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Measuring Your Research Impact: Citation and Altmetrics Tools

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Measuring Your Research Impact

Citation and Altmetrics Tools

Association of Rhode Island Health Sciences Libraries

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Scholarly Impact

How do researchers measure the impact of their work?

Andrée

What are some of the ways we're familiar with?

Impact factor: Can someone tell us what the IF is, exactly?

Journal Impact Factor

“The impact factor (IF) of an academic journal is a measure reflecting the average number of citations to recent articles published in that journal. It is frequently used as a proxy for the relative importance of a journal within its field...

In any given year, the impact factor of a journal is the average number of citations received per paper published in that journal during the two preceding years”

— Wikipedia, “[Impact factor](#)”

Andrée

Proprietary metric produced by Thomson-Reuters.

Has anyone heard any critiques of the IF?

What is wrong with it?

What's wrong with the IF?

- Most citations are to a small number of a journal's articles. The IF doesn't tell us if a particular article is highly cited or not.
- Can be "gamed" by editorial policy, e.g. by requiring authors to cite other articles that appeared in the journal or by commissioning review articles which tend to receive a lot of citations.
- Only applies to journals.

Andrée

So, the IF can be useful for librarians in trying to decide what journals to subscribe to,

But not for measuring the quality of individual articles.

San Francisco Declaration on Research Assessment (DORA)

“Do not use journal-based metrics, such as Journal Impact Factors, as a surrogate measure of the quality of individual research articles, to assess an individual scientist’s contributions, or in hiring, promotion, or funding decisions.”

— <http://am.ascb.org/dora/>

Andrée

Released in 2013.

Initiated by the American Society for Cell Biology together with a group of editors and publishers of scholarly journals.

Recognized the need to improve the ways in which the outputs of scientific research are evaluated.

What is the alternative?

Article-Level Metrics

Quantify how individual articles are being used

Altmetrics

Extend the measurement of impact beyond journal articles and beyond the academy

Andrée

Now that research and researchers have moved online and are no longer limited by the constraints of a print-based world, it is possible to measure the impact of scholarship in new ways.

Evaluation can and should be done at the level of the research product itself.

Article Level Metrics

- Measure impact at the article level, e.g.
 - citation counts
 - download counts
- These can include altmetrics
- Example: PLoS Medicine
 - <http://dx.doi.org/10.1371/journal.pmed.1001603>
- Example: Nature
 - <http://dx.doi.org/10.1038/nature12961>

Andrée

See “Metrics” tab of PLoS Medicine article.

See “Article Metrics” link in Nature article.

Science has too under “Info & Metrics”, e.g. <http://dx.doi.org/10.1126/science.aad2149>

Altmetrics

- More research outputs (not just articles)
 - books, book chapters, data sets, computer code, presentation slides, posters, blog posts, digital humanities projects, websites
 - Products must be online

Andrée

Altmetrics definition from Wikipedia: In scholarly and scientific publishing, altmetrics are non-traditional metrics proposed as an alternative to more traditional citation impact metrics, such as impact factor and h-index. The term altmetrics was proposed in 2010, as a generalization of article level metrics, and has its roots in the #altmetrics hashtag. Although altmetrics are often thought of as metrics about articles, they can be applied to people, journals, books, data sets, presentations, videos, source code repositories, web pages, etc. They are related to Webometrics, which had similar goals but evolved before the social web. Altmetrics did not originally cover citation counts. It also covers other aspects of the impact of a work, such as how many data and knowledge bases refer to it, article views, downloads, or mentions in social media and news media. <https://en.wikipedia.org/wiki/Altmetrics>

See also: J. Priem, D. Taraborelli, P. Groth, C. Neylon (2010), Altmetrics: A manifesto, 26 October 2010. <http://altmetrics.org/manifesto>

Altmetrics

- More types of impact (not just scholarly)
 - SCOPUS and PubMed Citations, Mendeley saves, CiteULike saves, tweets, blog posts, media mentions, delicious bookmarks, Wikipedia citations, etc.
 - Different “flavors” of impact demonstrate scholarly value as well as real-world impact (funders and universities care)

Andrée

Altmetrics

- More immediate
 - Can demonstrate impact right away rather than waiting for citations to accrue

=> Can free scholars to experiment and receive credit for new types of scholarly products

Andrée

Think of being able to get credit and recognition for the mention and re-use of your datasets, lab notebooks, digital humanities projects.

