

Journalism, Science and Society

Science Communication between
News and Public Relations

**Edited by
Martin W. Bauer and
Massimiano Bucchi**

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1 Introduction and a guidance for the reader

Martin W. Bauer and Massimiano Bucchi

We started this project some years ago when the British Council and the CRUI—Conference of Italian University Chancellors—offered an opportunity for joint activities on science communication. We called a meeting in May 2003, on some beautiful spring days in the northern Italian Trentino, and invited a group of Italian and British science journalists to discuss issues and trends in their daily practice, asking them to reflect, in particular through case studies, on their own criteria for ‘success’ and ‘failure’ in science writing. The positive experience encouraged us to call a second meeting, with the support of the same sponsors. This time we invited voices from the public relations departments of scientific institutions. A handful of Italian and British professionals arrived for the weekend in Trento in May 2005, and some academic colleagues joined for the discussions. Again the proceedings were rich in detail and more questions were raised, so we decided to expand the discussions for the purpose of this book beyond daily newspapers and the geographical scope of Italy and the UK. The basic idea was to juxtapose, in the field of science communication, the worlds of science journalism and public relations, each with its own *modus operandi*, rules of engagement, and quality criteria, established but changing for science journalism, newly emerging for science PR. How are these two practices interacting? How is this interaction changing the overall framework of science communication? Are there significant discontinuities with regard to the past? The resulting book investigates two main scenarios:

- S1: The increasing private patronage of scientific research changes the nature of science communication by displacing the logic of journalistic reportage with the logic of corporate promotion.
- S2: Scientific institutions increasingly adopt the strategies and tactics of corporate communication for image, reputation, and product management.

For this purpose, the book has a ‘symmetrical’ design in four parts. In the first part we trace the changing contexts of science communication in the second half of the twentieth century, complemented by two chapters which extend our horizon into 1930s Britain and late nineteenth century Italy.

Science communication itself has a history of actors and practices in changing contexts. The second part gives voice to professional science writers and invites critical reflections on changing operational rules in their field. Part III brings in the public relation professionals, who again, through case study and critical reflection, demonstrate their emerging rules of engagement. Finally, part IV invites commentaries from around the globe. Experts in science communication from Japan, Korea, Australia, South Africa, and the USA comment on the case studies and ask the question: Are the issues raised global or local?

We will provide a brief overview of the book's contents to guide the reader and end with some comments on the boundaries of the present argument.

THE CHANGING SCENARIOS OF SCIENCE COMMUNICATION

Part I, 'The Changing Scenarios of Science Communication', opens with a chapter by Jeff Hughes (University of Manchester) who explores the emergence of news values for science through an episode in the pre-history of professional science journalism, namely the struggles of young J.G. Crowther with his editor at the *Manchester Guardian*. Hughes comments on newly discovered letters in which Crowther tussles with his editor over what might be newsworthy in the Britain of the 1930s. Crowther's enthusiasm about new atomic and quantum physics finds little editorial support until other papers pick it up. His editor asks for 'clarity' and 'simplicity' and stories about 'insects and dairy farming' rather than electrons.

Paola Govoni (University of Bologna) recovers pioneering attempts to mobilise public attention for science at the end of the nineteenth century and reminds us that popularisation of science has its own protracted history. These Italian attempts to imitate initiatives mainly from Britain did not last. She identifies the critical factor in the general level of education, which proved to be insufficient to sustain a market for popular science publications. General school education—although too often neglected—may also be highly relevant to understanding the contemporary dynamics of science in society.

Bauer and Gregory (London School of Economics and University College, London) look at the fluctuations in intensity and framing of science reportage in post-war Britain, and characterise the transition from an old, journalistic mode of news production to one that is source-driven in the logic of corporate communication and public relations. Key for this transition is the decade of the 1970s, when scientists became alienated by TV technology and a science-critical 'zeitgeist' (environmental and anti-nuclear protest) left the field of communication to the professionals. Furthermore, the increasing private patronage of scientific research makes scientific knowledge to a certain extent similar to a commodity that requires mar-

ket promotion like toothpaste, cars, or perfumes. The authors point to a number of dilemmas and contradictions that might arise from this trend.

Bucchi and Mazzolini (University of Trento) offer an analysis of the changing press reportage of science in post-war Italy. Trends highlight a growing space devoted to science, but largely 'institutionalised' in special sections; an increasingly dominant coverage of biomedical stories in comparison to other fields; the involvement of scientific and medical experts, not only as sources or as interviewees, but also as the authors of articles. Furthermore, they point to a general trend to represent science as consensual, linear, and uncontroversial, using single, institutional sources like universities and research institutes, which shows the growing impact of PR activities for science.

Massarani and her colleagues (Fundacao Oswaldo Cruz, Rio de Janeiro) present a panorama of science coverage across five Latin America countries in 2005. They document the similarities and differences in science reportage, highlight the efforts that are undertaken to create a presence for science in these public spheres, and point to the dominance of foreign sources for science stories. With few exceptions, Latin American newspapers often tend to ignore home grown scientific achievements. This is in part due to easily available foreign sources and a lack of cooperation on the part of local scientists and research institutions.

Jon Turney (Imperial College, London) characterises the most recent boom in popular science book publishing, which has provided a platform for many authors to become visible scientists. He proposes an explanation for why books continue to be an important medium of popularisation and he reflects on how to tell good from bad popular science books: heroes, big questions, and explanations. He explores their cultural impact as bestsellers, literary genre and blue-prints for TV and cinema productions, and offers some observations on publishers' desperate search for new mass readers.

