

Altmetrics: a decade in the making

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October 2020 will mark ten years since the term 'altmetrics' was first coined. Made famous in a visionary manifesto, altmetrics promised a new, better way to understand the reach and influence of scholarly works.



In the context of a community that embraced digital and was increasingly frustrated with the impact factor as a measure of impact, altmetrics were an exciting new idea that promised to change the way we understand research outcomes forever.

So, where are we now? The last ten years have seen a huge growth in the development, use and adoption of altmetrics. Many service providers have emerged, with Altmetric and Plum Analytics the most well-recognised. Publishers, institutions and funders have increasingly adopted altmetrics. The use and nature of altmetric data has changed over time, and still new technologies appear each year.

Yet, many questions remain and the detail of these new metrics is ever-evolving.

Emerging technologies

With the idea of new metrics came demand for new technologies. Where impact factors relied on article-to-article citations, altmetrics required approaches that could capture a broader range of online activity surrounding a journal article, book, dataset, clinical trial or a large range of other output types.

Altmetric was quickly adopted by scholarly publishers keen to provide their authors and readers with greater insight into the influence of their publications. Plum Analytics focused initially on enabling institutions to populate a dashboard to measure the online activity surrounding their work. Using ImpactStory, individual researchers created free profiles to track engagement with their works.

Since then, the breadth and range of altmetrics technologies has changed significantly. New sources of attention have been mined (for example, citations to research in policy or patents). Tools like GrowKudos can now help researchers plan and achieve research impact.

Much like citations, methods for tracking altmetrics data vary among providers. This challenge has led to comparative studies and prompted altmetrics providers to offer better documentation on how they gather data.

Altmetrics providers are working to address other technical challenges, like a bias towards English-language sources and tracking research that does not conform to technical publishing standards. Indeed, newer services such as Crossref Events Data and Cobaltmetrics were developed in response to some of these issues. Crossref provides a free data stream which logs every detail of each altmetric 'event' — so the user can see exactly what changed and when. Cobaltmetrics aims to track links back to primarily social science and humanities research outputs, from anywhere on the web.

Altmetrics have made a difference to many as a solution for finding non-traditional research impact evidence. Early career researchers and those publishing non-article outputs now have the opportunity to tell a story around their research that would not have been visible before. There's also opportunity to effect change in how we think about the value of research.

The rise of responsible metrics

Despite their limitations, altmetrics have done good. In many parts of the world, altmetrics already provide a valuable way to identify where there might be a story of research impact to tell. This is true especially in countries that assess research outcomes in a formal exercise: the REF in the UK, SEP in the Netherlands or ERA in Australia.

The emergence of altmetrics and the ongoing use of the impact factor have prompted much discussion over the last few years. Initiatives like the Metric Tide report, the Metrics Toolkit, and the European Commission's Expert Group on Indicators aim to shape a new approach to research metrics



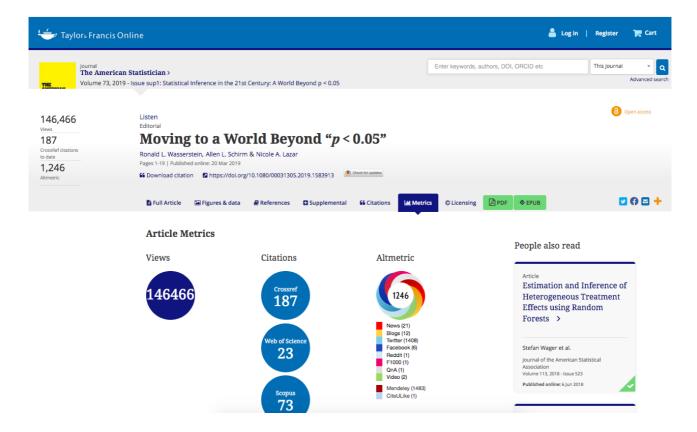
A NISO initiative developed standards for transparency in altmetric data collection, storage and presentation. Many larger altmetrics providers now adhere to these frameworks.

But ensuring the responsible use of metrics cannot be left only to data providers (indeed, some would argue that it shouldn't be at all). This is where librarians and research offices increasingly find themselves offering guidance to their administrators, faculty, and departments.

Through all the debate, one thing is clear: research impact cannot be determined in a number. Numbers at best can be an indicator of influence or societal change. Uncovering true impact will always take a deeper level of investigation, and in many cases, expert peer review.

Adoption and use

Today, publishers worldwide use altmetrics to publicly display their publications' impact and report on it internally. Altmetrics are increasingly adopted by institutions keen to help their researchers strengthen funding applications and find interesting stories to tell about their work. Funders and companies looking to refine their research strategies are exploring altmetrics as well.



Individual researchers use altmetrics to connect with new audiences and showcase their influence. They include media coverage and public policy citations in their tenure applications, refine their own online engagement strategies, and encourage others to share their research with a global audience

Services like Bookmetrix and Altmetric Badges for Books enable book authors to benefit from altmetrics too. Often under-served by traditional citation metrics, these authors can now discover online engagement around their books and chapters: where their work is included in academic reading lists, shared on social media or mentioned in a blog.

The immediateness of altmetrics makes them a powerful tool, not just for reporting on attention, but for developing new connections and shaping future research efforts.

Altmetrics illustrate unique, valuable aspects of research influence that differ from traditional citations. Early scientometric studies found little correlation between the two, and scholars in this field have also begun to investigate how discipline, author location and output type also affect the prevalence of altmetrics for research.

Looking ahead

Like all emerging technologies, altmetrics are not (and likely never will be) a perfect solution to everything we hoped they might do, due to technical challenges and the shifting priorities of the research community.

The role that altmetrics will play in future is unclear but exciting. There are huge opportunities here that new technologies can make possible, in ways that traditional research measurement cannot.

The research community has a vital role to play in how these tools and data develop. Events like the Altmetrics Workshop, the Altmetrics Conference, ISSI and STI provide a platform for debate around what it is we are trying to measure and why. The practical application of these data are being explored in forums such as the Altmetric REF 2021 working group and the LIS-Bibliometrics initiative.

What the future holds for altmetrics is yet to be determined but it'll certainly be an interesting journey!

These views are the author's own and do not necessarily reflect the views of UKSG.





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