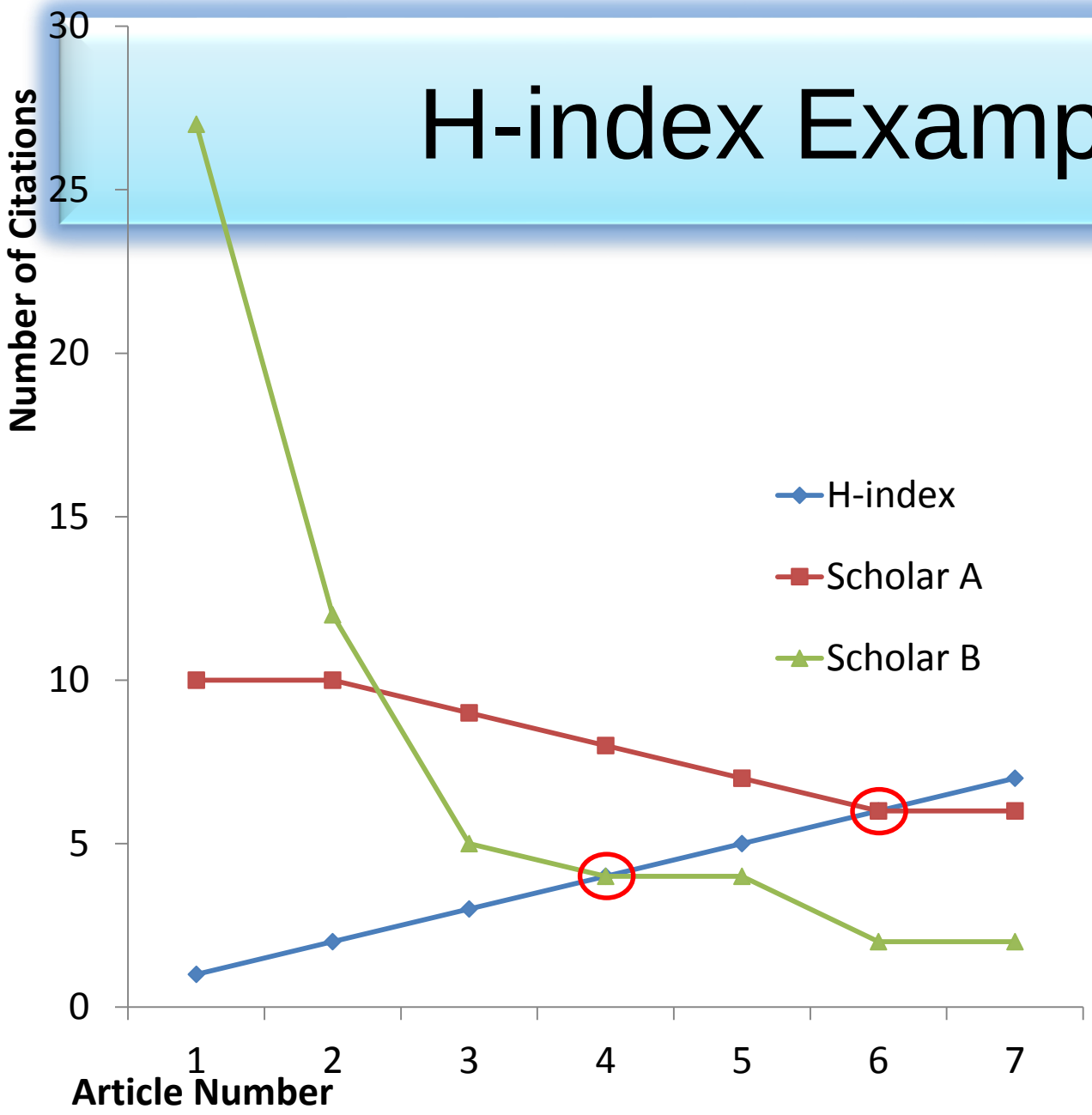


H-index from a plot of decreasing citations for numbered papers

H-index Example



Jorge E. Hirsch



Scholar A	Scholar B
10	27
10	12
9	5
8	4
7	4
6	2
6	2
56 citations	56 citations
h-index=6	h-index=4

Source: http://www.slideshare.net/librarian68/overview-of-citation-metrics

A scientist has index h if h of his/her Np papers have at least h citations each, and the other (Np-h) papers have no more than h citations each.

As an example, a researcher with an H-index of 15 has (of their total number of publications) 15 papers which have been cited at least 15 times each.

Researcher A			Researcher B	
Paper rank	Citations		Paper rank	Citations
1	10		1	1348
2	8		2	159
3	6		3	50
4	5		4	4
5	4		5	4
6	0		6	3

Neither researcher can have an H-index of more than 6.

