



Description

The year-end release of Altmetric Top 100 articles annually assembles scholarly articles ranking by online metrics or scores. The scoring system depends on the type of online source mentioning an article that tallies up after event monitoring. Compiled by London based company, Altmetric, the term denotes 'alternative metrics' or 'alt-metrics' taking online citations into consideration. The system is still in development, with questions remaining on the parameters of measurement and the importance of quantifying attention.

Top 10 of the Altmetric Top 100 for 2017

In the 2017 list, the article that draws the [most attention](#) is a nutritional study debunking the role of fat. The open-access study, published in the *Lancet*, demystified low-fat diets suggesting that too much sugar led to weight gain instead. The top online attention-score received is 5876. It indicates the highest number of media and social platforms citing the article. Within this list, the top-10 scoring research articles along with their genre/subject have been mentioned below:

Popular Scientific Research Articles of 2017		Genre/Subject
1.	Associations of fats and carbohydrate intake with cardiovascular disease and mortality in 18 countries from five continents (PURE): a prospective cohort study	Medical & Health Sciences
2.	Work organization and mental health problems in PhD students	Research & Reproducibility
3.	Comparison of Hospital Mortality and Readmission Rates for Medicare Patients Treated by Male vs. Female Physicians	Medical & Health Sciences
4.	Correction of a pathogenic gene mutation in human embryos	Biological Sciences
5.	Gender stereotypes about intellectual ability emerge early and influence children's interests	Studies in Human Society
6.	More than 75 percent decline over 27 years in total flying insect biomass in protected areas	Biological Sciences

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| 7. | Worldwide trends in body-mass index, underweight, overweight, and obesity from 1975 to 2016: a pooled analysis of 2416 population-based measurement studies in 128.9 million children, adolescents, and adults | Medical & Health Sciences |
| 8. | A Feathered Dinosaur Tail with Primitive Plumage Trapped in Mid-Cretaceous Amber | Biological Sciences |
| 9. | Efficacy and effectiveness of an rVSV-vectored vaccine in preventing Ebola virus disease: final results from the Guinea ring vaccination, open-label, cluster-randomised trial (Ebola Ça Suffit!) | Medical & Health Sciences |
| 10. | An extra-uterine system to physiologically support the extreme premature lamb | Biological Sciences |

Top Research Topics of 2017

The diverse list for 2017 includes categorization by clinical studies, psychological analyses, case studies, retrospective studies, paleontology, epidemiology, and bioengineering. It appears that the metrics scored highest on key themes of – scientific research, technology, humanity and environmental science. The fundamental research topics of interest in 2017 included the [following subjects](#) listed in the order of highest citation:

- Medical Science (53)
- Biological Science (17)
- Earth and Environmental Science (9)
- Studies in Human Society (8)

Issues in medical and public health drew the highest level of attention this year. The altmetrics scored highest for this niche amongst media outlets, the public and scientific analyses, followed by the living world. The [focus on prehistoric findings](#) and plastic-eating caterpillars was at an all-time high thereafter among academics, public, and the media. According to the founder of Altmetric, Euan Adie, the list stands testimony to the increasing public interest in academic research. The effort has created a popularity score beyond traditional impact scores, for a fresh approach to integrate academic research online.

Furthermore, a few key trends of interest derived from this list are as follows:

- Articles that scored higher had the strength of international collaborators, including the UK with US and Australia.
- Researchers that contributed the highest to the alternative citation system were from the US, followed by the British.
- Most cited articles per institution belonged to Harvard, the University of Cambridge and University College London.
- Most articles per journal belonged to Nature, The Lancet, and British Medical Journal

Behind the Altmetric Top 100 List

The Altmetric List was compiled by monitoring sites including Wikipedia, social media platforms like Twitter, and other scholarly spaces. Deciding the weighted score begins by monitoring the type of online source that mentions the article, scored as listed below.

Online Article	Points Scored
News	8
Blogs	5
Twitter	1
Facebook	0.25
Sina Weibo	1
Wikipedia	3
Policy Documents (per source)	3
Q&A	0.25
F1000/Publons/Pubpeer	1
Reddit/Pinterest	0.25
Linkedin	0.5
Open Syllabus	1
Google+	1

The validity and completeness of the scoring system, however, remain ambiguous resulting in a [few key questions](#) as detailed. Notably, Twitter posts score 4x a Facebook post, most likely since Twitter is a public platform with higher academic presence. However, the rationale for a Google+ post scoring comparatively higher is questionable given that the site's popularity is waning. Additionally, the scoring system's high-scoring blogs, compared to the low-score for Chinese blogging platform Sina Weibo remain to be justified. Although the underlying principle of the system may depend on demographics, accessibility, and site-visit analytics, the definite basis remains unknown.

Similarly, the social media landscape is rapidly changing with new fronts increasing over the years. With the advent of instant messaging apps and article sharing via them, is the metric system complete without them? Data on LinkedIn and ResearchGate meanwhile remain inaccessible for Altmetric. Demographic accessibility is another factor, given that certain Chinese social media sites remain inaccessible as well.

Additionally, the metric system can expand to include publications such as *Journal Watch* and *Retraction Watch* for completion. Overall, the Altmetric system can refine its analytical process. The stewardship of algorithms depends on "complex socio-technical" systems, as that seen with Twitter. Hence the authenticity of the list remains under question.

What do you think about the Altmetric Top 100 List? Has it covered the correct research topics in the list? Please share your thoughts with us in the comments section below.

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