February 25, 2016 - The National Information Standards Organization (NISO) seeks comments on the draft Altmetrics Data Quality Code of Conduct, NISO RP-25-201X-3, one output of a multi-pronged, multi-phase project that aims to build trust in and adoption of new methods of assessing impact. "The Code of Conduct aims to improve the quality of altmetric data by increasing the transparency of data provision and aggregation as well as ensuring replicability and accuracy of online events used to generate altmetrics..." See http://www.niso.org/topics/tl/altmetrics_initiative/

Contrast to Jeffrey Beall's list of misleading metrics: <https://scholarlyoa.com/other-pages/misleading-metrics/>

Finding Citations to a Researcher's Work

- Not one-stop shopping.
- May need to use multiple tools from multiple disciplines.
 - Web of Science
 - Scopus
 - Google Scholar
 - Other databases, such as PsycINFO...

Amanda

Let's Try...

- Search Web of Science/Web of Knowledge for an author's citations
 - Be aware of author searching convention:
Lastname F* finds variations of names
 - Note that not all journals/citing journals are in WoK
- If you have access, search Scopus for citations
 - Again, not all journals/citing journals are in Scopus

Amanda

Let's Try...

- Set up a Google Scholar profile
 - Head to Google Scholar
 - Log in to your Google Account
 - Set up your profile
 - Search for yourself; add items to your library

Altmetrics Tools

- Aggregate citations and broad measures of impact from around the web
 - Usage, mentions, social media, saved citations
- Enable compiling, sharing, promoting your work
- Implemented at institutional level or for individual researchers

Altmetrics tools can be implemented at either institutional level or individual researcher level

Julia

Institutional level tools

- Altmetric (www.altmetric.com)
 - Tracks social media sites, news outlets, and citation managers (Mendeley, CiteULike)
- Plum Analytics (www.plumanalytics.com)
 - Tracks wide range of usage, mentions, citations
- Both now in DigitalCommons@URI!
 - Example: <http://digitalcommons.uri.edu/gsofacpubs/29/>
- And, view a summary of URI in PlumX:
 - <https://plu.mx/g/samples/uri>

Julia

DC Examples:

Altmetric -

Plum Analytics - 'Blacker Than Death' http://digitalcommons.uri.edu/com_facpubs/35/

Tools for Individual Researchers

- ORCID researcher profiles (<http://orcid.org>)
 - Get a unique researcher identifier
 - Create a profile and bring together your works
 - Integration within publishers and repositories
 - <http://orcid.org/organizations/integrators/current>
- My Research Dashboard - Elsevier (<https://www.myresearchdashboard.com>)
 - Import citations & view download statistics from journal publishers - moving to Mendeley Stats soon

Julia ORCID

Amanda My Research Dashboard

Tools for Individual Researchers

- ImpactStory (<http://impactstory.org>)
 - Create profile, import citations & view altmetrics statistics from many sources
 - Now requires individual paid subscription
 - example: <http://impactstory.org/CarlBoettiger>
- ResearchGate and Academia.edu

Let's Try...

- Register for an ORCID ID
 - <http://orcid.org>
- Set up a Mendeley account
 - <https://www.mendeley.com/>

Amanda

Promoting One's Work

- Deposit articles in Institutional Repositories where available
- Create a SelectedWorks profile page - anyone can create one! (<http://works.bepress.com>)
- Make datasets, computer code, presentation slides, posters, etc. available online
- See our guide at <http://uri.libguides.com/researchimpact>