

## Publish or Perish?

*The value of Google Scholar  
for extended impact monitoring*



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## Presentation Outline

- My “credentials”
  - I recently conducted a study on Australian publication patterns in Economics & Business
    - Full results published in “Australian Research Output in Economics & Business: High Volume, Low Impact?” *Australian Journal of Management*, December 2005
  - Tools on my website: [Journal Quality List](#) and [Publish or Perish](#)
  - Growing research programme in Quality and Impact of Academic Research
- Context: ERIM performs very well in terms of # of publications, but is not as strong in impact
- The value of extended impact monitoring
  - Google Scholar as a complement to ISI
    - Advantages of extended impact monitoring
  - What is possible in self-service impact measurement (Publish or Perish)?
  - How to get cited?
    - Communicate, collaborate, care



## Google Scholar as a complement to ISI (1)



- ISI has long been the “gold standard” of impact measurement
- Recently, alternatives have become available
  - Scopus (general), Citeseer (computer science), RePEc (Economics)
  - Google Scholar is the only alternative that is:
    - Not focused on a single discipline only
    - Freely available to anyone with an Internet connection
    - Suitable for citation analysis (but only with Publish or Perish as an interface)

## GS to complement ISI (why-1?)



- Google Scholar gives a more comprehensive citation count
- WoS General Search is limited to ISI-listed journals
  - Citations to books, book chapters, dissertations, theses, working papers, reports, conference papers, and journal articles published in non-ISI journals are **not** included
  - Of the journals included in my JQL (generally only high-quality journals), ISI coverage runs from 30%-43% for Finance & Accounting, Management & Marketing to 73%-80% for Economics, MIS, Mgt Science/OR/Ops
  - Of the research output submitted for government evaluation in Australia generally only 24% (Economics) or 11% (Management) was published in ISI listed journals
- WoS Cited Reference Search
  - **Does** include citations **to** non-ISI publications. However, it only includes citations **from** journals that are ISI-listed.
  - Counts citations **to** non-ISI journals only towards the **first** author
    - Co-authorship is increasingly common and hence ISI misses many citations

## GS to complement ISI (why-2?)




- In contrast to GS, ISI seem to have difficulty dealing with non-Anglo name variants
  - 80% of citations to Baden-Fuller have been entered as Badenfuller
  - 80-90% of citations to van Raan have been entered as Vanraan
  - Both receive only about 100-150 citations to their **correct** name in spite of the fact that usually their names were in fact **correctly** referenced (they were apparently incorrectly entered by ISI staff)
- WoS has very limited coverage of non-English sources
  - e.g. one French Accounting academic has 30 cites in ISI, but >1000 in GS as most of citations are in French journals
  - Non-English coverage is particularly important for disciplines with a strong local content such as accounting and industrial relations

## GS to complement ISI (why not?)




- GS includes some non-scholarly citations
  - 92% of the citations identified by GS represented intellectual impact, most were citations from journal articles (Vaughan and Shaw, 2008)
- Not all scholarly journals are indexed in Google Scholar
  - Google Scholar coverage is uneven across different fields of study
  - Coverage in Business & Economics/Social Sciences is generally good
- GS does not perform as well for older publications
  - GS can only parse what is available on the web
- GS automatic processing creates occasional nonsensical results
  - Results in many "garbage" incidental cites, but does not impact too much on overall citation analysis
- GS is not updated as often as Web of Science
  - Update frequency is unknown, but many Publish or Perish users have found that GS often includes citations **before** WoS does
- GS citations **might** be less stable than ISI
  - Web-based materials are inherently more unstable than bibliographic databases
  - However, I have not yet come across instances of "disappearing citations"




## ISI & GS for journals

### Comparison of ISI JIF and GS h-index




- Many universities evaluate **journal** impact rather than **publication** impact
  - Journal impact (ISI JIF) is the **average** number of citations for an article in a particular journal
  - Publication impact is the **actual** number of citations of a publication
- What do you do if the journals you publish in are not ISI listed?
  - Conduct a journal impact analysis with Publish or Perish
  - I suggest using the journal's Google Scholar h-index
    - A journal h-index is for instance 20 if 20 of its papers in a given time-frame have at least 20 citations, and the other papers have no more than 20 citations each
    - Less sensitive to incidental highly-cited papers and ISI errors
    - Provides a broader assessment of impact
- Comparison between the two impact measures conducted for the 536 (out of 838) ISI-listed journals in my JQL
  - Overall correlation between ISI JIF and GS h-index 0.72\*\*\*
  - Sub-discipline correlation varied from 0.63\*\*\* (HR, OB/OS & IR) to 0.89\*\*\* (General Management & Strategy)



