

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

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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



WHY SHOULD WE CARE?

"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)



2010:
Altmetric: A
Manifesto

2011:
Founding of
Altmetric

2012:
Founding of
Plum
Analytics

2011:
altmetrics11
workshop

2011:
Launch of
Altmetric It!
Bookmarklet

2013:
Launch of
the Altmetric
Top 100 List

2013: NISO Alternative
Assessment Initiative

2014: 1:AM
Altmetrics
Conference

2015: Launch of
Scopus Article
Metrics

2015: Launch
of Altmetric
Ambassadors

2013: Launch
of PlumX

2014: Launch of
Altmetric for
Institutions

2015: Launch of
Web of Science
Usage Count Data



Compare Search terms ▾

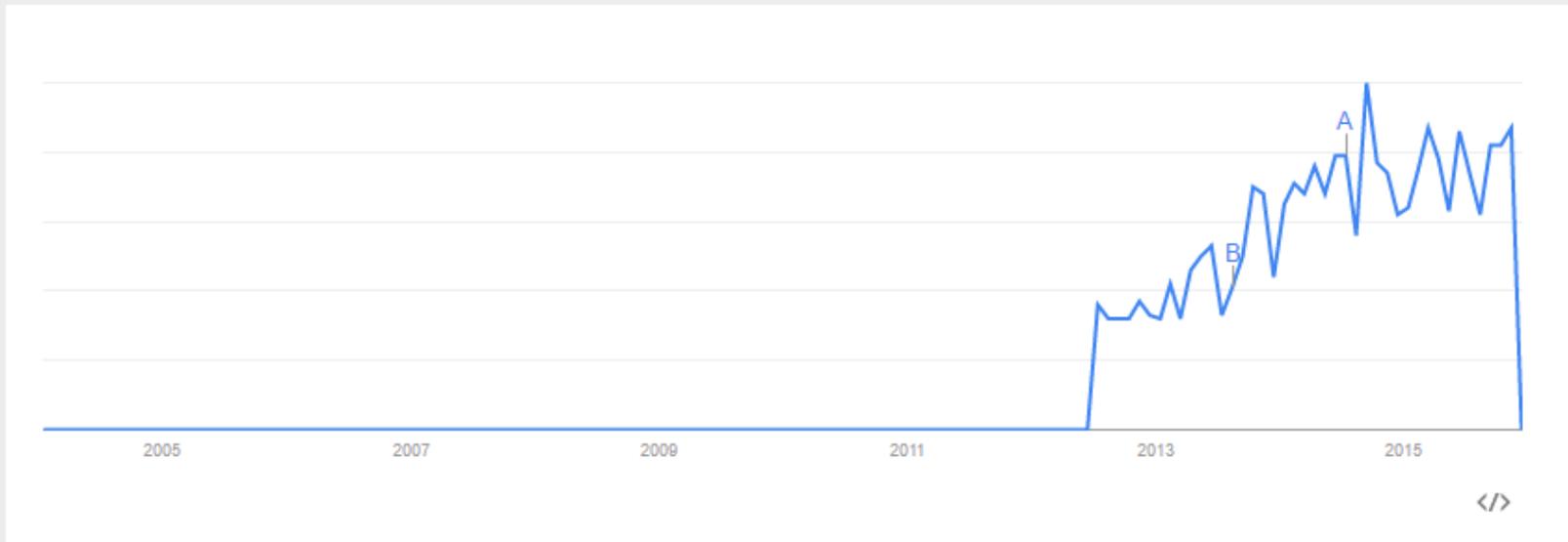
altmetrics

Search term

+ Add term

Interest over time ?

News headlines Forecast ?



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





SPME Research Group

@SPMEUW

326

FOLLOWERS

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

18 Jun 2015

Reply Retweet Favourite



CCSRI

@CCSresearch

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

16 Jun 2015



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)



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



94 Likes 1 Comment 41 Shares

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



JOURNAL WEBSITES

SCIENTIFIC REPORTS

Home | For Authors | For Referees | About Scientific Reports

Article metrics for:  

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	 20	 18
Web of Science	CrossRef	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](#)



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

Systematic Reviews 2015 4:138 | DOI: 10.1186/s13643-015-0125-0 | © Godin et al. 2015

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

[Download PDF](#)[Export citations](#) 

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- [Discussion](#)
- [Conclusions](#)
- [Declarations](#)
- [References](#)

