

A Proposal for Communicating Science

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‘Communicating Weather and Climate’ was the theme of this year’s AMS meeting in Seattle, and the AMS is working on a draft statement on ‘Communicating Science’. But are we really serious about this? Take my own experience as example. In the past 40 years I have published almost 150 papers. Although they were all funded by the public, they are all unintelligible to the public, because they are written in scientific English, and specifically the language of one small branch of science.

Something is clearly wrong here! This past year I have started writing articles using language that is intelligible to both scientists and the public. I can publish these in newspapers and on my web-site, but what happens if I try to get a journal to publish one? One recent review, rejecting a paper, clearly and quite correctly said “In my opinion, this manuscript was written for a different audience than the typical reader of this journal. Instead of directed at a scientific audience, the content and writing style of the article are more that of a popular piece for something like an extension magazine or public web-site.” I don’t think our editors and reviewers are going to change their attitudes anytime soon. Their closed scientific club is too comfortable.

We don’t expect the public to read and understand our journals. Our concept of communication is that we are the experts; the public should listen to our pronouncements and make wise decisions based on our sound scientific advice. But if we look outside the self-constructed walls surrounding our club, we might notice that the public and the political arena aren’t greatly interested. Given that the future of the Earth depends on the public have a clearer understanding of Earth science, it seems to me there is something unethical in our insular behavior as scientists.

Here is my proposal. I suggest authors must submit for review, and scientific societies be obliged to publish two versions of every journal. One would be the standard journal in scientific English for their scientific club. The second would be a parallel open-access summary translation into plain English of the relevance and significance of each paper for everyone else. A translation that educated citizens, businesses and law-makers can understand. Remember that they are funding this research, and some really want to understand what is happening to the Earth; especially in states like Vermont where I work.

We should train ourselves and our students to do this; not introduce another layer of translators. The AMS should perhaps start with the *Journal of Climate* and *Weather, Climate and Society*. I expect that within a few years, even the scientific articles would become clearer as the concept of broader communication sinks in.

We should also move away from the historical but shocking practice of hiding publically-funded research from the public to protect journal copyright. This really impedes communication, not only with the public, but within the science itself. Typically anyone outside an educational system that pays the journal library fees has no ready access to the current literature – this includes me and a large number of the environmental professionals here in Vermont. I urge all my colleagues to find ways around this system, and make all their work publically accessible in equivalent form on the Web.