#### **University of Malaya**

#### From the SelectedWorks of Nader Ale Ebrahim

Fall October 21, 2015

#### A new research impact measuring system

Nader Ale Ebrahim





A new research impact measuring system

Nader Ale Ebrahim, PhD

Visiting Research Fellow

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www.researcherid.com/rid/C-2414-2009 http://scholar.google.com/citations





Available online at: <a href="http://dx.doi.org/10.6084/m9.figshare.1580090">http://dx.doi.org/10.6084/m9.figshare.1580090</a>

# A new research impact measuring system

#### Nader Ale Ebrahim, PhD

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<a href="http://scholar.google.com/rid/C-2414-2009">www.researcherid.com/rid/C-2414-2009</a>
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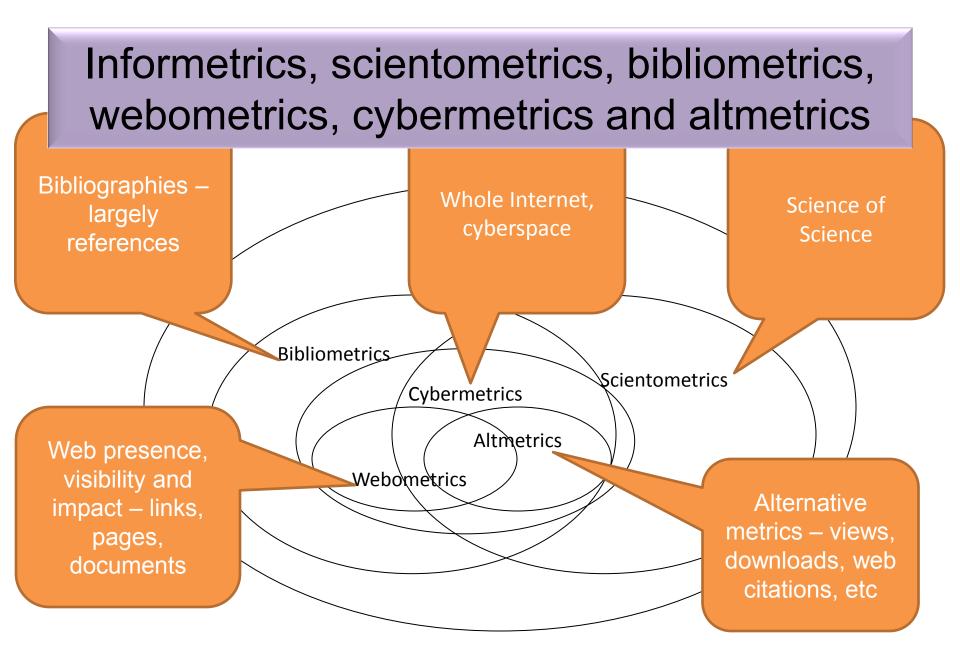
## **Abstract**

#### **Abstract:**

For years, scientists have been trying to measure the quality of scholarly work by the number of times an article is cited in other articles or the impact factor of the journal which published an article. However, citation is a lagging indicator and journal impact factor may be misleading since a Journal's citation count is usually caused by a small number of articles in that journal.

With the rise of the web as the archiving and emerging interaction platform, there is a need for new ways to measure articles and books impact. Altmetrics attempts to use the online activity to measure impact, buzz, word of mouth for scientific information and it includes new ways to measure usage at the citation level. In this workshop, I will explain about application of altmetrics tools such as: Altmetric.com, Impactstory.org, Plumanalytics.com, and PLoS metrics.

**Keywords:** Altmetric, H-index, Improve citations, Research tools, Bibliometrics



Source: Onyancha, Omwoyo Bosire. "Can informetrics shape biomedical research? A case study of the HIV/AIDS research in sub-Saharan Africa 1." Inkanyiso: Journal of Humanities and Social Sciences (2014): 19-65 ader Ale Ebrahim

## What it's like being a researcher

What were your recent publications? Research heading?

Where did you publish them?

Are they Open Access?

Is the data open too?

How did you pay the APC?

Was it well received?

Did it have any impact?

Where is your

Are you doing anything interdisciplinary?

Where is your grant money?

How many grants have you applied for so far?

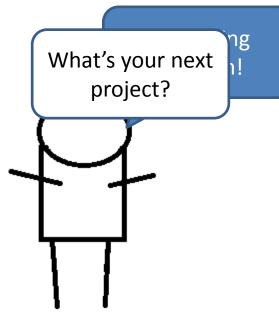
How many grant applications were successful?

How are you going to sustain your grant income profile? What did you do with the grant income you received? How did you cost your overheads?

Does it have an international dimension?

Did it make a spinoff?

Did it have any Impact?



How many students are you teaching? How many students are you supervising?

Does it have any IMPACT?

## What it's like being a researcher



Source: Owen Roberson, Research Information Analyst (2015) Research Information and Analytics at Cambridge: Insight over measurement, Research Information Office, Academic Division



