What is it and how is it relevant to librarians?

Cross Timbers Library Collaborative
Scholarly Communications & Digital Curation Affinity Group Meeting
Friday, December 13th 2013

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“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.”

- Recommendation #1

San Francisco Declaration on Research Assessment, December 2012

http://am.ascb.org/dora/
OUTLINE FOR TODAY’S TALK

• Traditional Metrics & Their Limitations
• Globalized & Networked Research
  • Altmetrics: What is it?
• Implications of altmetrics for researchers and librarians
  • Limitations of altmetrics
  • Examples of altmetrics
MEASURING IMPACT

- Peer review
- Citation counting
- Journal impact factor

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Meteor Crater Aerial View
"When a measure becomes a target, it ceases to be a good measure."

- Goodhart’s Law


© Douglas Arnold & Kristine Fowler
This circular graph shows collaboration among the 25 nations with the largest science output, as measured in scientific papers that appeared in 2011 in a select group of journals. Not included are collaborations that took place inside each country.

CREDIT: Sven Laqua and Arno Ghelfi, SOURCES: DIGITAL SCIENCE; MARTIN SZOMSZOR
Digital Science (preliminary data)


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Twitter is a scholarly communication medium.

Several studies have presented evidence of scholars using the service to enrich academic conferences as well as cite scholarly literature; as many as \( \frac{1}{3} \) of tweets from scholars contain scholarly content.


Prevalence and use of Twitter among scholars.


© Jason Priem
The impact of a research paper has a flavour. It might be champagne: a titillating discussion piece of the week. Or maybe it is a dark chocolate mainstay of the field. Strawberry: a great methods contribution. Licorice: controversial. Bubblegum: a hit in the classrooms. Low-fat vanilla: not very creamy, but it fills a need.

Heather Piwowar “31 Flavors Of Research Impact Through #Altmetrics”
We have come to see blogging as a variation of open access publishing. Academics can get to print early, share ideas which are still being cooked and stake a claim in part of a conversation without waiting to appear in print. On blogs we can offer commentary on the work of others in a more relaxed - or opinionated - way than we might do in conventional journals, where we will be subjected to the normalising gaze of peer reviewers.

Why do academics blog? It's not for public outreach, research shows.
WHAT IS ALTMETRICS?

How many times an output has been:

- Viewed (Publisher websites, Dryad)
- Downloaded (Slideshare, publisher websites, Dryad)
- Cited (PubMed, CrossRef, Scopus, Wikipedia, DOI, Web of Science)
- Reused/Adapted (Github)
- Shared (Facebook, Twitter)
- Bookmarked (Mendeley, CiteULike, Delicious)
- Commented upon (Twitter, Mendeley, blogs, publisher websites, Wikipedia, Faculty of 1000)

- Creative Commons (CC-BY-NC) slide derived from Stacy Konkiel, E-Science Librarian, Indiana University
  http://hdl.handle.net/2022/14714
## ALTMETRICS

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CHARACTERISTICS OF ALTMETRICS

- Diverse
- Granular
- Fast
  - Uses public APIs to gather data in days or weeks
- Open
  - both the scripts and the algorithms that collect it
- Suited to measuring social reach in online environments

Creative Commons (CC-BY-SA) image courtesy Jason Priem from http://altmetrics.org/manifesto/
IMPLICATIONS OF ALTMETRICS FOR RESEARCHERS

• Offers additional measures of influence

• Can deliver information about impact of the research output itself (not just its venue)
  • On diverse audiences like clinicians, practitioners, and the general public
  • Of influential, but uncited work

• Tracks use of diverse research output
IMPLICATIONS OF ALTMETRICS FOR RESEARCHERS

- As a filter & discovery tool
- Less risk in publishing in experimental formats
- Junior researchers & those in emerging disciplines can still show research impact
- Altmetrics is still a very young field!
WHY IS THIS RELEVANT TO LIBRARIANS?

• Supports our role as scholarly communications specialists & communication partners with researchers
  • Moving towards a more integral role in research process
  • Helping faculty understand their own impact

• Altmetrics may be integrated into the IR

• Additional information to make collection management and acquisitions decisions

• Fulfills learning support/information literacy function
• How susceptible are altmetrics to gaming?
• How do we determine the motives of users engaging in the social activities that altmetrics measures?
  • Otherwise stated: How do we get at the qualitative understanding underlying the quantitative measurements?
• How do we account for the ephemeral nature of social media platforms, many of which quickly rise to prominence and fade away into disuse?
• How do altmetrics indicators relate/correlate?
• How do altmetrics work with disciplines that do not publish articles?
  • Humanities and other disciplines that communicate primarily via book publication
  • Applied scientists doing translational research
ESPECIALLY USEFUL REFERENCES

Articles:


Video:
Konkiel, Stacy: [OCLC Innovations in Libraries 2012 Altmetrics App Review](http://www.oclc.org/)


See a longer list of scholarly references used for this presentation at [http://www.citeulike.org/user/ciakov/altmetrics](http://www.citeulike.org/user/ciakov/altmetrics)

And bookmarked list of blogs & websites at [https://delicious.com/ciakov/altmetrics](https://delicious.com/ciakov/altmetrics)
EXAMPLES OF ALTMETRICS

http://president-icinghower.tumblr.com/

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QUESTIONS?