Source: http://guides.is.uwa.edu.au/content.php?pid=372347&sid=3050052

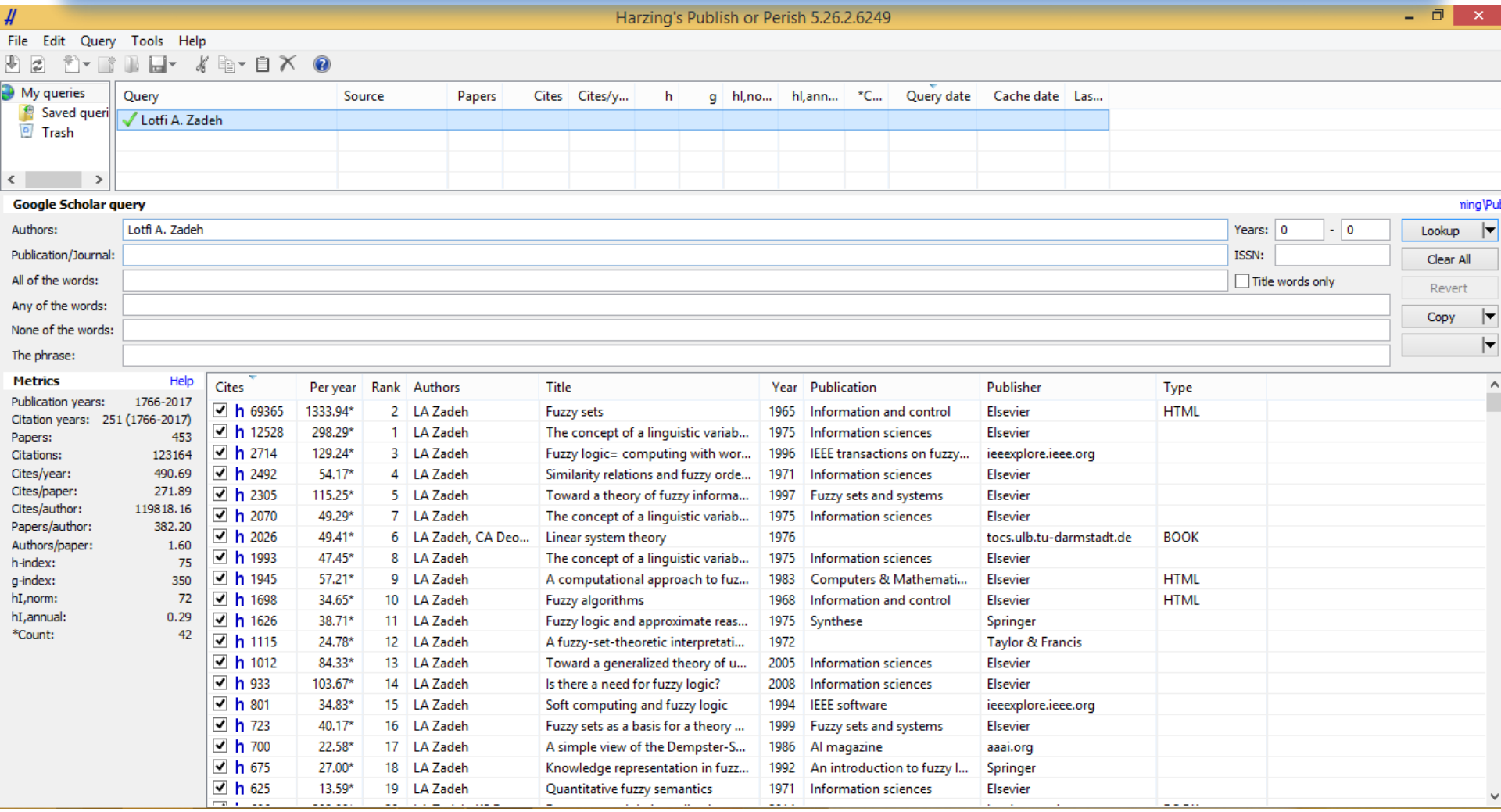
Publish or Perish

Publish or Perish is a free program that retrieves citations from Google Scholar and allows users to calculate:

- Total number of papers
- Total number of citations
- Average number of citations per paper
- Average number of citations per author
- Average number of papers per author
- Average number of citations per year
- Hirsch's h-index and related parameters
- The contemporary h-index
- The age-weighted citation rate
- Two variations of individual h-indices
- An analysis of the number of authors per paper