Source: http://altmetrics.org/manifesto/

# Problems with citation-based indicators

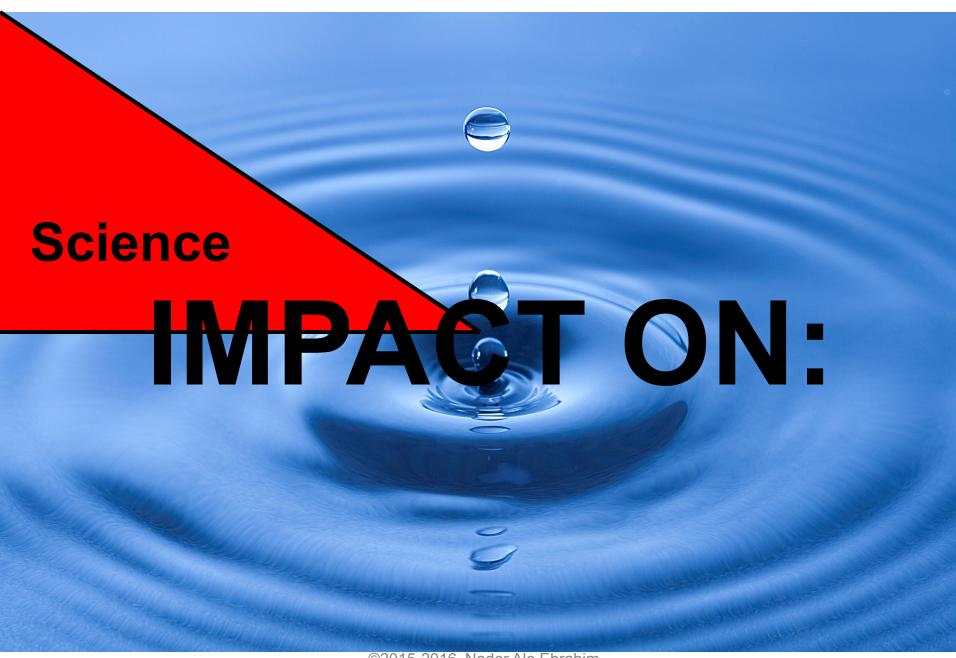


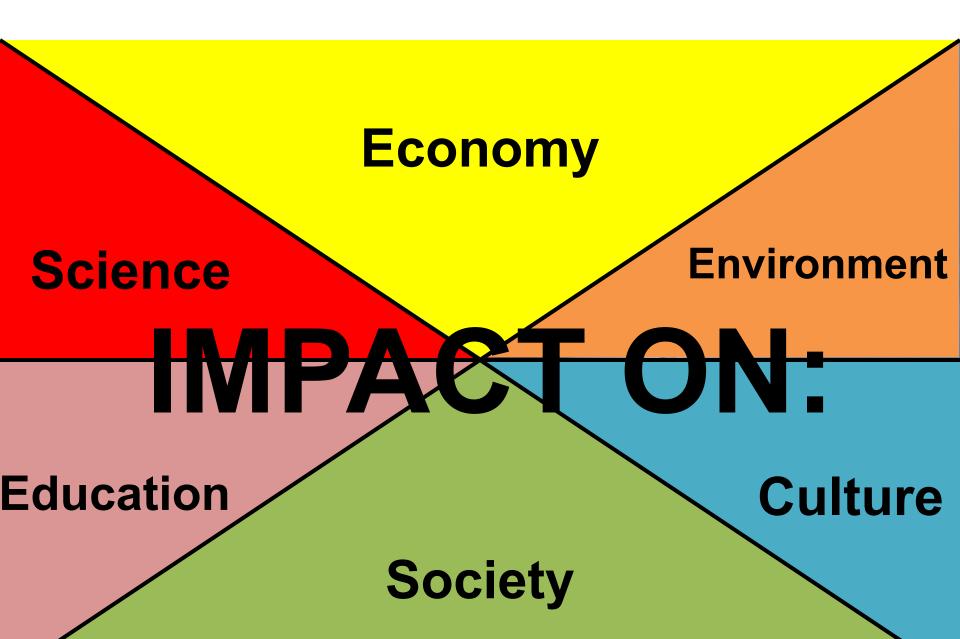
vs.

Problem 1: Time

Problem 2: Journals

Problem 3: Impact





# Altmetrics

**Created by** researchers

Created by the public

# Altmetrics

**Created by** researchers

Indicating future scientific impact?

# Altmetrics

Indicating other types of impact, such as societal impact?

Created by the public

## **Altmetrics Tools**

- Altmetric.com
- Impactstory.org
- Plumanalytics.com
- PLoS metrics
- Usage Count (webofknowledge.com)
- Bookmetrix (<a href="http://www.bookmetrix.com">http://www.bookmetrix.com</a>)
- Article Metrics in Scopus



