



The confusing world of Altmetrics - A personal opinion, with confusing data

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READ REVIEWS

WRITE A REVIEW

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DATE RECEIVED:
February 15, 2016

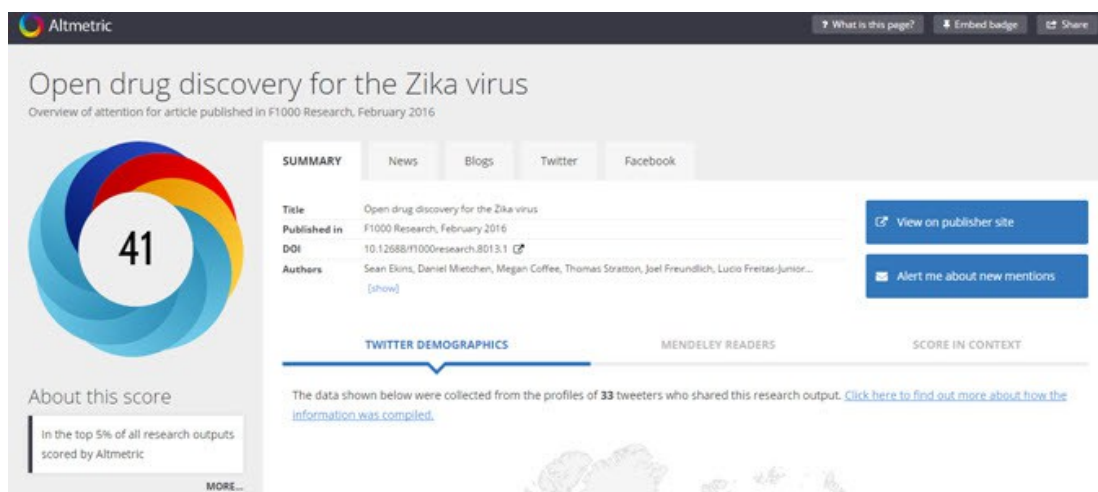
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I am a fan of Altmetrics. At least in concept. But I starting to get very concerned with both the tools used to measure them and what the “numbers” are expected to indicate. We would expect that a high “number” in an Altmetric.com “donut” would be indicative, in some way, of the relative importance or “impact” of that article. One would hope it at least points to how well read the article is, whether the readers like the science and the potential for the article to, for example, move forward understanding or proliferate data into further usage. I am not sure this is true...at least for some of the articles I am involved with.

Let’s take for example the recent [Zika Virus article that Sean Ekins led](#). The F1000 site gives us some stats in regards to Views and Downloads and the Metrics shows the Altmetric stats. I would assume that 48 DOWNLOADERS would have at least some of them reading the article. Some of the VIEWERS are likely to have read it and maybe printed it. For the Altmetric stats the 33 tweets are likely people pointing to the article and because of the way I use Twitter I am going to suggest that Tweets are less indicative of the number of readers of the article. There is a definition on the Altmetric site regarding how [Twitter stats are compiled](#).

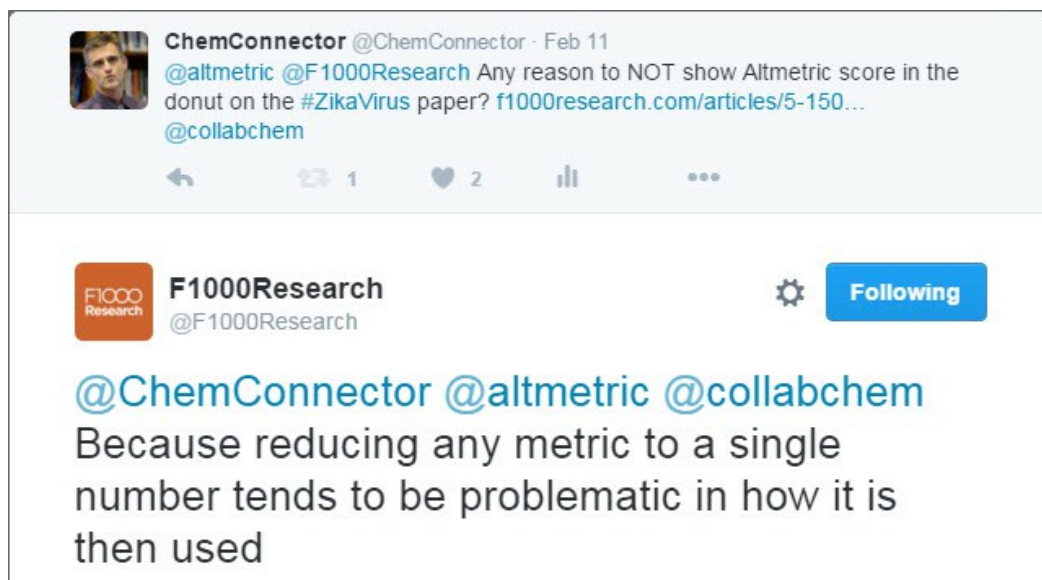
If we use the Altmetric Bookmarklet we can [navigate to the page with a score](#)



The score of “41” is essentially the sum of bloggers, tweets, Facebook posts etc. summarized below (1+1+1+33+1+3+1 for being on Altmetric.com???)



