

To blog or not to blog?

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Scientists know much more about their field than is ever published in peer-reviewed journals. Blogs can be a good medium with which to disseminate this tacit knowledge.

Like it or not, there are certain scientific areas, such as climate change, stem-cell research, genetic modification of food or evolution, that attract a disproportionate amount of public attention. This is usually because they are perceived to have relevance for strongly held ethical, economic, moral or political beliefs. Scientific results in these fields are therefore parsed extremely closely to see how they might project on what the public feels is a key issue — regardless of their true importance.

In these high-profile fields, misstatements and confusions are common, and scientists can frequently find their work used (and abused) by advocates, with the effect of instigating a strong desire among some of the public for more direct access to the underlying scientific research; a desire that is not in the least bit satisfied by the occasional newspaper column buried on page 17. Blogs are one communication tool that can supply more depth than is found in traditional media. They provide a rapid, casual, interactive and occasionally authoritative way of commenting on current issues, new papers or old controversies.

But why read a blog when you can go directly to the scientific literature? Unfortunately, access to new findings in the traditional way is harder than it should be. Many technical papers are behind pay-walls, which make it impractical and expensive for unaffiliated individuals to read them. More importantly, however, even when papers are freely available, they often do not provide the insight expected.

A scientist reading a paper can often appreciate whether it is interesting or

important from a quick skim of the methodology, a figure or two and the principal results. Their experience teaches them to pay little attention to the occasional piece of overreach in the last paragraph and to fill in the sometimes understated background. By contrast, a lay person might focus much more on the easy-to-understand ‘throwaway’ comments, and spend little time evaluating the usefulness of the technique, or the implications of any missing context.

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This is where blogs can help. Much of the information in any field of science is tacit. The latest climate papers do not generally explain why five ensemble members are used in a particular climate model experiment, or what the ‘wiggles’ in the curves mean, or why water vapour is treated differently from carbon dioxide even though they are both greenhouse gases. Scientists generally absorb this background knowledge through a kind of osmosis in graduate school. They continue to pick it up at coffee and over dinner at conferences and workshops as they discuss the latest results.

These exchanges are often a little rougher and more raw than the genteel academic discourse printed in the journals. They are also more fun and

lively. However, this kind of informal second-stage peer review is vital to the need to quickly process the vast amount of information being produced. Scientists from all fields rely on it heavily to make a first cut between the studies that are worth reading in more detail and those that aren’t.

Scientists writing in blogs can make this context available to anyone who is interested. A science blog can explain that one cold month does not an ice age make or elucidate the difference between a weather forecast and a climate projection. Over time, their archives provide a repository of tacit knowledge that readers — both lay and scientific — can find invaluable. As in many spheres, the credibility and authority of any particular blog must be earned and an audience cultivated. Daunting as that may seem, the success of Scienceblogs.com, Cosmic Variance or the Panda’s Thumb shows it is possible to combine a deep knowledge of a subject with accessibility and popularity.

Some may dismiss blogs as being a distraction from real scientific work, or of egging on the very controversies that we seek to diffuse. There is an element of truth to both of these claims. But the response should not be a return to the ivory tower. That simply leaves the field clear for those who prefer to confuse rather than enlighten. With the importance of science in policy decisions being more apparent than ever, our ability to do science and enhance its relevance in public life relies on the community’s willingness to engage, inspire and inform. Blogs are one way to do that, and they can excel at providing the context that is so often missing in other media. Not every scientist needs to have one, but maybe every scientific field does.