



A guide to using Altmetric data in your NIH Biosketch

Many researchers use the NIH Biosketch as a snapshot of their career and the academic reputations they have cultivated over time. A typical biosketch includes:

- Details about their research findings
- Selected publications that highlight their contributions to science
- A list of currently funded grants and selected previous funding
- Citation data to illustrate the scholarly influence of their work

In this guide, we'll demonstrate how you can use Altmetric data to supplement the other metrics you're using to demonstrate the impact, reach, and engagement around your scholarly work.



Illustration by @jean_draws

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1. Introduction to altmetrics and Altmetric data

What are altmetrics?

Altmetrics are data that can explain both the volume and nature of attention that research receives online. Certain kinds of altmetrics are also indicators for potential downstream impact. Altmetrics are updated in real time - the majority of altmetrics data is picked up in the first five to ten days after publication.

Altmetrics can directly measure attention



Altmetrics can measure how many people have shared or engaged with a scholarly output (e.g., an article, a book, a dataset, software, posters, presentations, videos, and virtually anything else). By surfacing the attention being paid to research, altmetrics allow researchers to engage with new communities and discover impact from unexpected places.

Altmetrics can sometimes indicate potential impact

Some types of altmetrics data can signal that research is changing a field of study, the public's health, or having any other number of tangible effects upon larger society. Examples of this include references in public policy documents or commentary from experts and practitioners.



To get at true evidence of impact, you need to dig deeper into the numbers and look at the qualitative data underneath: who's saying what about research, where in the world research is being cited, reused, read, etc, and so on. Altmetric reports provide much of this qualitative information.

Altmetric data can illuminate a lot for grant reviewers

Altmetric is a company that builds tools to help researchers find altmetrics for their research. Altmetric data can illustrate:

Academic engagement with your research

- What are other researchers saying about your work online? Are there critiques/questions/concerns you need to address?
- How many Mendeley readers does your work receive? In what fields?
- Which domain experts have recommended your work on F1000 and why?



Practitioners' interest in your work

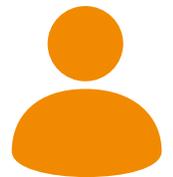
These communities can include other researchers, and also practitioners like doctors who use your research to inform your work, policy makers, and more.

- How much international and domestic news coverage does your research receive? Who is hearing about your work as a result of this news coverage?
- Which NGO, governmental and nonprofit organizations are citing your work in policy documents?
- What communities (e.g., teachers, lawyers, legislators, social workers) are using social media to share your work because of professional relevance?
- Which YouTube channels are highlighting your work in educational videos?



Engagement with your research from the general public

- How is your research being communicated to the general public through domestic and international news outlets?
- Has your work gained traction through social media with the general public? Why?
- Are individuals affected by your work through unexpected life circumstances (e.g., diagnosis of a chronic illness)?



2. How to access Altmetric data for your research

Altmetric data is available for any research output with a persistent identifier that gets mentioned on a website we track. (See our website for more information).

If your research meets those criteria, follow these steps to find your Altmetric data:

1. Drag-and-drop the free [Altmetric bookmarklet](#) into your Chrome, Safari, or Firefox browser toolbar
2. Find your research on the Web (on your journal's website, a repository where it's archived, etc).
3. Click the Altmetric bookmarklet in your browser toolbar.

If your research has been mentioned online, you'll see a pop-up appear in the upper right corner of your browser. This will include the number of mentions your work has received across the Web.

“Click for more details” to view the full-text mentions of your research in the news, public policy, on sites like Twitter and Facebook, and more. Explore the Summary tab on the Altmetric “details page” to understand the context for the attention surrounding your work.

If your research doesn't yet have attention, click the “Alert me about new mentions” button on the Summary tab of the Altmetric details page so you can receive an email alert when it begins to receive attention.

