Science community blogs: recognising value and measuring reach



Blogs have evolved into an established academic genre and a valuable forum for alternative journalism and public education. **Manu Saunders** draws a distinction between science communication blogs and science community blogs, with the latter offering academics the opportunity to strengthen writing skills and develop new collaborations, while also being a source of advice and mentorship for students, women, and other underrepresented groups. Science community blogs provide an open forum for discussion about the processes and challenges of doing science, and a chance to broaden discussions

around diversity in academia. Despite this, the complexities of quantifying their reach and impact mean there are still few formal recognition processes that encourage scientists to use blogs as a scholarship tool.

Blogs have matured from their early days as online personal journals into a valuable forum for alternative journalism and public education. Blogs have also evolved into a standalone academic genre, with an established presence in humanities, economics, and social sciences disciplines. But scientists, as individuals, have been slower to take up blogging. Most scientists acknowledge the value of blogs for science communication aimed at general audiences, even if they don't blog themselves. Yet blogs have many other benefits for the broader scientific community.

In our recent paper, my co-authors (seven other ecologists who are also active bloggers) and I highlight the distinction between science communication blogs and science community blogs. Science communication blogs are written by a diverse range of authors, like science writers, journalists, or academics, and have the primary aim of writing science stories for non-specialists. In contrast, science community blogs are written by academics, mostly for an audience of other academics, and predominantly discuss research and teaching issues. Of course, many individual blogs will have some overlap between the two categories.

But, as a standalone genre, science community blogs contribute immense value to the academic community, despite not being formally recognised in the scholarly literature and receiving limited attention in broader discussions of blogging. Blogs give scientists an opportunity to strengthen their writing skills and develop new collaborations (case in point: our paper was a direct result of interactions via each other's blogs). They provide networking opportunities and a source of advice and mentorship for students, women, isolated individuals, and other underrepresented groups. And they provide an open forum for discussion about the processes and challenges of doing science, and an opportunity for broadening the discussion around diversity in academia.

Blogs are also citable primary sources. They provide a rapid forum for post-publication peer review. Importantly, they are an alternative publishing format for authors to post content that may not be accepted by journals focused on publishing so-called "high-impact" contributions; e.g. opinions, statistical techniques, negative results, small pilot studies, or natural history observations.

Scientists are often required to measure their reach and impact for grant, promotion or job applications. Blogging provides one way for scientists to increase their reach and impact, but there are a number of factors that influence this. As blogging ecologists, we looked at our own experiences and analysed readership data from each of our blogs to highlight some of these factors.

Our seven blogs differ in a few ways. Two are group-author blogs, while the rest are maintained by a single author. The oldest blog started in late 2009, while the youngest started in early 2016. As authors, we range from early-career postdocs to tenured professors, and we present perspectives from five different countries, all with different academic and higher education structures (USA, Canada, UK, Sweden, and Australia). Through our blog data, we identified a few key trends that provide insight into the complexities involved in quantifying blog reach and impact.

Overall, there was a strong positive relationship between a blog's monthly posting frequency (number of posts published per month) and most of the standard audience metrics – number of followers, total visitors, views per month, etc. However, when we looked more closely at some of these relationships, it was clear that reaching a broader audience is not as simple as "more posts = greater reach". Reach depends on a complex relationship between posting frequency, author identity, and the impact of individual posts.

As the only southern hemisphere blogger in the mix, I was interested to see that North American blogs generally received more views than the blogs from UK and Australia. This probably reflects the stronger historical presence of a blog culture in North America, as well as time zone mismatches that influence global social media interactions.

We also analysed data from each blog's top ten posts of all time for insight into how we could measure the reach or impact of individual posts. Unsurprisingly, this was hard to do. The number of on-site engagements, like comments and pingbacks from other blogs, tell only half the story. A big part of a post's reach is how often, and on what media, it is shared by readers. Our data suggested that individual posts can have far greater reach beyond the blog's immediate network of followers. This means that number of followers, a simple metric often used to quantify a scientist's reach on social media, is not always indicative of true reach and impact.

The data we were able to gather from our blog platforms quantified reach, but told us little about impact. Impact is notoriously hard to measure and is often based on personal value systems. As bloggers, we have experienced this through personal interactions with readers who told us how they were impacted by individual posts on our blogs — many of these readers did not openly engage with the post online. For example, my blog's most-read post of all time discusses the importance of observing nature for ecologists — it seemed so obvious when I wrote it, but I was surprised how many people have since approached me in person to tell me how much the post inspired them as a reminder that natural history observations are the foundation of ecological research. A simple content analysis showed that, collectively, our most popular posts covered topics relevant to academia, scholarship and higher education — a sign that discussion of broadly relevant academic issues attract larger readership and potentially have greater impact.

Despite the myriad benefits that science community blogs provide individuals and the broader scientific community, there are still few formal recognition processes in academia that encourage scientists to use blogs as a scholarship tool. We hope this paper broadens the discussion around the community development value of blogging.

This blog post is based on the author's co-written article, "Bringing ecology blogging into the scientific fold: measuring reach and impact of science community blogs", published in Royal Society Open Science (DOI: 10.1098/rsos.170957).

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