Source: http://guides.library.vu.edu.au/content.php?pid=251876&sid=2079929

Publish or Perish



Publish or Perish

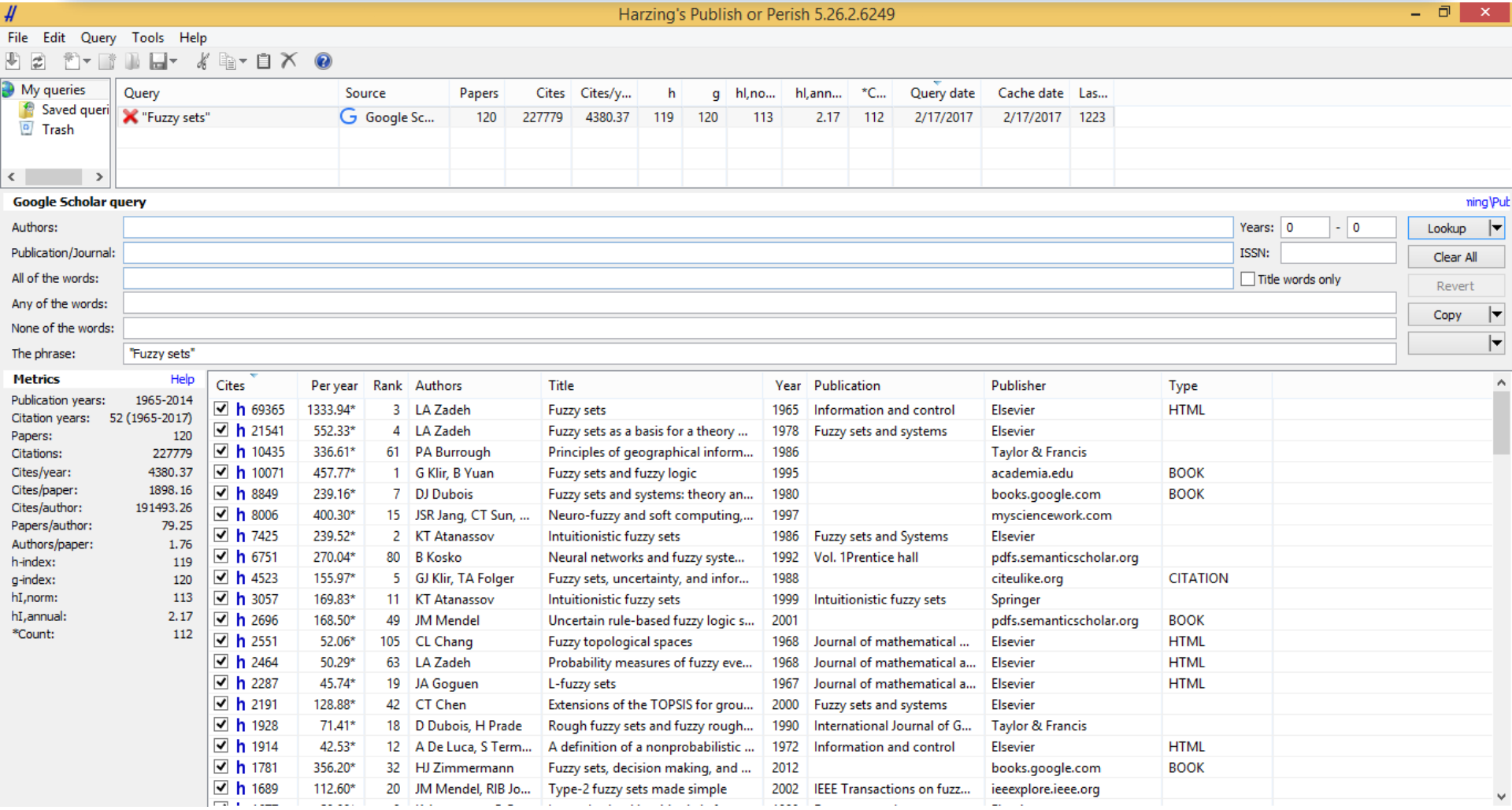
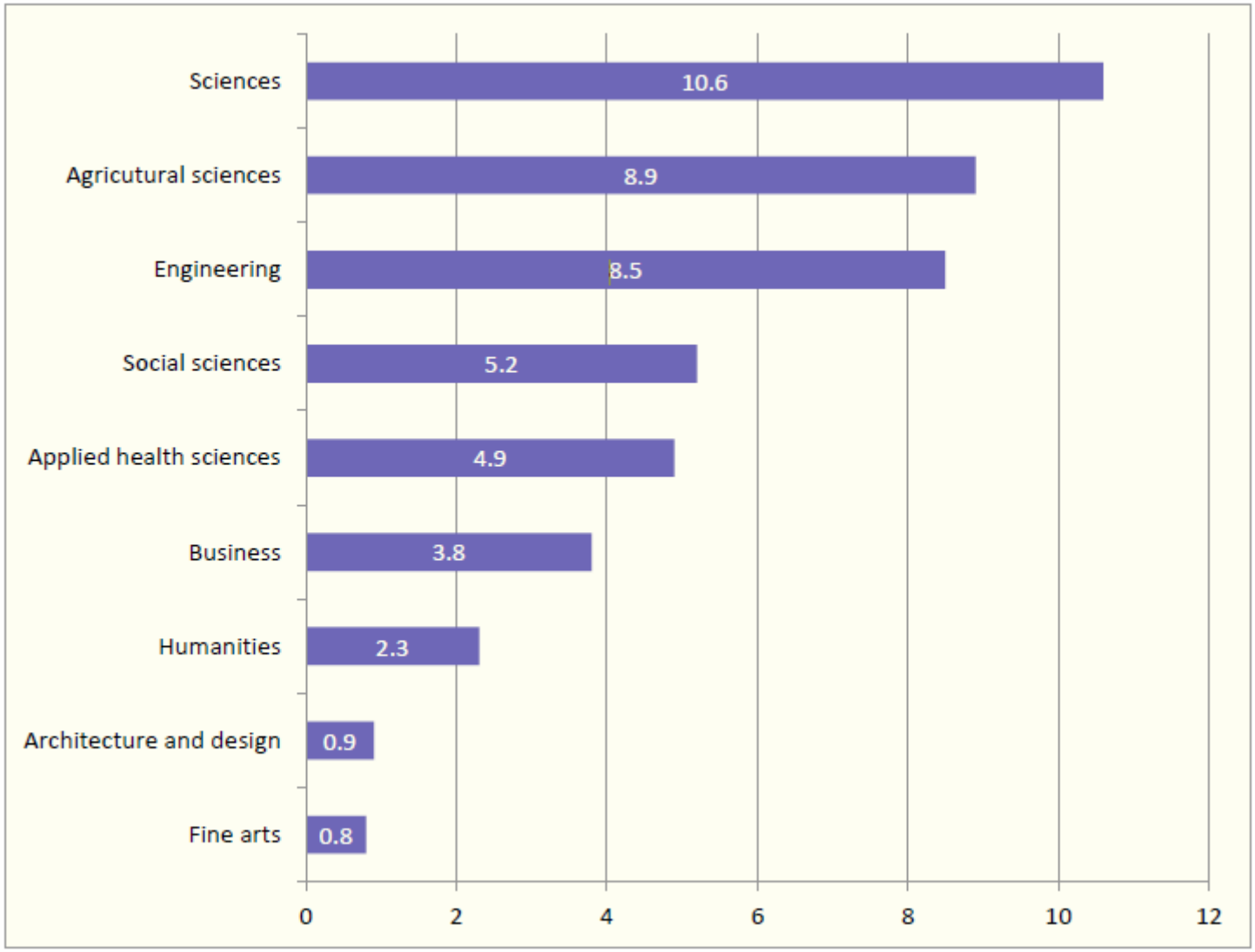