## ISI & GS for journals

### Comparison of ISI JIF and GS h-index



- Differences between ISI JIF and GS h-index caused by
  - JIF is mean score, individual highly-cited articles can seriously distort JIF
    - AMR: 4 most cited papers (out of 153) provide 21% of the total number of citations, top-20 most cited papers provide 50% of total citations
    - SIAM Review: JIF jumped from 2.67 (2003) to 6.12/7.21 (2004/05). Why? Newman's "The structure and function of complex networks" had 80% of all citations for 2003
  - GS is more comprehensive as it also measures citations in:
    - Non ISI journals (many in IB/Strategy, European journals, 75% of the non-ISI indexed journals with a high h-index are European journals)
    - Working papers (e.g. NBER) and policy documents (important in Economics)
  - Calculation errors in ISI, e.g. Human Resource Management
    - ISI query for this journal's JIF included a substantial number of homographs referring to Human Resource Review, Human Resource Management Journal as well as books with Human Resource Management in their title
- Conclusion
  - GS journal h-index is an important additional measure of journal impact that addresses some of the limitations of the ISI JIF



## GS for individuals

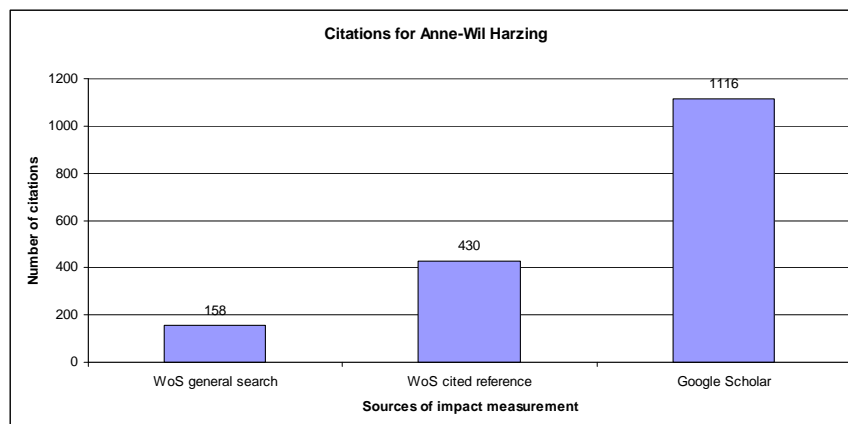
How to keep track  
of your extended citations?



- Publish or Perish
  - Designed to make GS a more useful alternative to ISI
  - Designed to **empower** individual academics by providing citation analysis with a wide range of metrics at a click of the mouse
  - As with ISI: don't take its results as absolute and think before passing a "verdict"; we are dealing with human beings, not machines!
  - **Do** feel free send me feedback (but **please** read the help file first)

## GS for individuals


How big is the difference  
in # of citations with ISI?



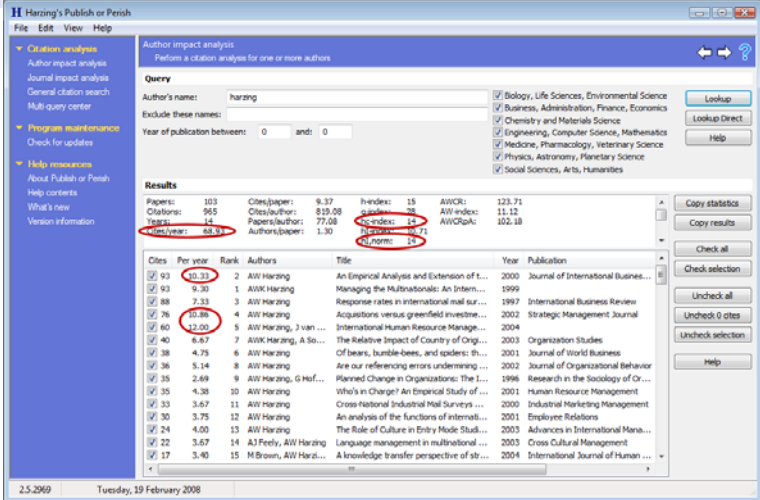
## GS for individuals

### How to present your case?

- Review various measures of impact
  - Many well-cited pubs (h-index) vs some highly-cited pubs (g-index)
  - Young versus older researchers (hc index measures current impact)
  - Single versus co-authored (hI norm corrects for multiple authors)
- Which of your publications is a star?
  - Review citations per year for each publication
  - Shows you which of your research topics have more impact
  - What type of publication is it?
- How does your article score within the journal?
  - Is it one of the top-3, top-10 scorers in that year?
  - Is it the first listed single-authored paper?
  - Is it the first listed paper from your country?



