The Changing Landscape of the Publishing Industry

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About me

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The need of authors

Main motivations for publishing remain unchanged: furthering the author’s career and gaining access to additional funding for future research.

But authors become more demanding:

— Are now buyers (in Open Access)
— Want fast and efficient publishing process
— Demand better author experience and services
Open Access is growing fast ...

... but subscription journals grow, too!
Open Access Publishing, then and now...

2000

2014

And many more...
“For me, the Green Road [Open Access] is like coming fourth in a major championship. A great achievement, without doubt, but if you are going for gold, fourth place is the most frustrating place you can achieve. Ultimately, it is only the winner that everyone remembers.”

SANDER DEKKER
STATE SECRETARY OF EDUCATION
Open Access market share

- Subscription Journals: 87%
- "Full" OA Journals: APC 8%
- "Full" OA Journals: Non-APC 3%
- OA Articles in Hybrid Journals: 2%

Source: Web of Science; English language articles published in 2013; N=1,346,405

- OA has been increasing by 30% pa
- Now comprising 13% of the market
OA not the main decision criterion when selecting a journal

Springer Author Satisfaction Survey

How important are the following factors for you when deciding to submit a manuscript to a particular journal? Top 1 Box (very important; in percent)

- Journal's reputation: 62%
- Quality of journal's papers: 58%
- Quality of peer review: 57%
- International scope: 53%
- Speed of publication: 51%
- Impact Factor: 50%
- Electronic submission: 49%
- Coverage by major A&I: 49%
- Readership: 42%
- Advanced online publication: 40%
- Editors / editorial board: 35%
- Prior experience: 31%
- Design / layout: 17%
- Open Access: 11%

BMC Author Satisfaction Survey

Top Reasons why manuscript was submitted (authors are asked to mention the three most important reasons)

- Journal scope: 28%
- Journal reputation/profile: 12%
- Fast peer review: 8%
- Good prior experience: 8%
- Open Access: 7%
The Impact Factor of journals converting from subscription to OA

The measurement of ‘quality’
The rise of the mega-journals

- Launched June 2006
- Biology and Medicine
- Rejection rate: 15%
- Jan 2012: Article 30,000 published
- 2010 Impact Factor: 4.351
Which article made a bigger impact?

- Article published in a top-tier journal with ‘0’ citations after 2 years

- Article published in a lower impact journal with tens of citations
Which article made a bigger impact?

- Article with many citations
- Article widely discussed in the social web
- Article with lots of downloads
- Article discussed on CNN
External forces are driving change

“The Wellcome Trust OA Policy (...) affirms the principle that it is the intrinsic merit of the work, and not the title of the journal in which the author’s work is published, that should be considered in making funding decisions.”

“There is a pressing need to improve the ways in which the output of scientific research is evaluated by funding agencies, academic institutions, and other parties.”

San Francisco Declaration on Research Assessment

Changed Research Evaluation in:
- UK
- Netherlands
- Australia
Research dissemination channels are changing rapidly to accommodate the increasing volume of scholarly literature
**Article-level Metrics**

- Scholarly citations
- Downloads
- Non-scholarly citation
  - News coverage
  - Twitter, Facebook, Google+
  - Blogs, Wikipedia
  - Policy documents
- Post-publication recommendations
  - Faculty of 1000
  - PubPeer, Pubmed Commons, Publon
  - Mendeley, ResearchGate, Academia.edu, Papers

Altmetrics
Altmetrics: meaning?

- Altmetrics are “representing very different things” (Lin & Fenner, 2013)

- unclear what exactly they measure:
  - scientific impact
  - social impact
  - “buzz”

Policy documents

World Health Organization (WHO)

“WHO policy on collaborative TB/HIV activities: guidelines for national programmes and other stakeholders”

Intergovernmental Panel on Climate Change (IPCC)

“Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation”

National Institute for Health and Care Excellence (NICE)

“Delivering Accident Prevention at local level in the new public health system: Road safety policy and links to wider objectives”
Article authors like it

- 65% felt the metrics were useful
- 77% agreed or strongly agreed that altmetrics enhanced the value of the journal article
- 50% agreed they were more likely to submit a paper to a journal that supports altmetrics

Source: Web poll from Wiley’s alternative metrics pilot, 2014
http://exchanges.wiley.com/blog/2014/03/19/wiley-introduces-altmetrics-to-its-open-access-journals/
As do institutional users

