IMPACT, ATTENTION, INFLUENCE?
POTENTIAL USE OF ALTMETRICS IN ACADEMIC LIBRARIES

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OLA Super Conference, January 28, 2016
AGENDA

1. Understand the basics of altmetric data
2. Be familiar with sources of altmetric data & how to find it
3. Know how authors can use this data in their workflow
4. Be aware of how academic librarians can support altmetric data needs
"That hallway conversation about a recent finding has moved to blogs and social networks"

(Priem, Taraborelli, Groth, Neylon, 2010)
A DEFINITION

“The most widely used term to describe alternative assessment metrics. Coined by Jason Priem in 2010, the term usually describes metrics that are alternative to the established citation counts and usage stats—and/or metrics about alternative research outputs, as opposed to journal articles.”

(2014 NISO Alternative Metrics Initiative Phase 1 White Paper)
Compare

altmetrics
Search term

+ Add term

Interest over time


News headlines
Forecast

UNIVERSITY OF WATERLOO
WHAT DOES IT LOOK LIKE?

Established metrics

• Total publications
• Total citations
• Average/mean number of citations
• Journal impact factor

Alternate metrics

• Tweets about research
• Facebook posts
• News mentions
• Blog posts
• Wikipedia mentions
• Attention to clinical trial study records

In between: Usage Statistics
ADVANTAGES

- Elements of societal impact
- Complements traditional metrics
- Offers speed & discoverability
- Open data advantage
DISADVANTAGES

- No standard definition
- Is not normalized
- Time-dependent nature
- Known tracking issues
Avocados Can Fight Cancer, New Study Shows

TIME Magazine, 16 Jun 2015
Molecules derived from avocados target the stem cells of acute myeloid leukemia (AML)

SPME Research Group

@SPMEUW

Last news: #SPME in cancer research: Targeting Mitochondria with Avocatin B Induces Selective Leukemia Cell Death http://t.co/WuammukzfZ

18 Jun 2015

CancerQuest

June 17 -

Avocados are not only delicious and nutritious, but may also fight cancer!
A research team at the University of Waterloo found a fatty acid in avocados (called avocatin B) that targets leukemia stem cells, the cells that allow leukemia to develop into a dangerous blood cancer.
Specifically, avocatin B was shown to work against acute myeloid leukemia (AML) cells. AML often progresses quickly and is difficult to treat. The drug kills AML stem cells, but does not harm normal cells.
The team of researchers, lead by Professor Paul Spagnuolo, is ecstatic about their finding because there are very few treatments that target leukemia stem cells. The team plans to move the treatment into clinical trials soon.

Hopefully, the new discovery can significantly improve the outlook for AML patients in the near future! The use of avocados (a personal favorite) as a new cancer treatment is a very exciting development! The work shows the importance of looking at foods as sources of non-toxic cancer treatment (and prevention) agents.

Learn more about drug discovery: http://www.cancerquest.org/introduction-to-drugs.html

News article: https://uwaterloo.ca/.../avocados-may-hold-answer-beating-leu...

Research article: http://cancerres.aacrjournals.org/content/75/12/2478

Picture: https://commons.wikimedia.org/wiki/File:Avocado_open.jpg...
#cancertreatment #nutraceuticals #cancer #cancerquest #avocados #leukemia #fightcancer #drugdiscovery

CCSRI

@CCSresearch

Dr Paul Spagnuolo @UWPharmacy shows avocado-derived molecule selectively kills leukemia cells in Cancer Res: http://t.co/2y9UBiMXqn

16 Jun 2015
FINDING ARTICLE-LEVEL DATA

Geared to Individual Use

- Free resources
  - Journal websites
  - Altmetric it! Bookmarklet
- Library Subscription
  - Scopus
- Individual Subscription
  - Impact Story

Geared to Institutional Use

- Subscription resources
  - Altmetric for Institutions
  - Plum Analytics
The biological impacts of the Fukushima nuclear accident on the pale grass blue butterfly

Atsuki Hiyama, Chiyo Nohara, Seira Kinjo, Wataru Taira, Shinichi Gima, Akira Tanahara & Joji M. Otaki

Scientific Reports 2, Article number: 570 (2012) | doi:10.1038/srep00570
Last updated: 17 July 2015 17:42:31 EDT

Total citations

25 Web of Science
20 CrossRef
18 Scopus

Online attention

Altmetric score (what's this?)
Tweeted by 2905
On 155 Facebook pages
Mentioned in 31 Google+ posts
Picked up by 18 news outlets
9 Reddit

View more
METHODODOLOGY

Applying systematic review search methods to the grey literature: a case study examining guidelines for school-based breakfast programs in Canada

Katelyn Godin, Jackie Stapleton, Sharon I. Kirkpatrick, Rhona M. Hanning and Scott T. Leatherdale

Received: 5 August 2015 | Accepted: 30 September 2015 | Published: 22 October 2015

Abstract

Background
Grey literature is an important source of information for large-scale review syntheses. However, there are many characteristics of grey literature that make it difficult to search systematically. Further, there is no ‘gold standard’ for rigorous systematic grey literature search methods and few resources on how to conduct this type of search. This paper describes systematic review search methods that were developed and applied to complete a case study systematic review of grey literature that examined guidelines for school-based breakfast programs in Canada.