Figure 1: Mean H-index Scores by Field of Study



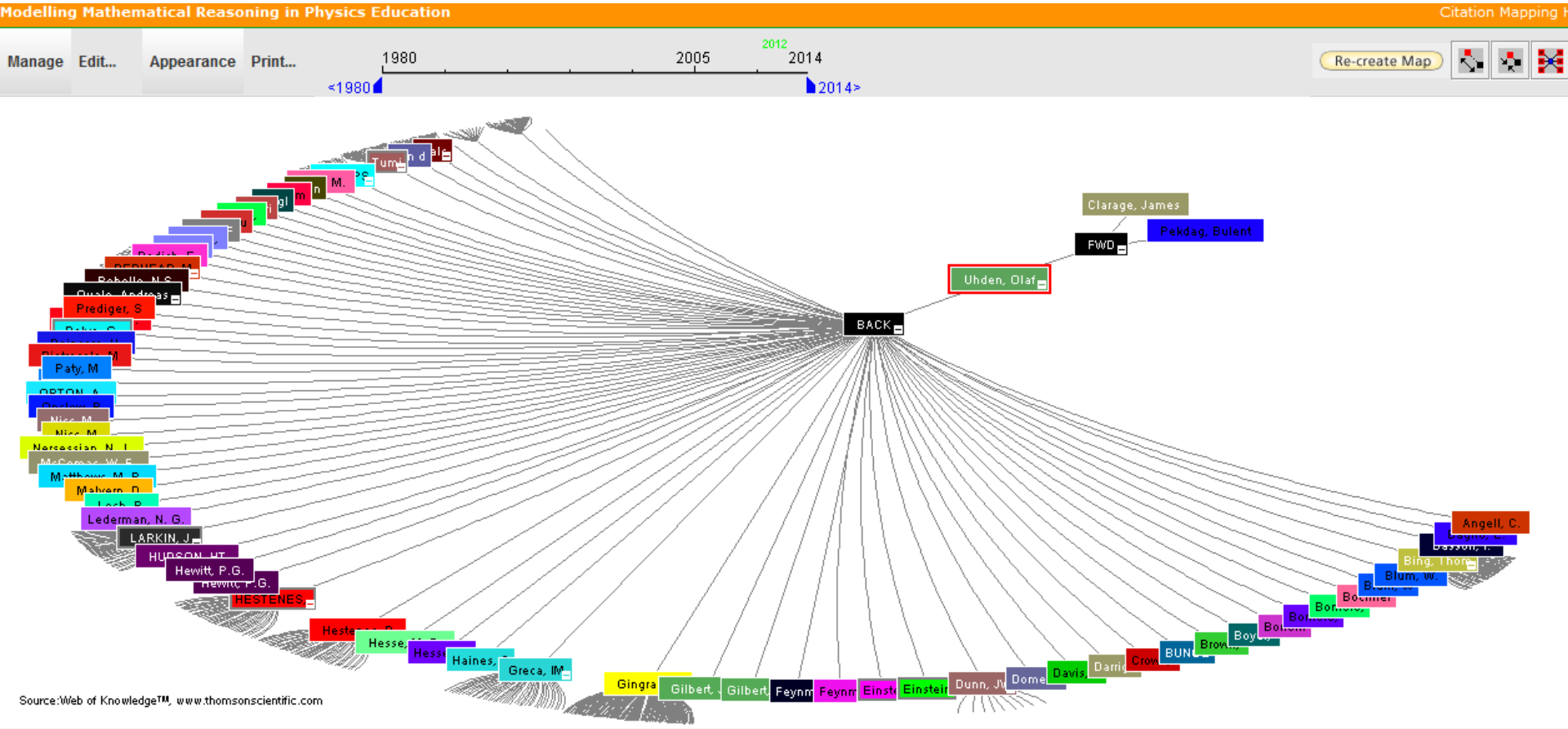
Source: Making Research Count: Analyzing Canadian Academic Publishing Cultures