<table>
<thead>
<tr>
<th>Librarians</th>
<th>Research administrators</th>
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<tbody>
<tr>
<td>★ I want to help researchers track the attention paid to their articles.</td>
<td>★ I want to monitor &amp; report on uptake, usage, and impact of publications by department.</td>
</tr>
<tr>
<td>★ I want to add value to my institutional repository.</td>
<td>★ I want to comply with funder and governmental mandates.</td>
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<tr>
<th>Communications / PR team</th>
<th>Researchers</th>
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<tr>
<td>★ I want to share our institution’s success stories.</td>
<td>★ I want to find indicators of impact for my CV and funding applications.</td>
</tr>
<tr>
<td>★ I want to maximise the reach of our institution’s research.</td>
<td>★ I want to make informed decisions on future publishing choices.</td>
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Current use of altmetrics at Wellcome

Engagement/Influence beyond citations

Industry Use of Evidence to Influence Alcohol Policy: A Case Study of Submissions to the 2008 Scottish Government Consultation

Jim McCambridge, Ben Hawkins, Chris Holden

Summary Points

- We examine how research evidence is used in alcohol industry submissions made to a Scottish Government consultation in 2008 to advocate policies in line with their commercial interests.
- Industry actors consistently oppose the approaches found in research to be most likely to be effective at a population level without actually engaging with the research literature in any depth.
Engagement/Influence beyond citations

C_Sthler_MEP @perricev2 now commenting on today's article exposing tactics of alcohol industry. Link beneath http://t.co/88r2Wdje9K Apr 24, 2013

bermanninstitute #PLOSMedicine: Industry Use of Evidence to Influence Alcohol Policy: Case Study of Submissions to 2008 Scottish Govt http://t.co/iw0xOupWLP Apr 24, 2013

RTaylor_MEP #LSHTM publishes article suggesting #alcohol industry submissions on #Scottish alcohol policy are misleading: http://t.co/zEsYTFQwJ4 Apr 24, 2013

MaroaskaRovers "@veitchemla: Alcohol industry influence on policy. http://t.co/4dB7RuYnlf @plosmedicine" As expected comparable to tobacco industry. Apr 24, 2013

veitchemla Alcohol industry influence on policy: misrepresented strong evidence and promoted weak evidence. http://t.co/WwSzV5MMLw @plosmedicine Apr 24, 2013

andy_rowell Big Alcohol, Bad Habits: RT @PLOSMedicine: Drinks industry attempted to influence Scottish Government’s alcohol policy http://t.co/nxbAv9DMks Apr 24, 2013

IOGTnt RT @SCPHP: MT @PLOSMedicine Drinks industry attempted to influence Scottish Government’s alcohol policy http://t.co/CSFKU1whkW #bigalcohol Jun 3, 2013

SojiAdey1 Shaken and stirred. @PLOSMedicine: Drinks industry attempted to influence Scottish Government’s #alcohol policy http://t.co/na8QSdLx3" Apr 24, 2013
Scholarly vs non-scholarly citations

“Tweets can predict highly cited articles within the first 3 days of article publication.

Data & Methodology

- Top 20 most cited articles published between 2011 to 2013 in Web of Science (WOS) for 18 subject categories
- Top 20 articles from altmetric.com with high altmetric score for 18 subject categories
- Subject categories –
  1. economics;
  2. medicine, general & internal;
  3. mathematics;
  4. sociology;
  5. psychology;
  6. computer science, information systems;
  7. engineering, multidisciplinary;
  8. physics, applied;
  9. chemistry, applied;
  10. biology;
  11. business;
  12. literature;
  13. language and linguistics;
  14. law;
  15. history;
  16. art;
  17. music;
  18. communication.

Joan WEE Jee Foon, Senior Librarian, New Media Group, Library, Nanyang Technological University, Singapore
Is there a relationship between altmetrics scores and citation counts for these 18 subject categories?

Top articles in medicine are likely to be both highly cited and have high social impact (altmetric score)

What is the correlation?
How could they be useful?

Article level metrics present different ways to look at the scientific community’s reaction to a publication, and could help:

• filter research for relevance, impact & quality

• give an alternative to the Impact Factor in assessing the impact of research

• understand of how research findings are disseminated and discovered

• research into the relationship of new article level metrics with more traditional measures, i.e. citations
Article level metrics at Springer

• ‘Translating’ article level metrics data into attractive promotional messages
• Highlighting the top shared, cited, downloaded articles of key journals
• Highlights:
  • NeuroStars
  • Week of Citations
NeuroStars

- The first ALM driven promotional campaign from Springer, launched December 2012
- Campaign duration 2014: March 10-16, in time for the Brain Awareness Week (jointly with BioMed Central)
- Article selection: Top 15 shared, top cited, top downloaded articles from all journals in the field

Now available: Quarterly NeuroStars

- A permanent website on springer.com presenting the top shared articles in Neuroscience from Springer and BioMed Central – updated on a quarterly basis

http://www.springer.com/neurostars
Diversity of Citations Metrics

What is the impact of an article?