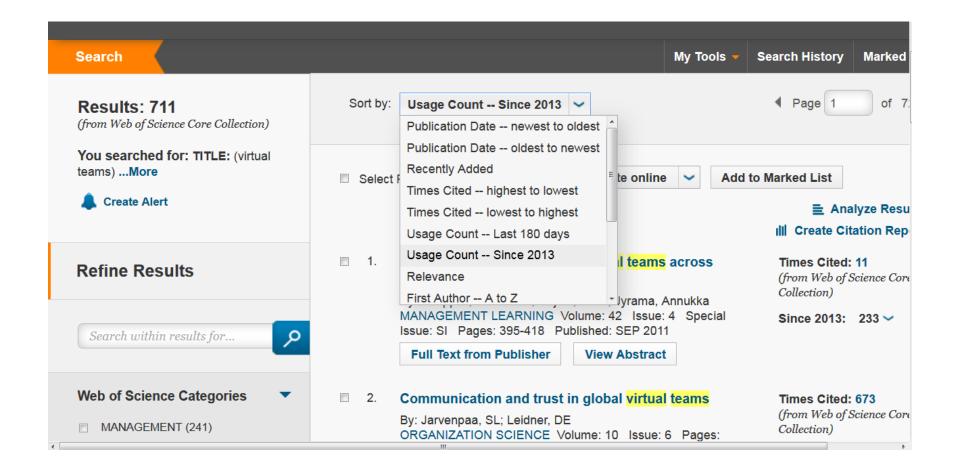




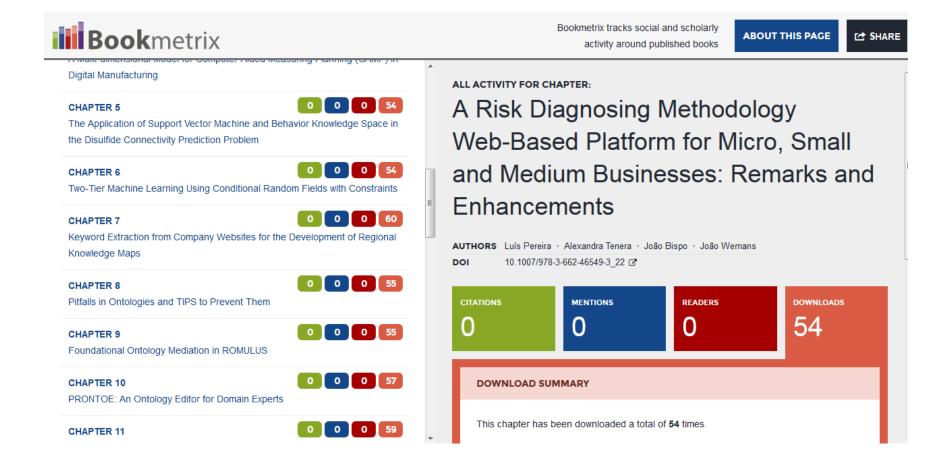




# **Usage Count**

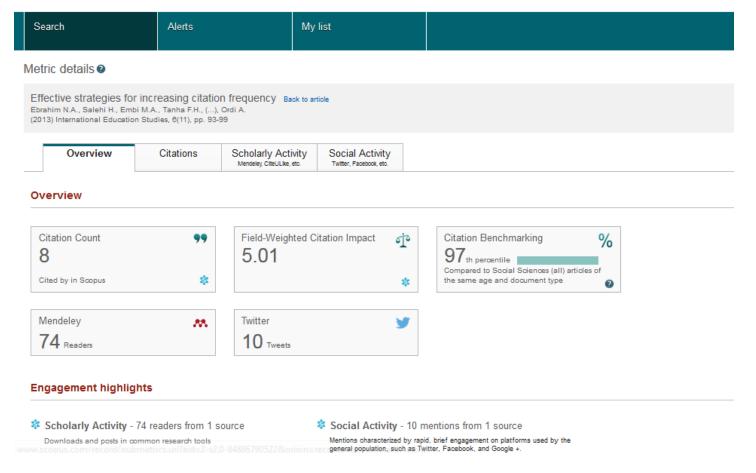


# **Bookmetrix - Springer**

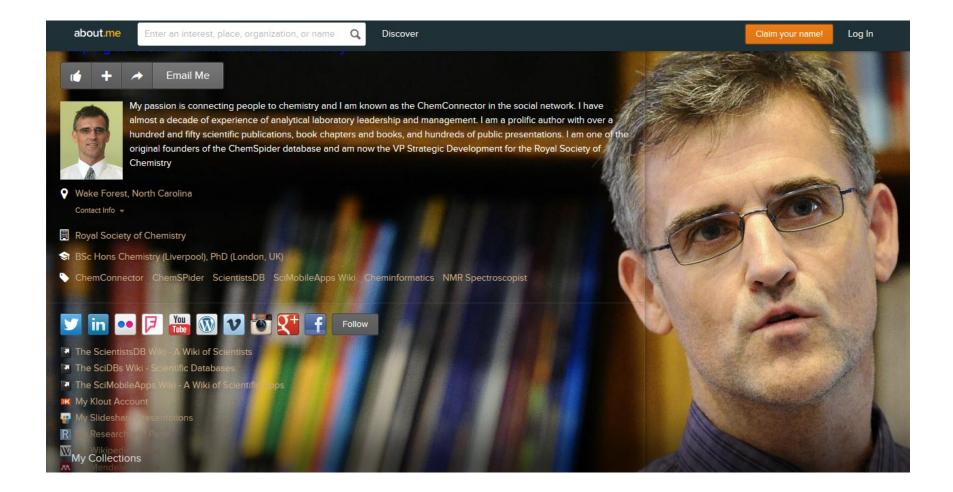


# **Article Metrics in Scopus**

#### Scopus



# **Antony John Williams**



Home / Antony Williams





#### **Antony Williams**

Connections in Chemistry

TinkedIn, & ScientistDB, & ChemConnector Blog,

- 🔰 Twitter, 🚾 about.me, 묈 Google Scholar, 🏈 Microsoft Academic Search,
- Impact Story, W Wikipedia, W SlideShare, YouTube, Mendeley,
- PROskore, 
   ResearchGate, 
   amazon.com, 

  ✓ Vizify, visualize.me,
- Pinterest, (D) ORCID, Vimeo

the company. I have almost... + More

Researcher from:
Sample Profiles / Royal Society of Chemistry

My passion is connecting people to chemistry. Over the past decade I held many jobs and responsibilities including the direction of the development of scientific software applications for spectroscopy and general chemistry, directing marketing efforts, sales and business development collaborations for

**Artifact Summary** 



ÖPLUMX Groups ∨ Sign in Q

Home / Nader Ale Ebrahim



#### Nader Ale Ebrahim

نادر آل ابراهیم

ResearcherID, ORCID, bepress, RePEc,

Copernicus, 
 Diigo, 
 How to write a review paper, 
 ORCID, 
 Twitter,

🔋 The Berkeley Electronic Press™, & Archive, 📊 Resume, 📊 LinkedIn,

Blogspot, & Postach.io, FaceBook, About.me, SCOPUS,

\$\pm\$ ISDT Organizing Committee, \$\pm\$ Ecademy, \$\pm\$ Tumblr, \$\pm\$ Vizify, \$\pm\$ Informatik, \$\pm\$ WiKi,