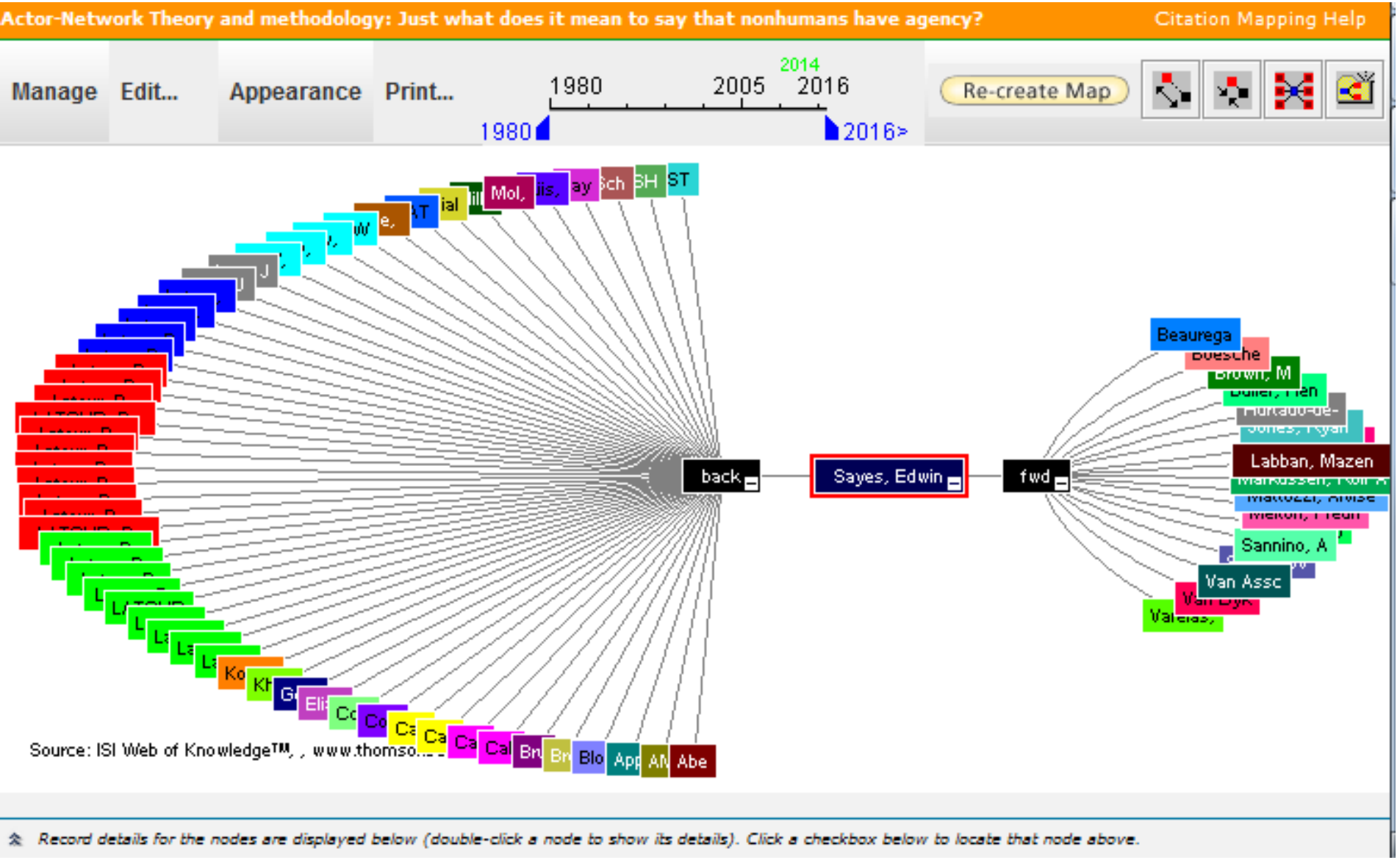
Web of Science

- Web of Science® is perhaps the most well-known tool for determining the number of times a publication has been cited.

- Web of Science® is made up of three citation indexes owned by Thomson Scientific:
  - Science Citation Index ®
  - Social Sciences Citation Index ®
  - Arts & Humanities Citation Index ®.

Source: http://guides.library.vu.edu.au/content.php?pid=251876&sid=2079929





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Search | Author Search | Cited Reference Search | Advanced Search | Search History

Web of Science®

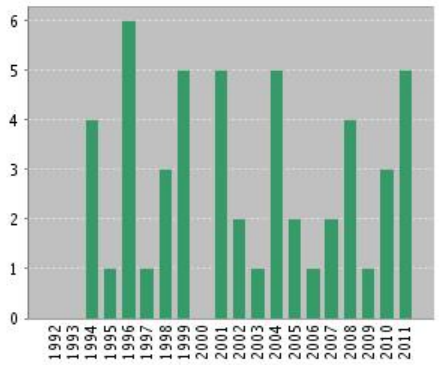
<< Back to previous page

Citation Report Distinct Author Summary: Zadeh, LA

Timespan=All Years. Databases=SCI-EXPANDED, A&HCI, SSCI, CPCI-SSH, CPCI-S.

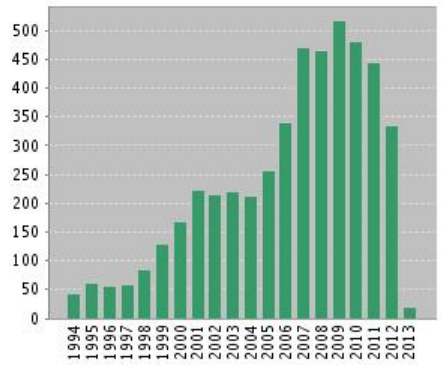
This report reflects citations to source items indexed within Web of Science. Perform a Cited Reference Search to include citations to items not indexed within Web of Science.