The screenshot shows a JAMA article titled "United States Health Care Reform: Progress to Date and Next Steps" published on August 2, 2016. In the top right corner, an Altmetric pop-up displays a colorful circular icon with the number 8566. A list of mentions is shown to the right of the icon:

- Picked up by 241 news outlets
- Blogged by 49
- Tweeted by 8347
- Mentioned by 2 peer review sites
- On 236 Facebook pages
- Referenced in 5 Wikipedia pages
- Mentioned in 50 Google+ posts
- Reddited by 11
- Highlighted by 1 platform
- Mentioned in 1 Q&A threads
- Click for more details

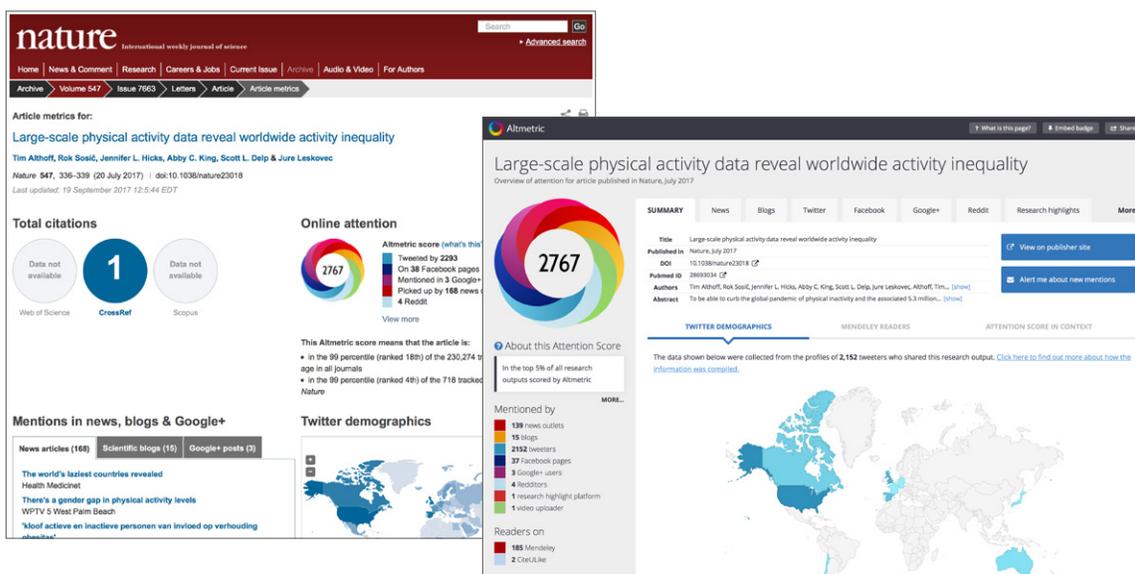
The screenshot shows the Altmetric details page for the same article. The "Summary" tab is selected, displaying a "Twitter Demographics" section with a world map and a list of users who mentioned the article. A hand cursor is shown clicking the "Alert me about new mentions" button at the bottom of the page. A second Altmetric pop-up is shown on the left, identical to the one in the first screenshot, with a hand cursor clicking the "Click for more details" link.

3. Reasons to include Altmetric data in your NIH Biosketch

Citations can take months or years to accrue.
Your grant application is due soon!

Because Altmetric data accrues in the first 5-10 days after publication (and is updated in real time), you can find meaningful engagement data even if you haven't yet been cited.

For example, this *Nature* paper (“Large-scale physical activity data reveal worldwide activity inequality”, published July 2017) has only been cited once as of September 2017, but it's received a great deal of online attention, which can be explored to find specific examples of public influence for use in your grant application.



Funders increasingly want evidence of public impact

Funding agencies and organizations with broader impacts requirements include:

National Science Foundation (US)
National Institutes of Health (US)
Bill & Melinda Gates Foundation
The John Templeton Foundation

National Geographic
Wellcome Trust
Engineering and Physical Sciences
Research Council (UK)

You can showcase the impact for *all* of your research – not just peer-reviewed articles.

Important research outputs like data sets, software, and books are often heavily used by other researchers but not cited.

If your research has a persistent identifier and gets mentioned on a website that Altmetric tracks, we can track its use!

Here's an example of altmetrics for a journal article's supporting data, archived on Figshare:

The screenshot displays the Altmetric interface for a research output. At the top, the Altmetric logo is visible, along with navigation options: "? What is this page?", "Embed badge", and "Share". The main title is "Dreadnoughtus schrani 3D PDF images - Lacovara et al., 2014, A Gigantic, Exceptionally Complete Titanosaurian Sauropod Dinosaur from Southern Patagonia, Argentina, Scientific Reports," with a subtitle "Overview of attention for research output published on figshare, September 2014".

On the left, a circular attention score of 188 is shown. Below it, a section titled "About this Attention Score" indicates that the score is "In the top 5% of all research outputs scored by Altmetric". A "Mentioned by" section lists the following: 4 news outlets, 3 blogs, 169 tweeters, 2 Facebook pages, 5 Google+ users, and 1 video uploader.