The Effective Use of "Research Tools" and Resources – Training of Trainers (TOT), ResearcherID, Deerevaluation,

EduBlogs, & Managing Research Candidature, Was Slid Share, Science Wise, Mendeley,

🔋 The academic impact of research: Current and the future citation trends in developing countries, 💾 Delicious,

‡ Practical Guide to Write a PhD Thesis and publish papers based on the thesis, 
‡ MPRA, Research Tools Box, 
☐ CiteULike, 
‡ Zotero,

🚾 ResearchGate, 💆 arxiv, 🕹 Pearl Trees, 🔋 Enhancing Research Visibility and Improving Citations: Publication Marketing Tools, 🐽 Flickr,

🔽 SSRN. 🔽 Social Science Research Network (SSRN). 🕹 Homepage



## **PlumX Metrics**



USAGE (views, downloads)



**CAPTURES** (bookmarks, favorites, readers)



MENTIONS (Wikipedia, comments, blogs)



SOCIAL MEDIA (Fa cebook likes, shares, tweets)

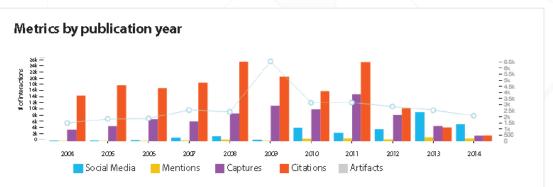


CITATIONS (Scopus, patents)

#### **Analyze**

You can aggregate metrics at any level to help you understand what is happening with your grant-funded research. For example you can see output and metrics by:

- Researcher
- Grant
- Department
- Journal



In this example, it is apparent that citations (red bars) are a lagging indicator; there are substantially fewer citations in the recent years, especially 2013 and 2014. The other categories of metrics help you see what has been going on recently.

On Friday, June 27, 2014 6:07 PM, The Impactstory team < team@impactstory.org > wrote:



#### Your new research impacts this week



Dr. Nader Ale Ebrahim impactstory.org/aleebrahim

#### 1000+ SlideShare views

on Effective virtual teams

This slides attracted 73 new SlideShare views this week, bringing it up to 1003 total. It marks your 8th product to get this many views on SlideShare. Nice work!







# Enhancing Research Visibility and Improving Citations: Publication Marketing ToolsMpws publication marketing tools by nader ale ebrahim 2013 □

(2013) Slideshare.



### 7000+ SlideShare views

on Enhancing Research Visibility and Improving Citations: Publication Marketing ToolsMpws publication marketing tools by nader ale ebrahim 2013

This slides attracted 394 new SlideShare views this week, bringing it up to 7030 total.

It marks your 1st product to get this many views on SlideShare. Nice work!

slides milestone



# Introduction to altmetrics and Altmetric

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altmetric.com





# **Altmetric Ambassador of the Month:**

#### **Nader Ale Ebrahim**

Our Ambassador of the Month for September is Nader Ale Ebrahim, a visiting research fellow at the University of Malaya. He has run over 100 workshops for researchers in Malaysia, and is considered an authority on research promotion practices and metrics tools. Learn more about what Nader has done so far as an Altmetric Ambassador on our blog.



# In this session, we'll cover...

- Introduction to altmetrics
- 2 Altmetric tools
- 3 Altmetrics use cases
- Examples of using altmetrics data
- Questions?

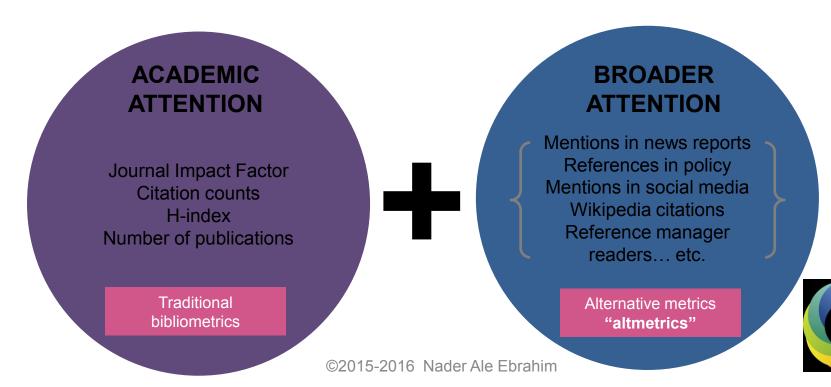


# Part 1: Introduction to Altmetrics



#### What are altmetrics?

- Attention to research outputs in non-traditional sources, e.g. policy documents, news, blogs and social media
- Indicators of research impact
- Help understand how research is being received and used
- Complementary to traditional citation-based analysis



## Why altmetrics?

- Provide a more coherent understanding of research attention
- Understand the broader reach and early impact of research
- Track attention to a broad range of research outputs, including articles, posters, data sets and working papers, etc.
- Help researchers get credit for impact activities





# Advantages of metrics for single research outputs

- Real-time, immediate feedback on attention to scholarly content
- Useful for early career researchers whose work may not have accrued citations
- Showcase attention to a research output beyond academia
- Not biased by an over-arching metric



#### Altmetric in numbers: mentions and shares

Each day, we track
~44,000 new
mentions of research
across sources incl.
social media, news,
and policy docs.

Each week,~50kunique itemsare shared.