## Pick your metrics wisely



Cites	Per year	Rank	Authors	Title	Year	Publication
93	10.33	2	AW Harzing	An Empirical Analysis and Extension of...	2000	Journal of International Busines...
93	9.30	1	AWK Harzing	Managing the Multinationals: An Intern...	1999	International Business Review
88	7.33	3	AW Harzing	Response rates in international mail sur...	1997	International Business Review
76	10.66	4	AW Harzing	Acquisitions versus green-field investm...	2002	Strategic Management Journal
60	12.00	5	AW Harzing, J van ...	International Human Resource Manage...	2004	Organization Studies
40	6.67	7	AWK Harzing, A So...	The Relative Impact of Country of Orgi...	2003	Organization Studies
38	4.75	6	AW Harzing	Of bees, bumble-bees, and spiders: th...	2001	Journal of World Business
36	5.14	8	AW Harzing	Are our referencing errors undermining ...	2002	Journal of Organizational Behavior
35	2.68	9	AW Harzing, G Hof...	Planned Change in Organizations: The L...	1996	Research in the Sociology of Cr...
35	4.38	10	AW Harzing	Who's in Charge? An Empirical Study of ...	2001	Human Resource Management
33	3.67	11	AW Harzing	Cross-National Industrial Mail Surveys ...	2000	Industrial Marketing Management
30	3.75	12	AW Harzing	An analysis of the functions of internat...	2001	Employee Relations
24	4.00	13	AW Harzing	The Role of Culture in Entry Mode Studi...	2003	Advances in International Mana...
22	3.67	14	AJ Feely, AW Harzing	Language management in multinational ...	2003	Cross Cultural Management
17	3.40	15	M Brown, AW Harzi...	A knowledge transfer perspective of str...	2004	International Journal of Human ...

## Ex-equo most cited paper

The screenshot shows the 'Journal impact analysis' window for 'Journal of World Business'. The query is set to the year 2001. The results table is as follows:

Cites	Per year	Rank	Authors	Title	Year	Publication
30	4.75	2	A Jasser, J Quintanilla, MZ Varul	Country-of-origin effects, host-country ...	2001	Journal of World Busin...
30	4.75	1	AW Harzing	Of bees, bubble bees, and spiders: the...	2001	Journal of World Busin...
31	3.88	6	M Lazarova, P Calgus	Retaining expatriates: the role of organiz...	2001	Journal of World Busin...
31	3.88	3	P Vercy, DM Schweiger	The acquisition process as a learning pro...	2001	Journal of World Busin...
29	3.63	4	T Shi	Technological capabilities and internatio...	2001	Journal of World Busin...
27	3.38	5	D Angim	Mergers and acquisitions across Europe...	2001	Journal of World Busin...
26	3.25	7	P Ghauri, T Fang	Negotiating with the Chinese: a socio-cul...	2001	Journal of World Busin...
23	2.88	8	H Scullion, C Brewster	The management of expatriates: messag...	2001	Journal of World Busin...
21	2.63	10	CS Wong, T Wong, C Hui, KS ...	The significant role of Chinese employe...	2001	Journal of World Busin...
19	2.38	11	JM Detzel, RA Bettis, M Zenger	Country risk measures: how risky are they?	2001	Journal of World Busin...
19	2.38	9	J Bee, C Rowley	The impact of globalization on HRM: the ...	2001	Journal of World Busin...
18	2.25	13	D Townsend, C Hui, KS Law	Constructive conflict in Chinese cooperati...	2001	Journal of World Busin...
15	1.88	12	GD Bruton, D Ahlstrom, JCC ...	Turnaround success of large and midsize ...	2001	Journal of World Busin...
15	1.88	14	JA Krug, D High	Executive perceptions in foreign and do...	2001	Journal of World Busin...
14	1.75	15	S Gherardi, B Poggio	Creating and recreating gender order in ...	2001	Journal of World Busin...

