tools to manage and assess scholarship: altmetrics & Creative Commons

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learning objectives

+ Understanding of history, development, and potential application of altmetrics and Creative Commons

+ Familiarity with different altmetrics tools & CC licenses and their application and usefulness
the challenge: what is it we’re trying to measure?

What is the impact of the research?
Is it making a scholarly impact?
Is it contributing to the public good?
   [And what does it mean to do so? Policy & practice?]
Who is reading it?
Who is interpreting and commenting on it?
What is the quality of the research?
Who thinks it’s valuable and/or valid?
Who thinks it’s hogwash?
Is it broadly valuable? Is it a game changer? Is it part of the canon?
How does the discipline affect the range/shape of impact?
bibliometrics: citation-based metrics

Author-level:
+ H-Index
+ i10-index

Item-level:
+ Citation impact

Journal-level:
+ Eigenfactor
+ Impact factor
what’s wrong with the impact factor?

"The impact factor data ... have a strong influence on the scientific community, affecting decisions on where to publish, whom to promote or hire, the success of grant applications, and even salary bonuses. Yet, members of the community seem to have little understanding of how impact factors are determined, and, to our knowledge, no one has independently audited the underlying data to validate their reliability."

-Mike Rossner, Heather Van Epps, Emma Hill, “Show me the data,” (2007) [Research cited in altmetrics manifesto]
Recommendations for funding agencies, institutions, publishers, researchers, & institutions that provide metrics.

Themes:

Includes: recommendations that metrics be contextualized with variety of journal-level measures, that article-level metrics be made available, that researchers “Use a range of article metrics and indicators on personal/supporting statements, as evidence of the impact of individual published articles and other research outputs”

Research Excellence Framework in the UK (http://blogs.bmj.com/bmj/2013/05/07/richard-smith-the-irrationality-of-the-ref/)
+ Monolithic
+ Mysterious
+ Misapplied

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altmetrics manifesto: vision

In growing numbers, scholars are moving their everyday work to the web. Online reference managers Zotero and Mendeley each claim to store over 40 million articles (making them substantially larger than PubMed); as many as a third of scholars are on Twitter, and a growing number tend scholarly blogs.

These new forms reflect and transmit scholarly impact: that dog-eared (but uncited) article that used to live on a shelf now lives in Mendeley, CiteULike, or Zotero—where we can see and count it. That hallway conversation about a recent finding has moved to blogs and social networks—now, we can listen in. The local genomics dataset has moved to an online repository—now, we can track it. This diverse group of activities forms a composite trace of impact far richer than any available before. We call the elements of this trace altmetrics.

- altmetrics manifesto
altmetrics manifesto: critique

+ We rely on filters to make sense of the scholarly literature, but the narrow, traditional filters are being swamped. However, the growth of new, online scholarly tools allows us to make new filters; these altmetrics reflect the broad, rapid impact of scholarship in this burgeoning ecosystem.

+ Three main traditional filters as: peer review; citation counts; JIF.

+ peer review = “slow, encourages conventionality, and fails to hold reviewers accountable. ... fails to limit the volume of research.”

+ citation counting = “useful, but not sufficient ... slow ... narrow ... influential work may remain uncited ... neglect impact outside of the academy, and also ignore the context and reasons for citation.”

+ JIF = “incorrectly used to assess the impact of individual articles ... trade secret ... significant gaming is relatively easy.”

Core issues: metrics are:
+ slow
+ insufficiently granular
+ opaque
+ neutral “flavor” of citation
+ closed
+ neglectful of impact beyond the academy
+ tied to traditional publication products, not taking new diversity of output (dataset, website, blog) into account
altmetrics

+ altmetrics = alternative metrics
+ based on the Social Web
+ crowdsourced peer review
+ sometimes seen as subset of webometrics

  + + usage, captures, mentions, social media, citations + +
are you altmetrics?

- analytics
- article-level metrics
- impact factor
- citation count
- # page views
- # twitter mentions
- Hirsch index
analytics in the libraries
who’s using altmetrics?

Collecting:
+ Altmetric
+ ImpactStory
+ Plum Analytics
+ ScienceCard
+ PLoS
+ Mendeley
+ SlideShare
+ Wikipedia
+ Figshare
+ CiteULike
+ Facebook

Publishing:
+ PLoS
+ BioMed Central
+ The Rockefeller University Press
+ Sage Open
+ mBio
+ PeerJ
+ Primo

h/t to Richard Cave
impact “flavors”

Research that looks into clustering of altmetrics:

+ Read and cited

+ Read, saved, and shared

+ Popular hit

+ Expert pick

+ Not picked up by metrics

tracking content in real time
altmetrics v./>/</+/ bibliometrics

“So-called ‘alternative metrics’ or ‘altmetrics’ build on information from social media use, and could be employed side-by-side with citations—one tracking formal, acknowledged influence, and the [other] tracking the unintentional and informal ‘scientific street cred.’ Altmetrics could deliver information about impact on diverse audiences like clinicians, practitioners, and the general public, as well as help to track the use of diverse research products like datasets, software, and blog posts. The future, then, could see altmetrics and traditional bibliometrics presented together as complementary tools presenting a nuanced, multidimensional view of multiple research impacts as multiple time scales.”


Image h/t: altmetrics manifesto
obstacles

+ open (and shifting) availability of these metrics
+ shifting interpretation of these metrics ("in their infancy")
+ disambiguation (versions, authors)
+ lack of metrics for some items (book chapters)
+ distrust from the academic community [Binfield: academic community thinks they understand, trust the impact factor; is this shifting with DORA?]

+ “much of the data collected at the moment indicates the attention paid to rather than the quality of different scholarly works...”
  -Jean Liu and Euan Adie (Altmetric)
altmetrics + CC

Open Science / Open Access / Open Data / Open Labs / Citizen Scientists

+ implicit connection to OA movement

+ CC-Kiwi clip
Creative Commons

Three “Layers” Of Licenses

Images and text from CC website (http://creativecommons.org/licenses/
beyond CC

Getting it Right on Rights: Simplifying, Harmonizing, and Maximizing the Openness of Rights in Digital Libraries around the World

Large-scale collections like the Digital Public Library of America, Europeana, Trove, and DigitalNZ have enriched the free web by making openly available tens of millions of items from libraries, archives, museums, and cultural heritage sites from their respective countries or continents. This burgeoning public commons is

Open Database License (ODbL) v1.0
Open Data Commons Attribution License (ODC-By) v1.0

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form into groups of 3-4

+ Test Creative Commons license selection
+ Adding metrics to your CV
+ Build profiles in ImpactStory
+ PLoS metrics assessment

Each group: elect a lightning-talk representative to give a 3-5 minute spiel about what you turned up
still interested?

NISO recently released a draft of its Altmetrics Standards Project White Paper and is looking for feedback. Check it out.
sources!

- Creative Commons, “Wiki: Frequently asked questions about data and CC licenses,” wiki.creativecommons.org/Data
- Creative Commons, “Wiki: Frequently Asked Questions,” wiki.creativecommons.org/FAQ
- San Francisco Declaration on Research Assessment: Putting science into the assessment of research (December 2012), http://am.ascb.org/dora/files/SFDeclarationFINAL.pdf