That's 1 mention every 2 seconds!

Mentions range in complexity, from quick shares to comprehensive reviews.

18m
mentions of
~3.7m scholarly
outputs



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## What sources does Altmetric track?

#### **News outlets**

- Over 1,300 sites
- · Manually curated list
- Text mining
- Global coverage

# Social media and blogs

- Twitter, Facebook, Google+, Sina Weibo
- Public posts only
- Manually curated list

# Post-publication peer review

- Publons
- PubPeer

# Reference managers

- Mendeley, CiteULike
- Reader counts
- Don't count towards the Altmetric score

#### Other sources

- Wikipedia
- YouTube
- Reddit
- F1000
- Pinterest
- Q&A

#### **Policy documents**

- NICE Evidence
- Intergovernmental Panel on Climate Change
- Many more...

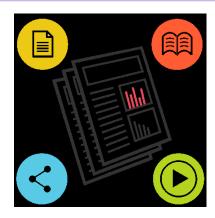
## How does Altmetric aggregate online attention?

Follow a list of sources.

E.g. blogs, news, policy documents, social media.

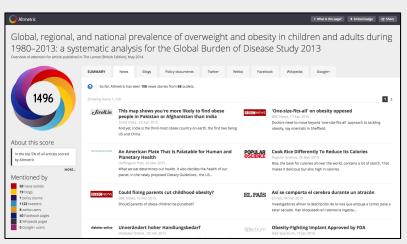
Search for links to papers.

Automatically link searching and text mining.



Collecting attention data

#### Reporting attention data



Collate attention.

Disambiguation of mentioned items across different versions.

Display data in "Altmetric details pages".

All research outputs with mentions have an Altmetric Details Page in our database.

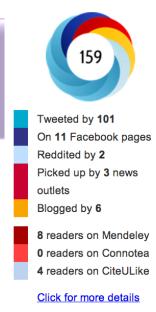
# Part 2: Altmetric Tools



#### The Altmetric Bookmarklet

The free Bookmarklet lets you instantly retrieve altmetrics data for any article.

To install, go to: <a href="http://altmetric.it">http://altmetric.it</a>



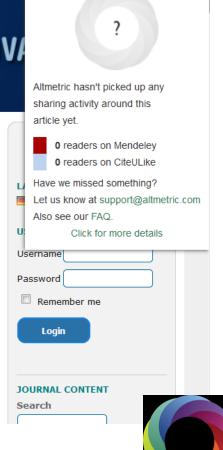


# Virtual R&D Teams: A New Model for Product Development



#### Abstract

Increased global competitions have urged small and medium enterprises (SMEs) to develop new products faster. Virtual research and development (R&D) teams in SMEs can offer a solution to speed up time-to-market of new product development (NPD). However, factors that affect the effectiveness of virtual teams for NPD are still not adequately verified. This paper presents the correlations between virtual R&D team constructs and virtual team effectiveness by developing a "Virtual Research and Development Team" (ViR&DT) model. The items, which may influence the

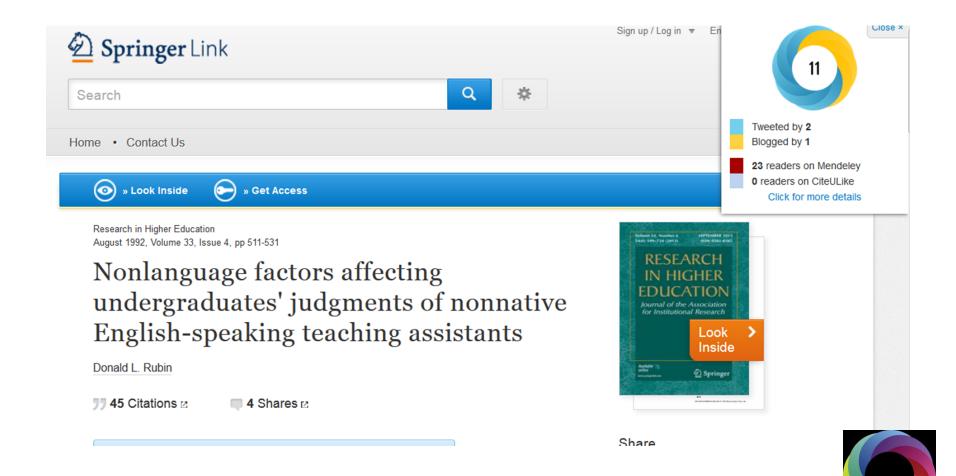


Close ×

# **The Altmetric Bookmarklet**

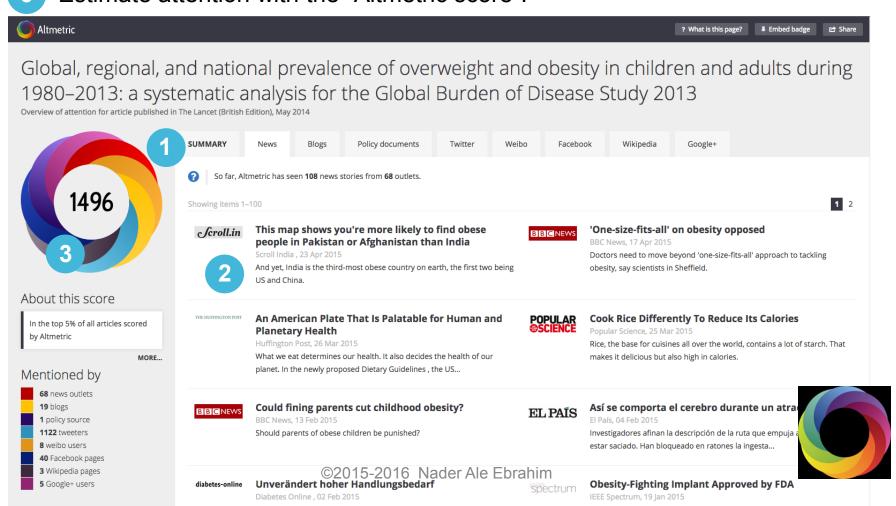


# Nonlanguage factors affecting undergraduates' judgments of nonnative English-speaking teaching assistants



### Altmetric Details Pages

- See all the <u>conversations and mentions</u>.
- Monitor mentions in the mainstream news.
- 3 Estimate attention with the "Altmetric score".