Published Items in Each Year



The latest 20 years are displayed.
View a graph with all years.

Citations in Each Year



The latest 20 years are displayed.
View a graph with all years.

Results found:	**75**
Sum of the Times Cited [?]:	**5187**
Sum of Times Cited without self-citations [?]:	**5114**
Citing Articles[?]:	**4159**
Citing Articles without self-citations [?]:	**4130**
Average Citations per Item [?]:	**69.16**
h-index [?]:	**26**

Results: **75** Page 1 of 8 Go Sort by: Times Cited -- highest to lowest

Paper/journal quality

- Another guide to paper/journal quality is the general reputation of the association, society, or organization publishing the journal.
- Leading professional associations such as American Psychological Association (APA) or the Institute of Electrical and Electronics Engineers (IEEE) publish a range of journals that are highly regarded.

The Institute for Scientific Information (ISI)

- The **Institute for Scientific Information** (ISI) was founded by Eugene Garfield in 1960. It was acquired by Thomson Scientific & Healthcare in 1992, became known as **Thomson ISI** and now is part of the Healthcare & Science business of the multi-billion dollar Thomson Reuters Corporation.

- ISI offered bibliographic database services. Its speciality: citation indexing and analysis, a field pioneered by Garfield. It maintains citation databases covering thousands of academic journals, including a continuation of its long time print-based indexing service the Science Citation Index (SCI), as well as the Social Sciences Citation Index (SSCI), and the Arts and Humanities Citation Index (AHCI). All of these are available via ISI's Web of Knowledge database service.

Impact Factor

- The most commonly used measure of journal quality is Impact Factor. This is a number which attempts to measure the impact of a journal in terms of its influence on the academic community. Impact Factors are published by Thomson-ISI

What are journal impact factors?

Impact factors are a measure of the "quality" of a journal - they identify the most frequently cited journals in a field.

Impact factors can be used to:

identify journals in which to publish

identify journals relevant to your research

confirm the status of journals in which you have published

The Impact factor formula

The impact factor of a journal is based on the average number of times that articles published in that journal in the two previous years (e.g. 2008 and 2009) were cited in the subsequent year (i.e. 2010). This is calculated using the following formula:

$$= \frac{\text{Cites in 2010 to items published in 2008 and 2009}}{\text{Number of items published in 2008 and 2009}}$$

If an impact factor is lower than 1.0 that means there were more articles published in the journal than there were cites to those articles in any given year.

Source: http://guides.library.vu.edu.au/content.php?pid=251876&sid=2437240

Be aware that...

- Many journals do not have an impact factor (sources other than JCR need to be consulted).
- The impact factor cannot assess the quality of individual articles.
- Only research articles, technical notes and reviews are “citable” items. Editorials, letters, news items and meeting abstracts are “non-citable items”.

Source: http://guides.library.vu.edu.au/content.php?pid=251876&sid=2437240

CiteScore

CiteScore 2015 methodology

CiteScore 2015 counts the citations received in 2015 to documents published in 2012, 2013 or 2014, and divides this by the number of documents published in 2012, 2013 and 2014.

3-year publication window

The 3-year CiteScore time window was chosen as a best fit for all subject areas. Research shows that a 3-year publication window is long enough to capture the citation peak of the majority of disciplines.

Frequency

	CiteScore	CiteScore Tracker (on Scopus.com)
Calculated	Annually	12 times per year
Updates	None	Monthly

Document types

All types of documents (research articles, review articles, conference proceedings, editorials errata, letters, notes, and short surveys) are included in the CiteScore calculation. Although articles in press are included in Scopus they are not included in the calculation.

Source: https://journalmetrics.scopus.com/

Keeping up-to-date (Alert system)

What is an alert service?

- Many journal databases and book publishers offer free alert services. These are an effective means of keeping track of the latest research.
- Alert services come in different forms. The most common include:
  - a search alert. This is a saved search which alerts you when a book or article that matches your search terms is published.
  - a TOC (Table of Contents) alert. Such an alert notifies you when a new issue of a journal is published, and provides you with the issue's table of contents.
  - a citation alert. This advises you when a new article cites a particular work.
  - Most alert services are email-based. An increasing number are now offered as an RSS feed. If you are just beginning, you might like to try email alerts first. These are generally easier to create.

Keeping up-to-date

Create a Google Alert

- Enter the topic you wish to monitor.
- Search terms:
- Type:
- How often:
- Email length:
- Your email:

Keeping up-to-date

[Scopus Citation Tracker]

Example

- **From:** Google Scholar Alerts [mailto:scholaralerts-noreply@google.com]
  Sent: 2011/02/01 06:21 ق.ظ
  Subject: Scholar Alert - [Virtual Teams: A "Literature Review" + ebrahim]
-
- **Scholar Alert: [Virtual Teams: A "Literature Review" + ebrahim]**
- [PDF] How to Conduct a Literature
- NA **Ebrahim**
  ... Page 10. Narrow the area of research ©2011 Nader Ale **Ebrahim** SMEs NPD **Virtual Teams** R&D R&D and NPD SMEs and **Virtual Teams** R&D and Distributed **Teams** SMEs and R&D Focus of the **literature Review** SMEs, **Virtual** R&D **teams** and NPD NPD and Virtuality **...**
- [PDF] Web Application User Interface Technologies
- M Pohja
  ... are 7 Page 28. Introduction discussed in the next section of this thesis. Finally, web servers may sup- port **virtual** hosting, content compression and other things that may help manage client-server communication. Application **...**
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- Doctoral dissertation for the degree of Doctor of Science in Technology to be presented with due permission of the School of Science for public examination and debate in Auditorium T2 at the Aalto University School of Science (Espoo, Finland) on the **4th of February 2011 at 12 noon**.

