Publish or Perish?

The value of Google Scholar for extended impact monitoring

Anne-Wil Harzing
University of Melbourne
www.harzing.com

Presentation Outline

- My “credentials”
  - I recently conducted a study on Australian publication patterns in Economics & Business
  - 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)

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
  - 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 Management 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?

![Citations for Anne-Wil Harzing](chart.png)

<table>
<thead>
<tr>
<th>Sources of impact measurement</th>
<th>Number of Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>WoS general search</td>
<td>158</td>
</tr>
<tr>
<td>WoS cited reference</td>
<td>430</td>
</tr>
<tr>
<td>Google Scholar</td>
<td>1116</td>
</tr>
</tbody>
</table>
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 (h1 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
Ex-equo most cited paper

Most cited single-authored paper
Most cited paper from [country] or non-NA

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. (J Mark 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)

- Communicate (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 & talk to people
    - volunteer for PDWs, discussant, session chair, committees
  - Email, ask for papers and send yours in return
- Collaborate
  - 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
- Care
  - 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
    - Thank others for their help!
More information?

- Publish or Perish
- 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
  - Reflections on the h-index http://www.harzing.com/pop_hindex.htm
  - Reflections on norms for the h-index and related indices
    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?