### What is the Altmetric donut?

The Altmetric donut visualizes which are sources discussing an item.

In the Altmetric Explorer, hover the cursor over the donut visualization to see the appropriate legend for an item.

Each source is colour coded:

#### The Colours of the Donut

- Policy documents
- News
- Blogs
- Twitter
- Post-publication peer-reviews
- Facebook
- Sina Weibo
- Wikipedia

- Google+
- LinkedIn
- Reddit
- Faculty1000
  - Q&A (stack overflow)
- Youtube
- Pinterest



## What is the Altmetric score of attention?



The Altmetric score provides an indicator of the attention surrounding a research output.

It represents a weighted approximation of all the attention we've picked up for a research output and is is calculated according to three facets:

Volume	Sources	Authors
The score for an article rises as more people mention it.	Each source category contributes a different base amount to the final score.	How often the author of each mention talks about scholarly articles influences the contribution of the mention.

Read more about the score here: <u>altmetric.com/blog/scoreanddonut/</u>



# What can the data tell you?



What type of attention is this research receiving?



Where has this article received the most traction?



Which countries are engaging most with the content?



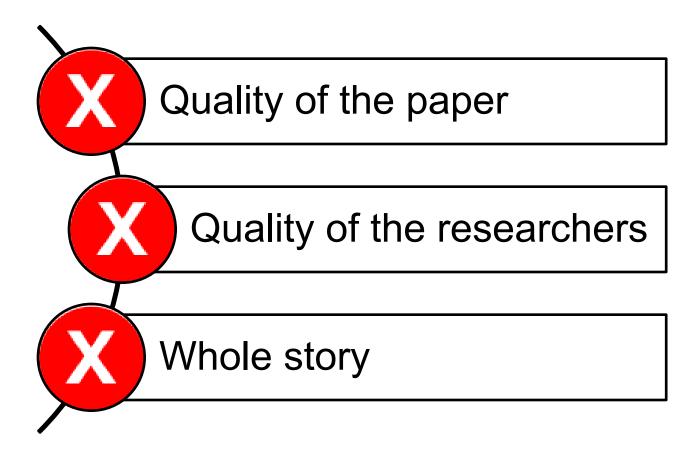
Has this article influenced policy, spurred new research, or engaged a new audience?



Are reactions to this article positive or negative?



# Remember that the numbers don't tell you...



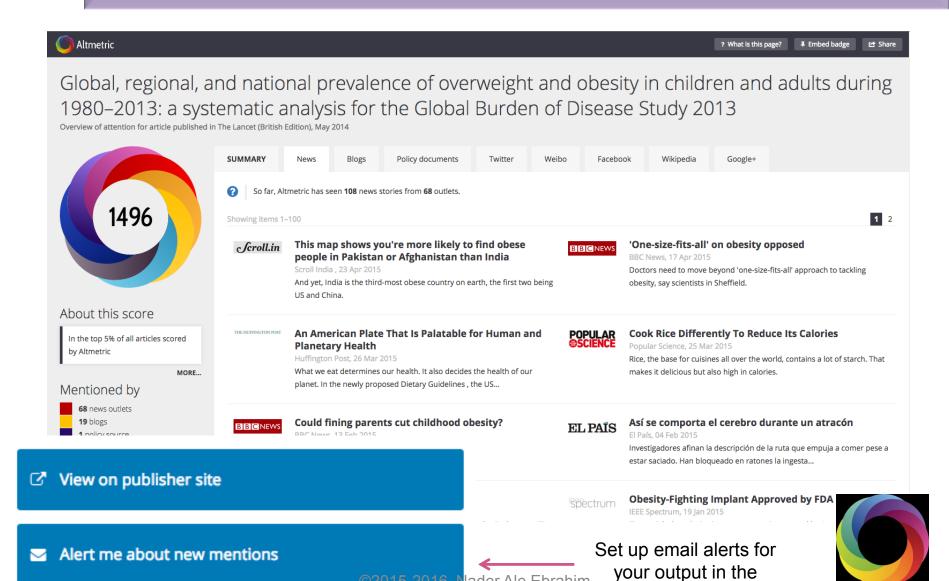


# Part 3: Altmetrics Use Cases





# Uncover conversations about your research



Summary tab



# Discovering policy references

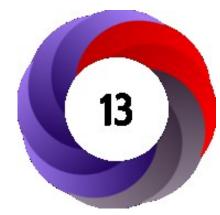
Cochrane Library paper investigated use of probiotics to treat eczema: There is not enough evidence to recommend using probiotics for the treatment of eczema.