## Most cited single-authored paper

The screenshot shows the 'Journal impact analysis' window for 'International Business Review'. The query is set to the year 1997. The results table is as follows:

Cites	Per year	Rank	Authors	Title	Year	Publication
249	20.75	1	TK Madsen, P Servais	The internationalization of Born Globals: ...	1997	International Business
216	18.00	2	N Couvato, H Munro	Network relationships and the internatio...	1997	International Business
20	2.33	3	AW Harzing	Response rates in international mail sur...	1997	International Business
17	2.58	5	J Lee	A comparative study of the export probl...	1997	International Business
26	2.17	4	S Jun, S Lee, JG Gentry	The effects of acculturation on consum...	1997	International Business
20	1.67	6	T Clark, DS Pugh, G Mallory	The process of internationalization in th...	1997	International Business
19	1.58	7	K Kamasche	Managing human resources in Africa: Str...	1997	International Business
17	1.42	8	UJ Anderson, C Pahlberg	Subsidiary influence on strategic behavi...	1997	International Business
16	1.33	11	AE Boardman, DM Shapiro, A...	The role of agency costs in explaining th...	1997	International Business
15	1.33	10	M Mutnell, L Piscitello	Differences in the strategic orientation o...	1997	International Business
15	1.25	9	A Diamantopoulos, S Homcastle	Use of export marketing research by ind...	1997	International Business
13	1.08	12	S Proszvich	The Transition Process in an Arbitrary St...	1997	International Business
11	0.92	14	RE Morgan, CS Katsikas	Export stimuli: Export intention compo...	1997	International Business
11	0.92	13	AI Millington, BT Baylis	Instability of market penetration joint v...	1997	International Business
11	0.92	17	KS Cravens	Examining the role of transfer pricing as ...	1997	International Business



## Most cited paper from [country] or non-NA

The screenshot shows the 'Harzing's Publish or Perish' software interface. The 'Query' section is set to 'Journal of International Business Studies' for the year 2000. The 'Results' section displays a table of papers with the following data:

Cites	Per year	Rank	Authors	Title	Year	Publication
129	14.33	1	JH Dyer, W Chu	The Determinants of Trust in Supplier-Au...	2000	Journal of International...
98	10.89	2	Y Fan, DK Tee	The Hierarchical Model of Market Entry M...	2000	Journal of International...
94	10.44	4	J Birkshire, N Hood	Characteristics of Foreign Subsidiaries in ...	2000	Journal of International...
93	10.33	5	X Liu, P Siler, C Wang, Y Wei	Productivity Spillovers from Foreign Direc...	2000	Journal of International...
93	10.33	5	AW Harzing	An Empirical Analysis and Extension of th...	2000	Journal of International...
83	9.22	7	P Ellis	Social Ties and Foreign Market Entry ...	2000	Journal of International...
79	8.78	6	AS Thomas, SL Mueller	A Case for Comparative Entrepreneurshi...	2000	Journal of International...
71	7.89	8	PS Davis, AB Desai, JD Francis	Mode of International Entry: An Isomorp...	2000	Journal of International...
71	7.89	9	MD Lord, AI Ranft	Organizational Learning about New Inter...	2000	Journal of International...
55	6.11	10	A Sethi, KP Song, R Pettit	Synergy, Managerial or Hubris? an Em...	2000	Journal of International...
51	5.67	13	N Driffeld, H Munday	Industrial Performance, Agglomeration, ...	2000	Journal of International...
48	5.33	11	J Fahy, O Hoadley, T Cox, J Be...	The Development and Impact of Marketl...	2000	Journal of International...
48	5.33	12	N Athanassiou, D Nigh	Internationalization, Tacit Knowledge an...	2000	Journal of International...
43	4.78	14	FL Dubois, D Reeb	Ranking the International Business Journal...	2000	Journal of International...
42	4.67	15	A Modrak, T Osegowitsh	The International Biotechnology Industry...	2000	Journal of International...

## What determines citations (1)?



- Judge et al. (AMJ 2007)
  - Universalistic (content of article): Article quality
    - Ideas: exploration research plot
    - Methodology: longitudinal design (out of 8 variables)
    - Writing style: clear & readable, length
  - Particularistic/social constructivist (source of article)
    - Previous top-tier publications of authors, prestige of affiliation
  - Combined universalistic/particularistic
    - JIF of the journal, subjective prestige of the journal, first-listed article in journal
  - JIF explains the largest proportion of variance
    - But: don't fall into the reverse causality trap, article citations determine the JIF, not the other way around
    - But: there is huge variability within journals (as we have seen)
    - But: this isn't necessarily true for individuals, out of my 6 most-cited publications 4 did **not** appear in ISI listed journals