- Aalto University
- School of Science
- Department of Media Technology

How to Read a Paper

THE THREE-PASS APPROACH

1-The first pass

The first pass is a quick scan to get a bird's-eye view of the paper. You can also decide whether you need to do any more passes. This pass should take about five to ten minutes and consists of the following steps:

1. Carefully read the title, abstract, and introduction
2. Read the section and sub-section headings, but ignore everything else
3. Read the conclusions
4. Glance over the references, mentally ticking off the ones you've already read.

Source: Keshav, S. (2007). How to read a paper. *ACM SIGCOMM Computer Communication Review*, *37*(3), 83-84.

THE THREE-PASS APPROACH

1- The second pass

In the second pass, read the paper with greater care, but ignore details such as proofs. It helps to jot down the key points, or to make comments in the margins, as you read. The second pass should take up to an hour. You should be able to summarize the main idea of the paper, with supporting evidence, to someone else.

1. Look carefully at the figures, diagrams and other illustrations in the paper. Pay special attention to graphs.
2. Remember to mark relevant unread references for further reading (this is a good way to learn more about the background of the paper).

Source: Keshav, S. (2007). How to read a paper. *ACM SIGCOMM Computer Communication Review*, *37*(3), 83-84.

THE THREE-PASS APPROACH

1- The third pass

To fully understand a paper, particularly if you are reviewer, requires a third pass. The key to the third pass is to attempt to virtually re-implement the paper: that is, making the same assumptions as the authors, re-create the work. By comparing this re-creation with the actual paper, you can easily identify not only a paper's innovations, but also its hidden failings and assumptions.

This pass can take about four or five hours for beginners, and about an hour for an experienced reader.

Source: Keshav, S. (2007). How to read a paper. *ACM SIGCOMM Computer Communication Review*, *37*(3), 83-84.