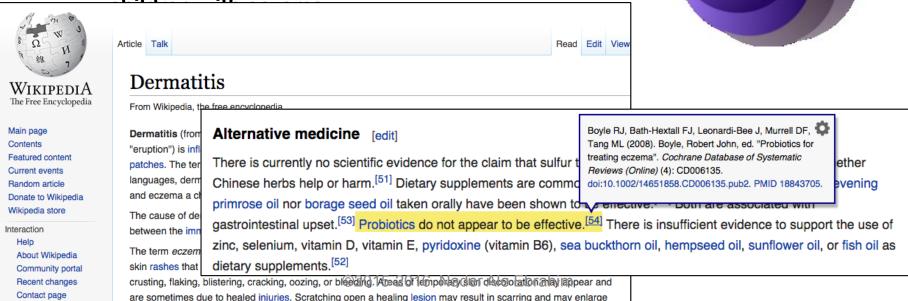


Trusted evidence. Informed decisions. Better health.

The paper has a *relatively* low score of attention but received mentions across policy documents and Wikipedia:

 Royal College of Paediatrics and Child Health -Allergy Care Pathways for Children: core competency for health professionals treating





An electrocorticographic brain interface in an individual with tetraplegia.

Author(s): Wei Wang, Jennifer L. Collinger, Alan D. Degenhart, Elizabeth C. Tyler-Kabara, Andrew B. Schwartz, Daniel W. Moran, Douglas J. Weber, Brian Wodlinger, Ramana K. Vinjamuri, Robin C. Ashmore

PubMedCentral - HTML Views:

PubMedCentral - PDF Views:



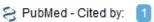
Pitt-EPrint-DScholarship - Downloads:



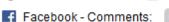
PLoS - HTML Views:



Mendeley - Readers:



CrossRef - Cited by:



Twitter - Tweets:



🌉 Google+ - +1s: 🔳

Facebook - Shares:

Facebook - Likes: 3



HOME

ABOUT

FAO

HELP

The University of Pittsburgh has embedded PlumX widgets in their **D-Scholarship** institutional repository. You can see metrics across their institution at Plu.mX/Pitt. They have also built profiles for researchers across a variety of disciplines. Some sample profiles:

Peter Brusilovsky Rebecca Crowley Michael Pinsky





Puts article in the top 25% of all articles ranked by attention

show more...

#### Mentioned by



1 Facebook users

1 Google+ users

#### Readers on



17 Mendeley 2 CiteULike

#### Track this article

· Get email updates when this article is shared

#### A Comparison between Two Main Academic Literature Collections: Web of Science and Scopus Databases

Twitter Facebook

Google+

Score

Demographics

Help

The Altmetric score is one measure of the quality and quantity of online attention that this article has received. You can read about how Altmetric scores are calculated here.

This article scored 3.75

The context below was calculated when this article was last mentioned on 13th May 2013

#### Compared to all articles in Asian Social Science

So far Altmetric has tracked 29 articles from this journal. They typically receive a little less attention than average, with a mean score of 1.0 vs the global average of 4.2. This article scored the same or higher as 28 of them. It's actually the highest scoring article in this journal that we've seen so far.

#### All articles of a similar age

Older articles will score higher simply because they've had more time to accumulate mentions. To account for age we can compare this score to the 73,149 tracked articles that were published within six weeks on either side of this one in any journal. This article has done well, scoring higher than 78% of its contemporaries.

All articles

More generally, Altmetric has tracked 1,646,693 articles across all journals so far. Compared to these this article has done well and is in the 79th percentile: it's in the top 25% of all articles ever tracked by Altmetric.

In the 99<sub>%ile</sub> Ranks

1st

In the

78<sub>%ile</sub>

In the

79%ile



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Journal Information

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Previous Issues

Current Issue

#### Genome Engineering of Drosophila with the CRISPR RNA-Guided Caso Nuclease

Scott J. Gratz\*, Alexander M. Cummings\*, Jennifer N. Nguyen\*, Danielle C. Hamm<sup>§</sup>, Laura K. Donohue<sup>†</sup>, Melissa M. Harrison<sup>§,\*\*,1</sup>, Jill Wildonger , and Kate M. O'Connor-Giles, ; ;

+ Author Affiliations

Author Notes

→¹Corresponding authors: 6204B Blochemical Sciences Bidg., 440 Henry Mail, Madison WI 53706. E-mail: mharrison3@wisc.edu; 2204B Blochemical Sciences Bidg., 440 Henry Mall, Madison, WI 53706. E-mail: wildonger@wisc.edu; 227D Robert M. Bock Labs, 1525 Linden Dr., Madison, Wi 53706. E-mail: oconnorgiles@wisc.edu

#### Abstract

We have adapted a bacterial CRISPR RNA/Cas9 system to precisely engineer the Drosophila genome and report that Cas9-mediated genomic modifications are efficiently transmitted through the germline. This RNA-guided Cas9 system can be rapidly programmed to generate targeted alleles for probing gene function in Drosophila.

homologous recombination

genome engineering

Drosophila

Received May 9, 2013. Accepted May 23, 2013.

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VVhat's this?

🗏 CiteULike 📑 Delicious 🞢 Digg 👪 Facebook 👫 Google+ 🦃 Reddit 🔎 Technorati

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#### OPEN ACCESS ARTICLE

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#### This Article

Notes

Methods, Technology, and Resources

Early Online May 24, 2013, doi: 10.1534/genetics.113.152710 Genetics August 1, 2013 vol. 194 no. 4 1029-1035

Free via Open Access: OA

» Abstract

OA Full Text

Full Text (PDF)

Supporting Information

All Versions of this Article: genetios.113.162710v1 genetios.113.162710v2 194/4/1029 most recent