## What determines citations (2)?



- Stremersch et al. (JMark 2007)
  - Quality of the article (universalistic)
    - Objectively operationalised as article order, awards, length
      - However, these might also be independent factors influencing citations, not necessarily reflections of quality
      - Article order is a combined U/P factor in the AMJ study
  - Visibility & Self-Promotion (particularistic)
    - Business school ranking & EB membership, number of previous publications, self citation intensity
  - Presentation
    - Title length, attention grabbers, expositional clarity (part of article quality in AMJ study) are not generally significantly related to citations

## How to use GS extended impact?



- GS extended impact
  - Citations in non-ISI journals including non-English journals
  - Citations in conference/working papers
  - Citations in books/book chapters/theses
  - Provides a broader picture of both academic and policy/practice impact
- GS provides access to extended impact measures that give a better impact assessment of
  - Journals that are not ISI listed
  - Younger academics (citations in conference/working papers)
  - Academics who work in fields that have limited ISI coverage (e.g. IB/Strategy, Industrial Relations, Accounting)
  - Academics who publish research monographs
  - Academics who work in fields where influence on policy/practice is as or more important than academic impact

## How to get cited? My own take (1)




- Do research that interests you and that uses your unique skills
  - Don't do theory work or reviews or meta analyses just because they get more citations
  - If you are passionate about a topic, you'll be more likely to do good research
    - Our aim should be to conduct good scholarship, not to publish in good journals
- Write the best paper you can; select the most appropriate outlet for it
  - Get research training if you need it (and nearly all of us do!)
  - Don't submit to ASQ/AMJ/JM/JAP etc. just to "give it a try"
    - Even if it gets published it might not be cited if it is not part of the "conversation"
- Do the things any academic should do anyway
  - Communicate, collaborate, care
  - This will improve your visibility and hence the chances of your excellent work being noticed

## How to get cited? My own take (2)



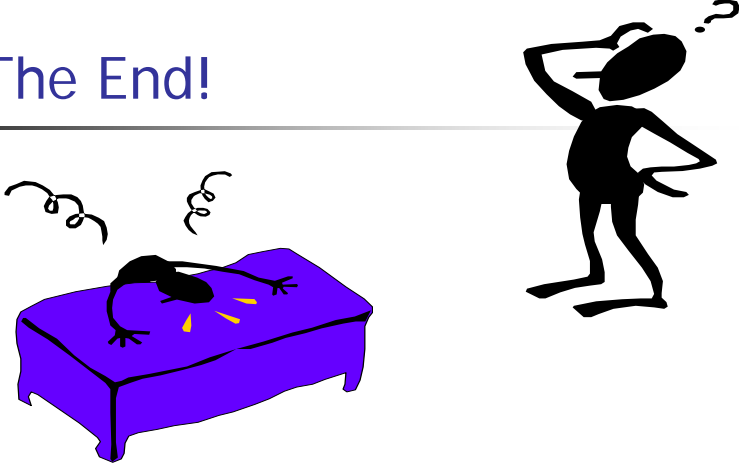
- **C**ommunicate (they can't cite your paper, if they don't know it)
  - Website, the best thing I have ever done, online papers are cited more
  - Conferences, attend & **t**alk to people
    - volunteer for PDWs, discussant, session chair, committees
  - Email, ask for papers and send yours in return
- **C**ollaborate
  - It often leads to better quality research **and** it's fun!
  - Co-authored papers are cited more
  - Your collaborators will cite you in other projects
- **C**are
  - For your own reputation, it is your most valuable asset
  - For others; help wherever you can
    - Keep the promises you make at conferences
    - Alert collaborators to useful information & congratulate them on their achievements
    - **T**hank others for their help!

## More information?



- Publish or Perish
  - <http://www.harzing.com/pop.htm>
- Research programme
  - Quality and Impact of Academic Research  
<http://www.harzing.com/program6.htm>
- Academic papers
  - Google Scholar: the democratization of citation analysis?  
<http://www.harzing.com/papers.htm#gsdemo>
  - A Google Scholar H-Index for Journals  
<http://www.harzing.com/papers.htm#hjournals>
- White papers
  - Google Scholar - a new data source for citation analysis  
[http://www.harzing.com/pop\\_gs.htm](http://www.harzing.com/pop_gs.htm)
  - Reflections on the h-index [http://www.harzing.com/pop\\_hindex.htm](http://www.harzing.com/pop_hindex.htm)
  - Reflections on norms for the h-index and related indices  
[http://www.harzing.com/pop\\_norm.htm](http://www.harzing.com/pop_norm.htm)
- These papers also include an extensive bibliography on various issues related to the measurement of research impact

## The End!



**Any questions or comments?**