METRICS

Article accesses: 2849



Altmetric score from
Altmetric.com



ALTMETRIC IT! BOOKMARKLET

The screenshot shows the Nature journal website interface. At the top, there is a navigation bar with "nature.com", "Publications A-Z index", and "Access provided to University of Waterloo by Porter Library". A search bar is visible on the right. The main header features the "nature" logo and the tagline "International weekly journal of science". Below this is a menu with categories like "Home", "News & Comment", "Research", etc. The article being viewed is titled "Public health: The toxic truth about sugar" by Robert H. Lustig, Laura A. Schmidt & Claire D. Brindis. The article is from Volume 482, Issue 7383, published on 01 February 2012. On the right side, there are sections for "Associated links" and "Editors' pick".

A red-bordered bookmarklet is overlaid on the page, titled "Bookmarketlet" (with a red arrow pointing to the bookmarklet icon) and "Altmetric it!". The bookmarklet displays a circular chart with the number "746" in the center. Below the chart, it lists the following metrics:

- Picked up by 9 news outlets
- Blogged by 24
- Tweeted by 615
- On 23 Facebook pages
- Mentioned in 16 Google+ posts
- On 1 videos

A "Click for more details" link is provided at the bottom of the bookmarklet. The bookmarklet also includes a "Close x" button in the top right corner.



Study of the Therapeutic Effects of Intercessory Prayer (STEP) in cardiac bypass patients: A multicenter randomized trial of uncertainty and certainty of receiving intercessory prayer [Back to article](#)

(2006) American Heart Journal, 151(4), pp. 934-942

Overview

Citations

Scholarly Activity

Mendeley, CiteULike, etc.

Scholarly Commentary

Blogs, Reviews, Wikipedia, etc.

Mass Media

Social Activity

Twitter, Facebook, etc.

Overview

 [About Snowball Metrics](#)

Citation Count

127

Cited by in Scopus



Field-Weighted Citation Impact

8.74



Citation Benchmarking

96th percentile



Compared to Cardiology and Cardiovascular Medicine articles of the same age and document type



Mendeley



145 Readers

Mass Media



1 Item

Blogs



11 Posts

Wikipedia



4 Mentions

Twitter



900 Tweets

3 Other sources

94 Mentions

Engagement highlights

Scholarly Activity - 147 readers from 2 sources

Downloads and posts in common research tools

 **Mendeley:** 145 Readers
Top Discipline: Medicine
Top Demographic: Researcher
[Save to Mendeley](#)

 **CiteULike:** 2 Saves

Benchmark highlights

Based on 147 readers from 2 sources

Compared to Cardiology and Cardiovascular Medicine articles of same age and document type

All Scholarly Activity - 147  99TH PERCENTILE

[View all Scholarly Activity](#)

Social Activity - 994 mentions from 4 sources

Mentions characterized by rapid, brief engagement on platforms used by the general population, such as Twitter, Facebook, and Google +.

 900 tweets from 516 accounts  9 Reddit posts from 4 accounts
 73 Facebook posts from 71 accounts
 12 Google+ posts from 8 accounts

Benchmark highlights

Based on 994 mentions from 4 sources

Compared to Cardiology and Cardiovascular Medicine articles of same age and document type

All Social Activity - 994  99TH PERCENTILE

[View all Social Activity](#)

Scholarly Commentary - 15 mentions

Mentions in scientific blogs, websites and publications

Mass Media - 1 story from 1 source

Coverage of research output in the mass media

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



CAPTURING ATTENTION

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?





AVOID SIMPLY COUNTING!

Author, A. (2015). "Title." Journal name. doi:10.000/10.100x

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

(Duke, 2015)



MINDFUL USE

Author, A. (2015). "Title." *Journal name*. doi:10.000/10.100x

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

The screenshot shows the Nature journal website interface. At the top, a bookmarklet labeled "Bookmarket" is highlighted with a red box and an arrow. To its right is an "Altmetric it!" button. A search bar and navigation menu are visible. The main article title is "Public health: The toxic truth about sugar" by Robert H. Lustig, Laura A. Schmidt & Claire D. Brindis. A sidebar on the right features an Altmetric widget with a circular chart showing a score of 746. Below the chart, it lists social media and news mentions: "Picked up by 9 news outlets", "Blogged by 24", "Tweeted by 615", "On 23 Facebook pages", "Mentioned in 16 Google+ posts", and "On 1 videos". A "Click for more details" link is provided. Below the widget are sections for "Associated links" and "Editors' pick" with a thumbnail image of astronauts.

