Old journal, new media

Web 2.0 names a shift that occurred around the turn of the new century in how the internet is used. Prior to that time, websites generally contained information that was viewed passively. Today, websites are more frequently interactive platforms that host user-generated content and conversations.

Much of the younger generation integrate social media (Facebook, Twitter, etc.) into their social, academic, and occupational lives as a matter of fact, while many in the older generations may either see engagement in social media as frivolous or as confronting a set of systems so complex or foreign that understanding how to use them effectively to promote our personal and professional goals presents a problematic barrier.

Most scientists, researchers, and academic publishers at least sense that the use of social media can promote “engagement with, attention to, or consumption of scientific literature”. With the strong current trends in international scholarly communities calling for new and more meaningful—that is, valid—definitions and measures of impact, much attention is being paid to the role of social media with respect to promoting impact (whatever it may be) within the biomedical and healthcare research production and consumption economy.

Some things are clear, some things are confusing. It's clear that social media and metrics associated with its use have assumed a frontal position on the landscape of impact promotion and assessment. A look at an original research article published at the top of the NEJM's website homepage, at the time we write this, prominently features a set of buttons that allows sharing to Facebook, Twitter, and 196 additional information sharing services, as well as a link to information on article level metrics (Fig. 1).²

The metrics section gives information on, most prominently, the number of “page views”, number of times the article has been cited, instances of coverage of the article in the media, and a social media “rank” (Fig. 2).³

What does any or all of this data mean, in this particular case or wherever such statistics are provided by academic journals or information service providers? What does it tell us about the “impact” or value of scientific output? The answers are far from clear, especially to those of us without expertise in scientometrics, bibliometrics, and web analytics.

One recent study analyzed references to all 2016 journal articles published in US dental science journals listed in the Web of Science or PubMed. The researchers found that the statistics on tweets and retweets of the ten most highly tweeted articles in these journals very poorly represent “engagement”: The tweets containing links were mostly generated by one or a few particular accounts, apparently by services who are paid to generate tweets, and by automated programs that tweet and retweet (bots).¹ Such findings confound any simple assessment as to how the true impact of an article or of a journal can be meaningfully boosted by distribution through social media. That's setting aside, for the moment, consideration of what we mean when we say impact.

On the other hand, a 2015 study found that among indexed journals of anesthesiology, there was a correlation between the adoption and use of Twitter accounts by journal publishers and subsequent increases in two outcome variables: journal impact factor and instances of articles receiving citations.⁴ (The authors defined journal impact factor as “Thompson-Reuters Journal Impact Factor”, the problematic nature of which we have discussed in previous editorials.)⁵,⁶

Researchers, publishers, clinicians, and other healthcare research consumers face a bewildering and fast-changing environment with respect to understanding the nature of the impact of scientific and professional produce, with respect to understanding how to increase that impact, whatever it is, with respect to keeping up with the technology and analytical tools involved in measuring it, and with respect to ethical and practical choices as to whether to play the game (and if so, how), or whether to step back from the game, honestly examine our goals and values, and pursue them along a course that is honestly and transparently designed to benefit all of our stakeholders: ourselves as publishers.

2468-824X/© 2017 Taiwan Society of Anesthesiologists. Published by Elsevier Taiwan LLC. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).
and editors, researchers looking to publish their work, the scientific and clinical communities we serve, science and healthcare funders and policymakers, and our healthcare consuming communities.

The latter choice is the hardest. The way forward is not clear. Yet this is our choice, and now we must continue to struggle, usually happily.

We continue to explore and evaluate our options and choices with respect to integrating new media, and social media in particular, into AJA in our next editorial.

Conflict of interest

All authors declare no conflicts of interest.

References