Methods
A grey literature search plan was developed to incorporate four different searching strategies: (1) grey literature databases, (2) customized Google search engines, (3) targeted websites, and (4) consultation with contact experts. These complementary strategies were used to minimize the risk of omitting relevant sources. Since abstracts are often
ALTMETRIC IT! BOOKMARKLET
INSTITUTIONAL EXAMPLES

- University of Manchester
- Western University
- University of Pittsburgh
LIBRARIAN ROLE

• Being informed
  » Know the topic & tools
  » Understand connection to author workflow
    • Publication profile, CV or résumé, advancement package, grant application, research proposal

• Sharing knowledge
  » Discuss when there are opportunities
  » Offer examples of good use
  » Highlight mindful use
Has a specific article received any online attention?
Has it been mentioned by any news sites or blogs?
   Has anyone tweeted about it?
   Who else is interested in the topic?
Also, how is the general public interacting with it?
Value to authors

- Early engagement with research
- Identify peers or possible collaborators
- Research translated into practice
- Offers additional data point
- Broad impact of research

Offered by the University of Waterloo.
AVOID SIMPLY COUNTING!


Citations: 4 / Twitter mentions: 21 / Mendeley bookmarks: 91 / Blog mentions: 12

(Duke, 2015)
MINDFUL USE


Paper covered by more than 100 media outlets worldwide, including The Wall Street Journal and The Guardian. Recommended on 12 research blogs, putting it in the 99th percentile of Biology publications published in 2015. Was described as "a breakthrough study on examples" by prominent genetics and evolution researcher Rosie Redfield.

(Duke, 2015)
THE TECHNOLOGY

FOR AUTHORS

- Altmetrics in action: examples and feedback from data-savvy researchers
- Altmetrics in action: applications for researchers
- How I use altmetrics in my research proposals: a researcher’s account
- How to save time finding your “broader impacts” for grant applications
- 23 diverse metrics to use in your next grant application
- Altmetrics in higher education institutions: Three case studies
Mindful use

Snapshot of online attention

Context is everything

Elements of societal impact

Trends

Meaningful data

Telling a story
BASKET OF MEASURES

- Citations
- Altmetrics
- Usage
MINDFUL USE

1. Use altmetrics to complement other bibliometric measures (basket of measures!).

2. Use altmetrics when citations may not be helpful for understanding how a work is gaining attention.

3. Use altmetrics to better understand online attention surrounding a scholarly article, and not a work's full impact.

4. Be aware that altmetric data is not normally peer-reviewed.

5. Do not compare altmetric data across disciplines!
RECOMMENDED RESOURCES

• Altmetrics: A manifesto
• #altmetrics
• Altmetric blog
• Altmetrics for researchers (Duke University)
• Altmetrics research guide (University of Waterloo)
• Meaningful metrics: A 21st century librarian's guide to bibliometrics, altmetrics, and research impact by Robin Chin Roemer and Rachel Borchardt (2015 book)
• NISO Alternative Metrics Initiative Phase 1 White Paper
• Altmetrics in higher education institutions: Three case studies
• Riding the crest of the altmetrics wave: how librarians can help prepare faculty for the next generation of research impact metrics
• Validating online reference managers for scholarly impact measurement
• Do ‘altmetrics’ correlate with citations? Extensive comparison of altmetric indicators with citations from a multidisciplinary perspective
Thank you!

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CITED SOURCES


“Briefly defined, alternative metrics, or altmetrics are indicators of impact and engagement that extend far beyond traditional methods of influence measurement.”

http://www.altmetric.com/blog/altmetrics-in-action-applications-for-researchers/
“The 4 papers describing this work were referred to by news media outlets 24 times; tweeted 13 times worldwide, including tweets from the National Cancer Institute, and commented on 8 times in PubMed Commons.”

“There was considerable media coverage of this project, with 10 articles in national newspapers and 6 other media appearances.”

"Broaching the topic of impact can indeed be an intimidating prospect for librarians, particularly those of us not used to thinking about impact as part of our professional outreach to faculty...

Talking about impact is arguably more about having confidence in one's own working knowledge of impact as it is about finding opportunities to speak with researchers on the subject"

(Roemer & Borchardt, 2015, p. 20-21)