

We can only dream of tracking how research changes the way practitioners act in the real world... or can we? **Cameron Neylon** (http://blogs.lse.ac.uk/impactofsocialsciences/blog-contributors/#Cameron_Neylon) writes that Twitter can serve as a measure of the impact of researchers on digitally-literate professionals.



The holy grail of research assessment is a means of automatically tracking the way research changes the way practitioners act in the real world. How does new research influence policy? Where has research been applied by start-ups? And have new findings changed the way medical practitioners treat patients? Tracking this kind of research impact is *hard* for a variety of reasons: practitioners don't (generally) write new research papers citing the work they've used; even if they did their work is often several steps removed from the original research making the links harder to identify; and finally researchers themselves are often too removed from the application of the research to be aware of it. Where studies of downstream impact have been done they are generally carefully selected case studies, generating a narrative description. These case studies can be incredibly expensive, and by their nature are unlikely to uncover unexpected applications of research.

In recent talks I have used a specific example of a research article reaching a practitioner community. This is a paper that I discovered will search through the output of the University of Cape Town (<http://www.uct.ac.za/>) on Euan Adie (<https://twitter.com/#!/Stew>)'s Altmetric.com (<http://altmetric.com/>) service. The paper (<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0024256>) deals with domestic violence, HIV status and rape. These are critical social issues and new insights have a real potential to improve people's lives, particularly in the area of the study. The paper was tweeted by a number of accounts but in particular by @Shukumisa (<https://twitter.com/#!/shukumisa>) and @SonkeTogether (<https://twitter.com/#!/sonketogether>); two support and advocacy organisations in South Africa. Shukumisa in particular tweeted in response to another account "@lizieloots a really important study, we have linked to it on our site". This is a single example but it illustrates how it is possible to at least identify where research is being discussed within practitioner and community spaces.

But can we go further? More recently I've shown some other examples of heavily tweeted papers that relate to work funded by cancer charities. In one of those talks I made the throw away comment "You've always struggled to see whether practitioners actually *use* your research...and there are a lot of nurses on Twitter". I hadn't really followed that up until yesterday when I asked on twitter about research into the use of social media by nurses (<https://twitter.com/CameronNeylon/status/211749215322378240>) and was rapidly put in touch with a range (<https://twitter.com/BrianSMcGowan/status/211753612664250369>) of (<https://twitter.com/amcunningham/status/211777853493219329>) experts (<https://twitter.com/amcunningham/status/212129273316773888>) on the subject (remind me, how *did* we ask speculative research questions before Twitter?). So the question I'm interested in probing is whether the application of research by nurses is something that can be tracked using links shared on Twitter as a proxy?

This is interesting from a range of perspectives. To what extent do practicing nurses who use social media share links to web content that informs their professional practice. How does this mirror the parallel link sharing activity by academic researchers? Are nurses referring to primary research content, or is this information mediated through other sources? Do such other sources link back to the primary research? Can those links be traced automatically? And a host of other questions around how professional practice is changing with the greater availability of these primary and secondary resources.

My hypothesis is as follows: Links shared by nurse practitioners and their online community are a viable proxy of (some portion of) the impact that research has in clinical practice. The extent to which links are shared by nurses on Twitter, perhaps combined with sentiment analysis, could serve as a measure of the impact of research targeted at the professional practice of nurses.

Note: This article gives the views of the author(s), and not the position of the Impact of Social Sciences blog, nor of the London School of Economics.

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