When I asked F1000Research via Twitter why they don't show the “number” I appreciated their answer. I AGREE with their sentiment.



Yesterday I received an email about our Journal of Cheminformatics article “Ambiguity of non-systematic chemical identifiers within and between small-molecule databases”, part of which is shown below.

Dear Dr Williams,

We thought you might be interested to know how many people have read your article:

Ambiguity of non-systematic chemical identifiers within and between small-molecule databases : the launch of Journal of Cheminformatics Saber Akhondi, Sorel Muresan, Antony Williams and Jan Kors
Journal of Cheminformatics, 7:54 (16 Nov 2015)
<http://www.jcheminf.com/content/7/1/54>

Total accesses to this article since publication: 2216

On the actual Journal of Cheminformatics page it says there have been 1444 accesses (not 2216 as cited in the email).

RESEARCH ARTICLE | OPEN ACCESS

Ambiguity of non-systematic chemical identifiers within and between small-molecule databases

Saber A. Akhondi, Sorel Muresan, Antony J. Williams and Jan A. Kors

Journal of Cheminformatics 2015, 7:54 | DOI: 10.1186/s13321-015-0102-6 | © Akhondi et al. 2015
Received: 17 June 2015 | Accepted: 30 October 2015 | Published: 16 November 2015

Abstract

Background

A wide range of chemical compound databases are currently available for pharmaceutical research. To retrieve compound information, including structures, researchers can query these chemical databases using non-systematic identifiers. These are source-dependent identifiers (e.g., brand names, generic names), which are usually assigned to the compound at the point of registration. The correctness of non-systematic identifiers (i.e., whether an identifier matches the associated structure) can only be assessed manually, which is cumbersome, but it is possible to automatically check their ambiguity (i.e., whether an identifier matches more than one structure). In this study we have quantified the ambiguity of non-systematic identifiers within and between eight widely used chemical databases. We also studied the effect of chemical structure standardization on reducing the ambiguity of non-systematic identifiers.

Results

The ambiguity of non-systematic identifiers within databases varied from 0.1 to 15.2% (median 2.5%). Standardization reduced the ambiguity only to a small extent for most databases. A wide range of ambiguity existed for non-systematic identifiers that are shared between databases (17.7–60.2%, median of 40.3%). Removing stereochemistry information provided the largest reduction in ambiguity across databases (median reduction 13.7 percentage points).

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Metrics

Article accesses: 1444

Altmetric score from Altmetric.com: 8

Also the Altmetric score is 8. So somewhere between 1400-2200 accesses (and it is safe to assume some proportion actual read it!). But it has a low Altmetric score of 8. This is versus an Altmetric score of >40 for the Zika Virus paper and a lot less accesses and probably a lot of the altmetrics for that article don't necessarily indicate reads of the article as they are Tweets, many of them from the authors out to the world.

Using PlumX I am extremely disappointed regarding what it reflects about the JChemInf article! Only 10 HTML Views versus the 1400-2200 accesses reported above, and only 7 readers and 1 save! UGH. But 13 Tweets are noted so it seems so I would expect at least an Altmetric.com score of 13 or 14, instead of the 8 marked on the article?

PLUMX Groups Sign in

Ambiguity of non-systematic chemical identifiers within and between small-molecule databases

Citation data: Journal of Cheminformatics, ISSN: 1758-2946, Vol. 7, Issue: 1, Page: 54
Publication Year: 2015
Researchers: Antony J. Williams

USAGE	22	CAPTURES	8	SOCIAL MEDIA	14
HTML Views	10	Readers	7	Tweets	13
Abstract Views	6	Exports-Saves	1	Shares	1
Clicks	6				

I also tried to sign into ImpactStory to check stats but got a "Uh oh, looks like we've got a system error...feel free to let us know, and we'll fix it." message so will report back on that.

Altmetrics should be maturing now to a point where the metrics of reads, accesses, downloads should be fed into some overall metric. I think that reads/accesses/downloads should carry more weight than a Tweet in terms of impact of an article? At least if someone read it, whether they agree with it or not they are MORE aware of the content than if someone simply shared the link to an article, that then didn't get read? The platforms themselves are so desync'ed in terms of the various numbers themselves that we must wonder how are things so badly broken? I would imagine that stats gathered in some way through CrossRef or ORCID will ultimately help this to mature but until then treat them all with a level of suspicion. I believe that AltMetrics will be an important part of helping to define impact for an article. But there is still a long way to go I'm afraid....