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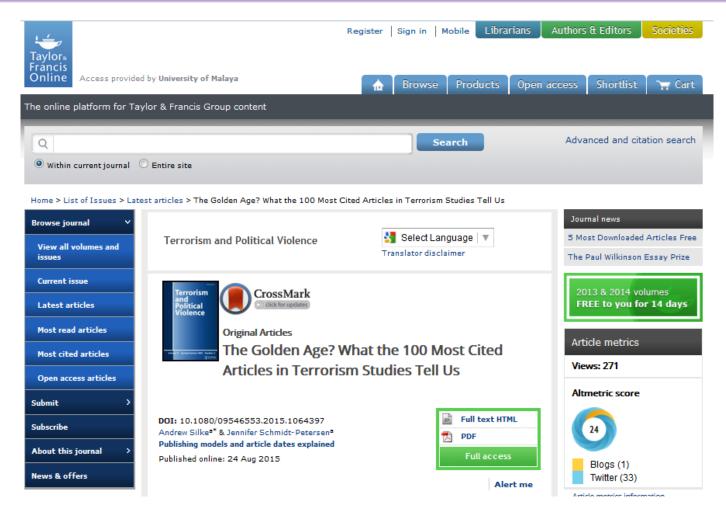








# "The Golden Age? What the 100 Most Cited Articles in Terrorism Studies Tell Us"





# <u>Teaching Elementary Students Who Speak Black English Vernacular to Write in Standard English: Effects of Dialect Transformation Practice</u>

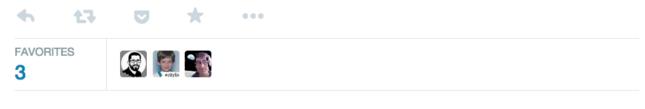




# Discover popular new content to read



Neat study found via @altmetric on the use of personas in academic libraries. Go user research! crl.acrl.org/cgi/content/lo... #citylis



4:47 AM - 10 Nov 2014





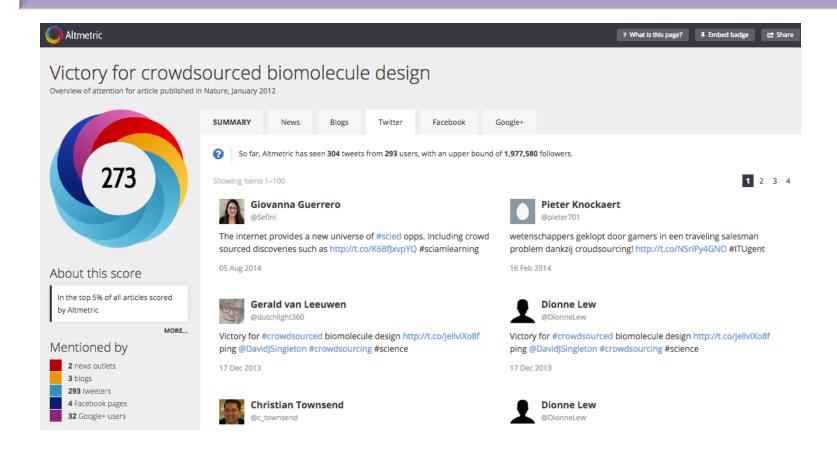
# Use in grant applications and funder reporting







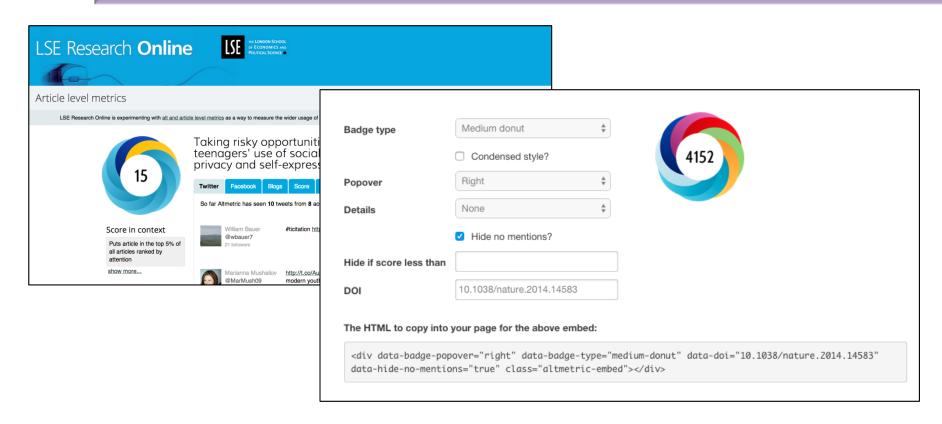
## Find potential collaborators







## Embed badges on your website or CV







# How are institutions using Altmetric?

#### Researchers

- Track attention to your research immediately
- Uncover (unknown) conversations about your research
- Use in grant applications & funder reporting

#### Librarians

- Support researchers in all of the above
- Enhance department liaison activities
- Encourage staff to deposit in your research information system

### Research Administrators

- Integrate data into your existing performance reports
- Identify key impacts across institution (i.e. policy docs)
- Benchmarking (thoughtfully!)

# Marketing Comms.

- Identify research to promote
- Evaluate success of promotion activities
- Identify key researchers





#### RESEARCH SUPPORT UNIT (RSU)

CENTRE FOR RESEARCH SERVICES
RESEARCH MANAGEMENT & INNOVATION COMPLEX (IPPP)
UNIVERSITY OF MALAYA

# Questions?

E-mail: aleebrahim@um.edu.my



Twitter: @aleebrahim



www.researcherid.com/rid/C-2414-2009 http://scholar.google.com/citations

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University of Malaya, Kuala Lumpur, Malaysia
<a href="http://scholar.google.com/citations">www.researcherid.com/rid/C-2414-2009</a>
<a href="http://scholar.google.com/citations">http://scholar.google.com/citations</a>

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