The main content area features a "SUMMARY" tab and a table with the following details:

Field	Value
Title	Dreadnoughtus schrani 3D PDF images - Lacovara et al., 2014, A Gigantic, Exceptionally Complete Titanosaurian Sauropod Dinosaur from Southern Patagonia, Argentina, Scientific Reports,
Published on	figshare, September 2014
DOI	10.6084/m9.figshare.1130885
Authors	Kenneth Lacovara, Kenneth, Lacovara

Buttons for "View on publisher site" and "Alert me about new mentions" are located to the right of the table. Below the table, there are two sections: "TWITTER DEMOGRAPHICS" and "ATTENTION SCORE IN CONTEXT". The "TWITTER DEMOGRAPHICS" section includes a map showing the geographic distribution of 169 tweeters who shared the research output, with a link to "Click here to find out more about how the information was compiled."

The data's Altmetric details page shows every mention in the sources Altmetric tracks, including research blogs, the news, and Twitter.

4. How to incorporate altmetrics and other impact evidence into your NIH Biosketch

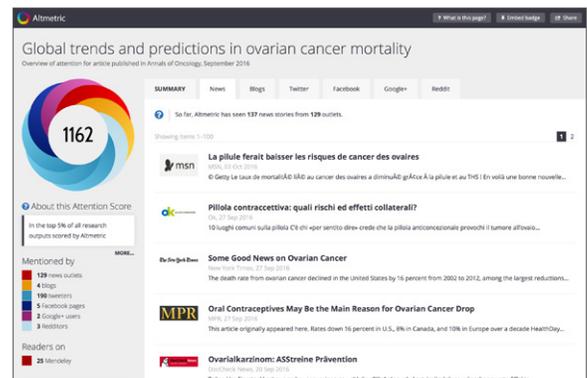
Let's explore some real-life examples of Altmetric data and how it can be used in a NIH Biosketch or other grant applications.

As you know, the personal statement section of your Biosketch should focus on lifetime achievements rather than individual publications. You should use Altmetric data to make a case for the influence of your research overall, rather than listing metrics for your outputs. Here's how to do that.

News sources and specialist publications

Suppose you're an author of the *Annals of Oncology* article, "Global trends and predictions in ovarian cancer mortality", which has received a great deal of attention in the mainstream media.

You have found a lot of international news coverage for the paper on its Altmetric details page, under the News tab – write-ups in over 120 news outlets to date!



You could incorporate this information into the conclusion of your Personal Statement in either of the following ways:

My work has been featured in mainstream news outlets such as PBS, NBC, BBC and The New York Times [source: Altmetric]. This indicates my work has reached beyond academia and into public awareness.

In addition to being highly cited in scholarly manuscripts, my work has extended into global public awareness via write-ups in 129 international news outlets.

Think-tanks, NGOs, and government policy documents

Here's another example. Let's say you authored the *JAMA* article, "Pertussis and pertussis vaccine. Reanalysis of benefits, risks, and costs". You found out that

it's been cited in at least six public policy documents published by the World Health Organization, Centers for Disease Control and Prevention, and the National Academies Press.

You might incorporate this information into the conclusion of your Personal Statement like so:

In addition to being highly cited, my publications in this area have influenced the development of an important clinical guideline on the prevention of pertussis (having been cited in at least six policy documents overall, including those published by the WHO and CDC; source: Altmetric).

Keep in mind that not all policy document citations are alike. Some are cursory citations of research done on a particular topic, while others indicate that your work has been influential in policy development. Moreover, some policy centers have only niche audiences, whereas others have can worldwide impact.

Social media engagement from the public

Research can also play an important role in changing the public's perceptions about important health issues.

For example, the *Circulation* article, "Added Sugars and Cardiovascular Disease Risk in Children," advises that sugar intake be drastically reduced for kids. Given this concrete recommendation, it follows that you would want to showcase just how widely this message has been disseminated amongst the general public.

For this article and your larger body of research related to sugar intake, you might describe social media engagement in your NIH Biosketch:

Our team's research has been shared by over 580 Twitter users worldwide - primarily members of the public - who have a combined reach of 1.2 million Twitter followers (source: Altmetric), indicating greater public awareness of the consequences of sugar on cardiovascular health based on our work.

Adding altmetrics to your grant applications won't guarantee success, but it will make it easier to explain the influence of your work to reviewers.