Calling science to account

Scientists and the media are trapped in a cosy relationship that benefits neither. They should challenge each other more, says **Colin Macilwain**.

As you read this I will be in San Diego for the annual meeting of the American Association for the Advancement of Science (AAAS). For policy wonks like me, it's an unmissable event. It is also a prime example of what is wrong with science's relationship with the mass media.

Like sausages being made, or legislation being passed, the process that turns scientific developments into headlines and into radio and television reports isn't pretty to observe. Nor is it optimal.

One of the main jobs of the AAAS meeting is to parcel up original research that has already been published, and often publicized, into digestible chunks. These then reappear as news stories in papers and broadcasts around the world, turbocharged by quotes from the scientific luminaries attending the meeting. This at least marks a change in tempo from the weekly routine, which converts original scientific findings, via a production line of embargoed press releases from journals and universities, into a steady stream of largely uncritical stories. (The mainstay of this process is the embargo system, whereby reporters and editors desist from reporting on findings until a fixed embargo time — and then do so all at once.)

There was a time when I thought that the outcome of this process didn't matter much: the public would grow wise, and the stories about 'cures for cancer' would fade away. Well, the public is growing wiser — but the stories aren't fading. Propped up by the specious authority of their jargon and, most of all, by their cheapness to report — which stands in stark contrast to proper investigations of issues such as public corruption, corporate maleficence or industrial health and safety — essentially silly stories about science continue to fill newspapers and news broadcasts.

Some science reporters are uneasy about this situation, but most accept it. Dumbed-down media coverage has bred mistrust among some scientists, leading them to withdraw from what they regards as a media circus. Most, however, seem to be largely content with a system that disguises the very human process of scientific discovery as a seamless stream of ingenious and barely disputed 'breakthroughs'. Like other elites, researchers feel no great yearning to be held to account by the press.

The consequences of this quiescence are rather serious. There was no deal on climate change in Copenhagen last December because none of the leaders in attendance felt under real public pressure to deliver one. The senior leadership of the global scientific community, whose collective view might have galvanized public opinion, had its credibility on the line on this issue — and was found wanting.

In a small way, a more probing and intelligent approach to science journalism could help bridge that credibility gap. There is a need for dedicated newspaper sections, radio and TV programmes, more akin to existing sports coverage, that can provide detailed, critical assessment of the scientific enterprise for people who really like science. Reporters and editors could then engage with sets of findings and associated issues of real societal importance in the news pages, asking the hard questions about money, influence and human frailty that much of today's science journalism sadly ignores.

The media machine

I was struck by the misallocation of resources within journalism seven years ago, when the AAAS meeting was held in Denver, Colorado. *The New York Times* had just run a hugely impressive investigation, with the Canadian Broadcasting Corporation and the US Public Broadcasting Service, into atrocious health and safety problems in American metal foundries.

My thought was: why does the most powerful newspaper in America have to collaborate with two public-sector broadcasters to mount an effective investigation, when there are 700 or so reporters milling around at this meeting?

The answer is that, thanks to the massive growth in public relations and to online media's insatiable appetite for 'content', journalism in science, as in other spheres, has evolved into an ugly machine — called 'churnalism' by media-watcher Nick Davies and others. This machine delivers inexpensive and safe content, masquerading as news, to an increasingly underwhelmed public.

The machine prospers because it serves the short-term interests of its participants. Editors get coherent and up-to-date copy. Writers get bylines. Researchers, universities and funding agencies get clips that show that their work has had 'impact'. And readers get snippets, such as how red or white wine makes you live longer or less long, to chat about at the water-cooler.

None of these groups is benefiting strategically from the arrangement. Science is being misrepresented as a cacophony of sometimes divergent but nonetheless definitive 'findings', each warmly accepted by colleagues, on the record, as deeply significant. The public learns nothing about the actual cut and thrust of the scientific process, and as a result is beginning to adopt a weary cynicism that can only rebound on science in the long run.

A whiff of this backlash can be detected in the public's reaction to the leaking of e-mails from the University of East Anglia in Norwich, UK, regarding the failure to release climate data in response to freedom-of-information requests. Polling and anecdotal evidence suggests that this episode has deeply eroded fragile public confidence in the science of global warming.

Telling tales

A report commissioned from a group of editors and public-relations officers by Britain's science minister, Paul Drayson — *Science and the Media: Securing the Future*, published last month — generally applauded existing standards. Its only cautionary note was a plaintive call for more investigative reporting.

Appended to the report was a cooler assessment by Andy Williams of Cardiff University's journalism school. Williams's survey of science writers and editors identified widespread misgivings about growing workloads associated with multimedia reporting, the rise of public relations, 'pack' journalism (in which reporters are obliged to cover a story because their competitors will) and the lack of time for original research on stories.

It is hard, given the parlous financial state of newspapers and broadcasters, and the continued onslaught of the public-relations industry, to see what will reverse these alarming trends. One possible approach would be the unilateral abandonment, by writers and editors on influential publications, of the embargo system and the pack mentality that goes with it. Another would be far more willing and constructive engagement by scientists themselves in the public airing of the strengths, weaknesses and missteps that characterize scientific progress. ■

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