When assessing the impact of a published research article, it might seem logical to look at the Impact Factor of the journal that you find it in. But as journals and scholars have moved online, and citation indexing has been automated, the wealth of information for citation discovery and analysis has vastly increased.

Citation counts can tell a more accurate story about the scholarly impact that an individual article has made than the journal Impact Factor. But where should you look for these counts? There are a number of indexing services tracking and providing information about citations, each with advantages and disadvantages, spanning from bias to discipline-dependence, and limitations of the citation data source.
An often heard question in the academic realm:

“HOW MANY CITATIONS DO YOU HAVE?”

That depends on the platform! Let’s have a look...

**Scopus**
Abstract and citation database maintained by Elsevier
Coverage: 53 million records including books, subscription-based and open access journals, conference papers, patents

**Google Scholar**
Freely accessible web search engine indexing full texts of scholarly literature
Coverage: Most online journals, books, preprints, theses, selected web pages

**CrossRef**
Digital Object Identifier (DOI) Registration Agency and reference linking service
Coverage: Interlinking of journals, books, conference proceedings and datasets

**Web of Science**
Abstract and citation database maintained by Thomson Reuters
Coverage: 46.1 million records including books, subscription-based and open access journals, conference proceedings

**PubMed**
Free search engine maintained by the United States National Library of Medicine at the National Institutes of Health (NIH)
Coverage: Over 23 million records including subscription-based and open access journals

The diverse world of citation indexing services

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To highlight just how different the citation counts can be between different indexes, we've had a look at some of the highly cited content across Springer and Nature's extensive journal portfolio in this area to tell us a bit more.

Comparing the average citation counts to a sample of 33 highly cited articles across ISI Web of Science, Scopus, PubMed Central (PMC), CrossRef and Google Scholar reveals that the numbers, certainly in the area of stem cell research, differ quite substantially.

As the graph below shows, the average number of citations to the articles we looked at is highest in Google Scholar, with over three times the number of citations indexed in PubMed Central.

One sample article that we looked at in more detail had over 5 times more citations in Google Scholar than in any other index.
## Going forward...

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<thead>
<tr>
<th>Type</th>
<th>Level Metrics</th>
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<tbody>
<tr>
<td>article</td>
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<tr>
<td>journal</td>
<td>journal-level metrics</td>
</tr>
<tr>
<td>chapter</td>
<td>chapter-level metrics</td>
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<tr>
<td>book</td>
<td>book-level metrics</td>
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<tr>
<td>data</td>
<td>data-level metrics</td>
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<tr>
<td>person</td>
<td>person-level metrics</td>
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<tr>
<td>...</td>
<td>...-level metrics</td>
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</tbody>
</table>

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Person-level metrics: Altmetric & ORCiD

Profile for John Maunsell

Profile for John Maunsell ORCID profile

Published works

- Cover videos
  - 10.1523/JNEUROSCI.2491-13.2013

- Insights into cortical mechanisms of behavior from microstimulation experiments
  - 10.1016/j.neurobio.2012.01.006

- New journal sections
  - 10.1523/JNEUROSCI.5529-12.2012

- Strength of Gamma Rhythm Depends on Normalization
  - 10.1371/journal.pbio.1001477

- A strong constraint to the joint processing of pairs of cortical signals
  - 10.1523/JNEUROSCI.2186-12.2012

- Potential confounds in estimating trial-to-trial correlations between neuronal response and behavior using choice probabilities
  - 10.1152/jn.00471.2012

Altmetric stats

- BLOGS: 11
- F1000: 13
- FACEBOOK: 15
- GOOGLEPLUS: 50
- NEWS: 11

Twitter: 49
Video: 4

http://altmetric-orcid-profiles.herokuapp.com/0000-0003-0018-4439
The Social N400 effect: how the presence of other listeners affects language comprehension

Shirley-Ann Rueschemeyer et al.

Psychon Bull Rev, pp. 1–7

Brief Report

The Social N400 effect: how the presence of other listeners affects language comprehension
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Announcing the 1st Altmetrics Conference: London

As scholarly communication evolves, alternative measures of impact and reach are taking an increasingly important role in the research evaluation process. Following a number of constructive workshops over the last few years, we now invite you to join us this September for the 1st Altmetrics Conference: London.

We will be taking a closer look at how authors, readers, funders, publishers and institutions are beginning to integrate altmetrics into their scholarly communication processes — and the challenges that they face along the way.

With a quick overview of recent developments and future plans, we will aim to better understand how and why altmetrics can be of use to the community — and draw further inspiration from those outside academia.

Additionally, the scope of the workshop will expand to examine online behaviour at a more granular level; how and why do people share and discuss scholarly content online, and what is the impact of this?

Supported by:

https://www.youtube.com/user/altmetricsconference
Questions?