Evidence Based Library and Information Practice

Research Methods: Altmetrics

Virginia Wilson
Librarian, Murray Library
University of Saskatchewan
Saskatoon, Saskatchewan, Canada
Email: virginia.wilson@usask.ca

It's no secret that scholarly communication is changing. The internet, the open access movement, the proliferation of institutional repositories, and the use of social networking tools, as well as the questioning of peer review and impact factors, to name just a few things, have altered the scholarly publication landscape. Massive amounts of research content, both full content and citations are available on the internet: the traditional research paper, blogs, academic repositories, online citation managers, and even tweets and Facebook posts. If the accepted ways of publishing are changing, then it makes sense that different ways of measurement should be explored in order to get the complete picture of the impact of the work.

This is where altmetrics comes in and it's exciting stuff!

The Altmetrics Manifesto states that scholars are increasingly moving their work to the internet. "These new forms [citation managers, blogs, other social sharing sites] reflect and transmit scholarly impact: that dog-eared (but uncited) article that used to live on a shelf now lives in Mendeley, CiteULike, or Zotero–where we can see and count it. That hallway conversation about a recent finding has moved to blogs and social networks – now, we can listen in. The local genomics dataset has moved to an online repository – now, we can track it. This diverse group of activities forms a composite trace of

impact far richer than any available before. We call the elements of this trace altmetrics." (http://altmetrics.org/manifesto/)

Based on these alternative metrics, altmetrics is "the creation and study of new metrics based on the Social Web for analyzing, and informing scholarship" (altmetrics.org). What paths do our reactions to a particular article take in the social web? PLoS refers to this new landscape as the "scholarly ecosystem" (http://article-level-metrics.plos.org/alt-metrics/). Altmetrics isn't just about traditional citation-based indicators. Nor is it just about hits; these can be inflated by robot-crawlers and other zealous clickers. So work has been done on finessing use stats and hit count work in order to get a more meaningful measure of online usage in all its variety. As an emerging field of scholarship and development, altmetrics is moving ahead in leaps and bounds. It is becoming common to see journal publishers and repositories implementing tools that will let authors see the impact of their scholarly publications.

And of course there is a role for librarians and information professionals to play in this new field of measurement. While new, the altmetrics field is exploding with new ideas and products. A librarian's expertise in scholarly communication and in finding the resources and data needed for researching scholars can be invaluable to the institution. There is much to learn in this emerging field. I've included a list of resources that can take you further into the realm of altmetrics, and as always, I appreciate comments on this column. You can log in as a reader to the *EBLIP* journal and interact from there.

The Altmetrics Manifesto

- Priem, J., Taraborelli, D., Groth, P. & Neylon, C. (2010), Altmetrics: A manifesto, (v.1.0), 26 October 2010. http://altmetrics.org/manifesto (The comments at the end of the manifesto

are an interesting conversation as the concept of altmetrics develops.)

Articles

- Taraborelli, D. 2008. Soft peer review: Social software and distributed scientific evaluation. Retrieved from http://eprints.ucl.ac.uk/8279/
- Neylon C. & Wu S (2009) Article-level metrics and the evolution of scientific impact. PLoS Biol 7(11): e1000242. doi:10.1371/journal.pbio.1000242 Retrieved from http://www.plosbiology.org/article/info:doi/10.1371/journal.pbio.1000242
- Priem, J. & Hemminger, B.M. (2010). Scientometrics 2.0: Toward new metrics of scholarly impact on the social Web. *First Monday*, *15*(7) http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/viewArticle/2874/2570
- Roemer, R.C. & Borchardt, R. (2012). From bibliometrics to altmetrics: A changing scholarly landscape. *College & Research Libraries News vol. 73 no. 10 596-600* Retrieved from http://crln.acrl.org/content/73/10/596.full

Altmetrics Scholarship

- PLoS Altmeterics Collections http://www.ploscollections.org/article/browseIssue.action?issue=info:doi/10.1371/issue.pcol.v02.i19
- The Altmetrics Group on Mendeley http://www.mendeley.com/groups/586171/altmetrics/ Here you can find more scholarly articles on altmetrics added by Mendeley users.

Products[1]:

- Altmetric It
  http://www.altmetric.com/ They offer open data for individuals, including a free bookmarklet to be used on recent scholarly articles to see how much attention they have received online. There is also an API, free for non-commercial use, used to mash up altmetrics data with other data. The following link is for an interesting blog post from altmetric.org on the free services and APPs they've developed for libraries and institutional repositories: http://altmetric.com/blog/altmetrics-in-academic-libraries-and-institutional-repositories/

- ImpactStory (formerly Total-Impact) http://impactstory.org/ An altmetric aggregator. In terms of pricing, this information is from the website: *We charge to collect metrics; the data is free and open once it's been collected. You let us know to start collecting metrics on something when you* register *it with us. The first 1000 items you register are free. Registering more than 1000 items will have an annual fee to provide sustainability for our nonprofit service (waivers available in some cases); the fee will depend on how many items you'd like to register.*

- Plum Analytics http://www.plumanalytics.com/index.html This company collects impact metrics in five major categories: usage, captures, mentions, social media, and citations. One of the two founders of this service is a librarian. They gather metrics about what they refer to as "artifacts" and these include: articles, book chapters, books, clinical trials, datasets, figures, grants, patents, presentations, source

code, and videos. You can see the metrics they include and where they find them here: http://www.plumanalytics.com/metrics.html

- Altmetric for Scopus http://altmetric.uservoice.com/knowledgebase/articles/83246-altmetric-for-scopus Denise Koufogiannakis explains on her blog that "the altmetric service will capture information from social media sites such as *Twitter* and *Facebook,* mainstream media, and reference managers such as *Mendeley,*to illustrate how scholarly articles are being used beyond academia" (2012).

- PLoS Article-Level-Metrics (ALMs) http://article-level-metrics.plos.org/ Metrics are tracked for every article published by PLoS and the full ALM data set, which is updated monthly as a .csv file, is always freely available online for all PLoS-published articles.

- ScienceCard http://sciencecard.org/ ScienceCard is a web-service that collects article-level metrics using the content from Twitter, Mendeley, PubMed Central, CiteULike, Wikipedia and CrossRef. Other services continue to be added.

References

altmetrics.org. (2010). *Altmetrics.* Retrieved from http://altmetrics.org/about/

Koufogiannakis, D. (2012). Altmetrics for Scopus. Collections information. Retrieved from http://collectionsinfo.blogspot.ca/2012/09/altmetric-for-scopus.html?spref=tw

---

[1] The author is not affiliated with and does not endorse any organization represented here. They are included for information purposes only

and are to be implemented at the user's own discretion.