

Altmetrics for the Information Professional: A Primer

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About Me...

- Librarian/subject specialist for Biology, Chemistry & Forensic Science
- Help people access the content they need, teach, purchase items, create web content, various librarian duties
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Tracking Scholarly Influence

Many venues for communicating scientific findings

- Journals (increasing numbers)
- Conference Proceedings
- Patents
- Open access archives
- Web publishing

Traditional citation metrics quantify primarily journal articles in established publications

Why use citation metrics?

- Citation metrics are used in promotion and tenure decisions
- Prestige and influence
 - Within a field
 - Within an institution
 - Comparison to peer and aspirational institutions
- Vanity
 - Individual and institutional



What are citation metrics?

- Metrics to gauge scholarly impact
- They measure:
 - Quantity of publications (**tweets, blog posts, mentions...**)
 - Quality of publications, how many citations a work receives (**saves, downloads, likes...**)
 - Where the funding comes from
 - Technology transfer, patents, start-ups, etc.

Quantified by alternative metrics = Altmetrics

altmetrics



altmetrics is the creation and study of new metrics based on the Social Web for analyzing, and informing scholarship

Altmetrics: A manifesto

<http://altmetrics.org/manifesto/>

altmetrics

**Measure diverse impacts from
articles, datasets, blog posts, slide shows, etc.**

Beyond citation counts!

Readership

Views

Saves

Downloads

Scholarly (or popular) Buzz

Valid data = Valid metrics

- Accurate attribution is essential!
- Scholarly authors are assigned Scopus Author Identifiers, Web of Science Researcher ID's, etc.
- Scholars can claim and make public their Google Scholar profile
- Scholars can (and should) register for a unique ORCID number

Solution: ORCID

“ORCID is an open, non-profit, community-based effort to create and maintain a registry of unique researcher identifiers and a transparent method of linking research activities and outputs to these identifiers.”

- <http://orcid.org/>



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ORCID

Connecting Research
and Researchers

What *can* be measured?

“Evidence of Use” – <http://impactstory.org>

- # of Tweets
- # of “Saves” in online reference managers
- Scholarly (and popular) blog interest and activity
- Activity in social networking platforms, tools
- And...

Altmetric Tools

track readership & influence

[CiteULike](#) permits users to store, organize and share scholarly papers

[F1000](#) is a subscription-based recommendation service for curated articles in biology and medicine.

[Google Scholar Citations](#) is a service that allows authors to track their publications and influence using Google Scholar metrics.

Altmetric Tools

track readership & influence

[Mendeley](#) is a free reference manager and social network that was recently acquired by Elsevier. Mendeley is described as “one of the world’s largest crowd-sourced research catalogs”

[Zotero](#) is a robust and growing citation management and sharing resource. Collaborators can share libraries of references, etc.

Make Sense of the Diversity of Research Outputs

Use an aggregator!

Harvest data

Automatic updates

Showcase scholarly influence

Put it all together... with Altmetric Aggregators

[ImpactStory](#), aggregates data from research products including articles, datasets, blog posts, PowerPoint presentations and more; free, open source and open access

[Altmetric.com](#) Subscription business solution that collects data about an individual article and supplies this data to publishers who present the info. to readers & authors.

[Plum Analytics](#) commercial product - measures influence using five categories; usage, captures, mentions, social media, and citations. Marketed to libraries.

ImpactStory

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Tell the full story of your research impact.

ImpactStory aggregates [altmetrics](#): diverse impacts from your articles, datasets, blog posts, and more.

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214 items (expand all) [update](#) [json](#) [csv](#) [Tweet](#) 0

of a Host–Microbe Model	highly saved	highly discussed
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el: A Streamlined Genome	highly recommended	highly cited
	viewed	viewed
ntext of a Host–Microbe	highly saved	highly discussed
	viewed	viewed
x volcanii	highly saved	viewed
	viewed	viewed

We track impact across the Web:



antos, Coloma, Summers, Caldwell, Ree, Cannatella (2009) Amazonian Amphibian Diversity is Primarily Derived from Late Miocene Andean Lineages Plos	7223 PLOS html views	2336 PLOS pdf views	501 PMC full- text views	466 PMC unique-ip views	239 PMC pdf views	191 Mendeley readers	114 PMC supp-data views	80 Mendeley readers: students	46 Mendeley readers: developing countries	44 PMC abstract views	3 P fig vi
Smith, Beaulieu, Donoghue (2009) Mega-phylogeny Approach for comparative biology: an alternative Supertree and Supermatrix approaches BMC Evol	9 Mendeley groups	3 PMC citations	3 PubMed Central citations	2 Wikipedia mentions	1						
	130 Mendeley readers	48 Mendeley readers: students	16 CiteULike bookmarks	12 PubMed Central citations	8 Mendeley groups	2 Facebook likes	2 Topsy tweets	1 PubMed Central citations: reviews	1 Wikipedia mentions	Yes F1000 reviewed	

datasets

(2011) Data from: Data archiving is a good Investment Dryad Digital Repository	1470 Dryad package views	158 Dryad total downloads	124 Dryad most downloaded	5 Topsy tweets	1 Delicious bookmarks	1 Mendeley readers					
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ImpactStory

highly saved 101. S. Ekins and **A.J. Williams**, When Pharmaceutical Companies Publish Large Datasets: An
highly cited Abundance Of Riches Or Fool's Gold? Drug Discov. Today. 2010 15(19-20):812-5 [Link](#)

**75th percentile (n≥1)
in citation by public** S. Ekins and **A.J. Williams**, Molecular property patterns and filtering of public datasets of
antimalarial "hits" and drugs, Med. Chem. Commun., 2010, 1, 325-330 [Link](#)

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Induced Liver Injury, Drug Metab. and Disposition, 38:2302-2308 (2010) [Link](#)

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highly cited datasets of antimalarial "hits" and drugs, Med. Chem. Commun., 2010, 1, 325-330 [Link](#)

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highly cited Federici, J. Hale, J. Mancinelli, K. Mirza, M. Moritz, D. Rein, C. Tchakounte, H. Truong and B. Freisen,
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Nature Precedings <<http://dx.doi.org/10.1038/npre.2010.4243.3>> (2010) [Link](#)

Images: blog.impactstory.org, chemconnector.com

Engaging Constituents

- Don't assume anyone knows anything about altmetrics
- Begin by engaging new scholars
- Explain limitations of both traditional citation metrics & altmetrics
- Demonstrate the power of a Google Scholar Profile, institutional profile, and an ImpactStory Profile



Thank you!!

Linda Galloway

Janet Pease

Syracuse University Library



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