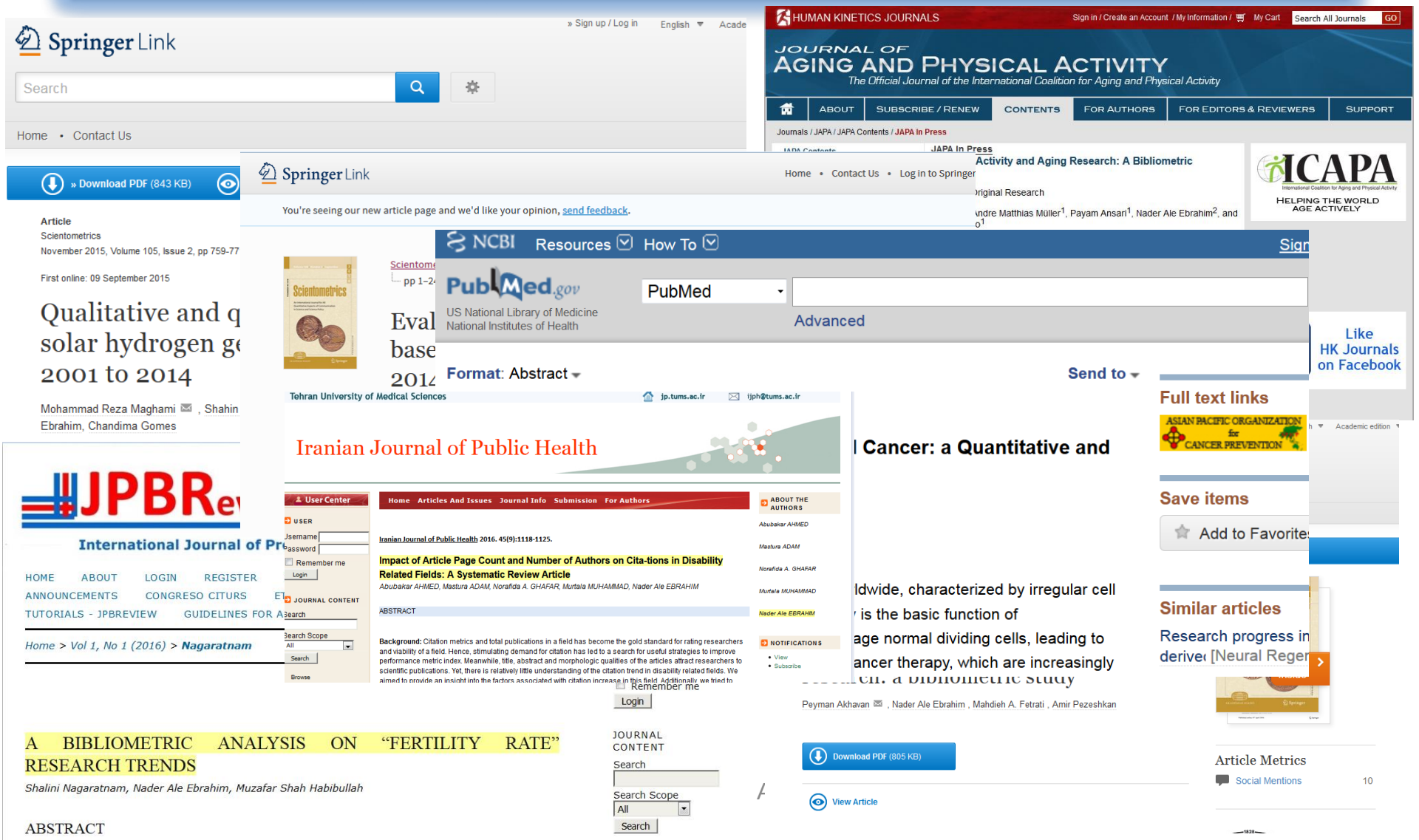
Mind Map Tools

Source: **Mind Map Tools, By:**Seyyed Ali Fattahi Computer PhD Candidate FTSM UKM

Task for second session

- Measure the downloaded papers/journal's quality
- Turn on Alert system in WoS and other databases
- Read Keshav, S. (2007). How to read a paper. *ACM SIGCOMM Computer Communication Review*, *37*(3), 83-84.
- Create your literature review Mind Map

My recent publications



Questions?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Twitter: @aleebrahim


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References

1. Ale Ebrahim, N. (2013). Introduction to the Research Tools mind map. *Research World*, *10*, Article A10.4. Retrieved from https://ssrn.com/abstract=2280007
2. Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). *P*referred *R*eporting *I*tems for *S*ystematic Reviews and *M*eta-*A*nalyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097
3. Keshav, S. (2007). How to read a paper. ACM SIGCOMM Computer Communication Review, 37(3), 83-84.
4. Mind Map Tools, By:Seyyed Ali Fattahi Computer PhD Candidate FTSM UKM

My recent publications:

1. Akhavan, P., Ale Ebrahim, N., Fetrati, M. A., & Pezeshkan, A. (2016). Major trends in knowledge management research: a bibliometric study. *Scientometrics* 1-16. doi:10.1007/s11192-016-1938-x
2. Nagaratnam, S., Ale Ebrahim, N., & Habibullah, M. S. (2016). A Bibliometric Analysis on "Fertility Rate" Research Trends. *International Journal of Professional Business Review, 1*(1), 1-14. doi:10.5281/zenodo.58318
3. Shakiba, M., Ale Ebrahim, N., Danaee, M., Bakhtiyari, K., & Sundararajan, E. (2016). A Comprehensive Comparison of Educational Growth within Four Different Developing Countries between 1990 and 2012. *Revista de Gestão e Secretariado, 6*(3), 152-174. doi:10.7769/gesec.v6i3.486
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5. Farghadani, R., Haerian, B. S., Ale Ebrahim, N., & Muniandy, S. (2016). 35Year Research History of Cytotoxicity and Cancer: a Quantitative and Qualitative Analysis. *Asian Pac J Cancer Prev, 17*(7), 3139-3145. doi:10.14456/apjcp.2016.66
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My recent presentations:

1. Ale Ebrahim, N. (2017). Promote your Research to General Audience through Online Magazine. Paper presented at the 4th SERIES OF INTRODUCTORY WORKSHOP ON: Strategies to Enhance Research Visibility, Impact & Citations, Centre for Research Services, Institute of Research Management and Services (IPPP)", University of Malaya. https://doi.org/10.6084/m9.figshare.4649698.v1
2. Ale Ebrahim, N. (2017). *Create an Audio/Video Slides for your Research*. Paper presented at the 4th SERIES OF INTRODUCTORY WORKSHOP ON: Strategies to Enhance Research Visibility, Impact & Citations, Centre for Research Services, Institute of Research Management and Services (IPPP)", University of Malaya. https://dx.doi.org/10.6084/m9.figshare.4557568.v1
3. Ale Ebrahim, N. (2017). Twitter: A powerful tool to Improve Research Visibility and Impact. Paper presented at the 4th SERIES OF INTRODUCTORY WORKSHOP ON: Strategies to Enhance Research Visibility, Impact & Citations, Centre for Research Services, Institute of Research Management and Services (IPPP)", University of Malaya. https://dx.doi.org/10.6084/m9.figshare.4538783.v1
4. Ale Ebrahim, N. (2017). Share Scientific Data to Improve Research Visibility and Impact. Paper presented at the 4th SERIES OF INTRODUCTORY WORKSHOP ON: Strategies to Enhance Research Visibility, Impact & Citations, Centre for Research Services, Institute of Research Management and Services (IPPP)", University of Malaya. https://dx.doi.org/10.6084/m9.figshare.4515776.v1
5. Ale Ebrahim, N. (2017). *An Introduction and Applications of DOI*. Paper presented at the 4th SERIES OF INTRODUCTORY WORKSHOP ON: Strategies to Enhance Research Visibility, Impact & Citations, Centre for Research Services, Institute of Research Management and Services (IPPP)", University of Malaya. https://dx.doi.org/10.6084/m9.figshare.4509044.v1