Patrick, S. C., Bearhop, S., Bodey, T. W., **Grecian, W. J.**, Hamer, K. C., Lee, J. & Votier, S. C. (2015) Individual seabirds show consistent foraging strategies in response to predictable fisheries discards. *Journal of Avian Biology* 46 (5): 431-440

Web / PDF

Altmetric 80



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](#)



THE LANGUAGE

Mindful use

Snapshot of
online attention

Context is
everything

Elements
of societal
impact

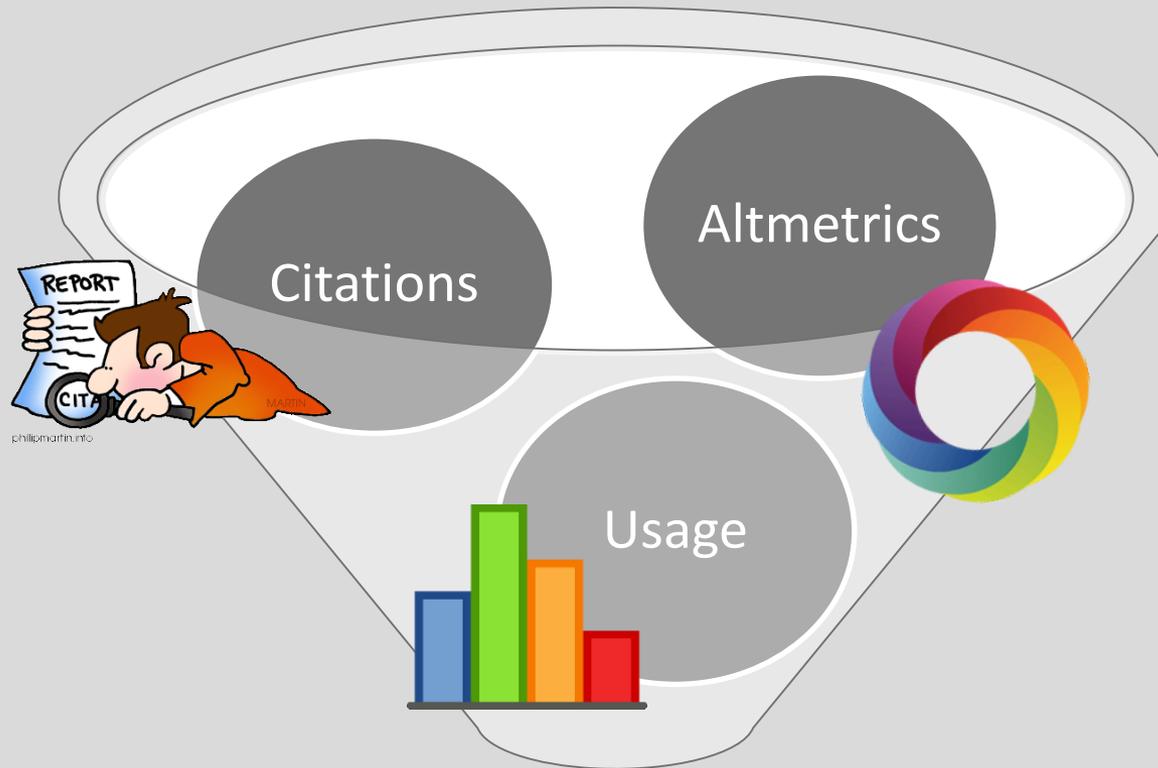
Trends

Meaningful
data

Telling a
story



BASKET OF MEASURES



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

- Duke University Medical Center Library & Archives. (Last updated 2015, December 8). *Altmetrics for researchers*. Retrieved from <http://guides.mclibrary.duke.edu/altmetrics>
- NISO. (2014, June 6). *NISO alternative metrics initiative phase 1 white paper*. Retrieved from http://www.niso.org/apps/group_public/download.php/13809/Altmetrics_project_phase1_white_paper.pdf
- Priem, J., Taraborelli, D., Groth, P., & Neylon, C. (2010). *Altmetrics: A manifesto*. Retrieved from <http://altmetrics.org/manifesto/>