SCIENCE WRITING

In the opening chapter of Part II 'Science Writing: Practitioners' Perspectives', Tim Radford (former science editor, *The Guardian*) accounts for the uneasy relationship between journalists and scientists in terms of their different time horizons, institutional and professional constraints. He identifies a crucial tension in the focus of the mass media—particularly newspapers—on seeking a good narrative rather than seeking to advance public education as scientists sometimes seem to expect. Science journalists share Scheherazade's predicament: only good story telling keeps them alive.

Luca Carra (*L'Espresso* and Zadig news agency, Italy) shows how the reporting of the cloning of Dolly the sheep (1997) makes use of the news

value 'sex' in its wider meaning of sexuality, reproduction, and kinship, which determined the success of the story well beyond its scientific importance. Before Dolly, biotechnology found little public attention in Italy. After Dolly, biotechnologies gained prominence in the news stimulating public debates on GM food and embryonic stem cells. He also shows, in a case of excitement over 'miracle cures', that readers can read a sceptical story of scientific failure—the therapeutic failures of melatonin—as a story of therapeutic hopes. The key news value seems to be the 'challenge to the natural order of things': either the challenge posed by science to the moral order, or the challenge posed by 'hopes for miracles' to the authority of science.

Sylvie Coyaud (*Il Sole 24 Ore*, Italy) points out that science writers in Italy rely increasingly on press releases by research institutions and write 'second hand' reports. Science journalists are invited to a growing number of science communication events and report the achievements positively. On the other hand, for structural reasons they fail to cover the pressing problems and dysfunctions of current organisation of research and their recruitment practices.

Chiara Palmerini (*Panorama*, Italy) describes science writing as a dual negotiation process: with the journal editor who needs to accept the piece and with the scientists who are the sources for the story. The chapter reports problematic negotiations with scientists who wanted to actually reword her writing, or went so far as to suggest what was or was not appropriate to tell the general public.

Fjaestad (editor *Forskning & Framsteg*, Sweden) explains 'why journalists write the way they do and not how scientists want them to' by the different institutional cultures of mass mediation and of scientific research. Rather than looking for bridging these differences, he stresses their different roles in informing society, and thus advises scientists on how to deal with journalists.

Brian Trench (University College Dublin) invites us to reflect on the challenges posed by the Internet to science journalism. Making information, originally prepared by experts for other experts, available beyond the specialist circle enables patient groups to become significant actors for other patients on medical issues, multiplying and mixing the types of material available to the general public (press releases, scholarly literature, media reports, online discussions). Thus the Internet makes it necessary for science journalists to redefine their role for new science communication scenarios.

Jon Franklin (University of Maryland) offers a frank account of a career as a science journalist in the United States through post-war scientific idolatry and two-culture clashes to the iconoclasm of the 1970s and the turning point of Three-Mile Island. Henceforth science writers refused to be mere translators. Finally and paradoxically, as science has become valuable news and daily routine, science journalism disappears as a speciality; it merges into general public writing and journalism with their ethos of writing good stories for the historical mainstream.

PUBLIC RELATIONS FOR SCIENCE

In Part III, 'Public Relations for Science: Practitioners' Perspectives', Bob Ward (Royal Society of London) shows the strategy and tactics used by the Royal Society of London to engage a media campaign on global climate change. The paper highlights what is possible under the constraints posed by media coverage and in a context of high-profile competing information on climate change, and how it might be evaluated.

Manuela Arata (Italian Institute for the Physics of Matter, Genova) documents successes and failures in a recently established public relation structure, extracting a set of operational rules for how to (and not to) communicate with a broad portfolio of activities targeted to different audiences.

Bonwyn Terrill (Sanger Centre, Cambridge, UK) addresses the issue of the public relations styles of scientific institutions, which have the potential to be equally successful. She offers a short account of events celebrating the 50th anniversary of the discovery of the double helix model of DNA, at Cold Spring Harbour, New York, and Cambridge, UK. She compares these two events in context and practicalities, and evaluates their outcomes against the objectives. In terms of styles, one event focused on stardom and celebrity (US) and the other focussed on a collective effort of reaching out to the public (UK). She wonders whether this difference in style reflects cultural, organisational, or other reasons; for example, to compensate for the lack of a local scientific celebrity.

Pantarotto and Jori (Mario Negri Institute, Milan) present the communication efforts of a major private, non-profit biomedical research institution. In the absence of any centralised public relations function, a series of broad and diversified communication efforts and two major public events are being performed. Communication has two strategic purposes: firstly, to attract donations (30% of its budget is privately donated) through the management and expansion of a donor database; secondly to maintain the image and reputation of the institute as the country's most reliable source of information on drugs and other health issues. These efforts are distributed successfully across three functions without co-ordination: research, external relations, and the press office.

Gregory and her colleagues (University College London and University of Cambridge) explore the meaning of 'public engagement' in the context of private patronage of scientific research. The paper reports a recent initiative of the Royal Society of Art and Industry (RSA) to launch a discussion *Forum for Technology, Citizen and Market* to stimulate social learning. As science is increasingly undertaken in university spin-off companies, what is the potential for dialogue with the public under these new conditions? Since public controversies during the 1990s, over BSE and GM food in the UK, the RSA and other actors are concerned about waning public goodwill towards science and technology. The paper explores what the 'public' means for these newly emerging and privatised scientific actors.

Winfried Goeppfert (Free University Berlin) offers a critical analysis of the shifting power balance between public relations and journalism. Professional public relations offers itself as a source of scientific information. The tactics of doing this has become ever more sophisticated and powerful. The working conditions of science journalists, on the other side, are becoming more precarious: less full-time employment, freelance, and shorter deadlines. This renders science writers more dependent on sources. Science public relations has become a lucrative career move for science journalists. Overall the balance of power is shifting from journalism to public relations. The weakness of journalism is the strength of public relations.

Carlos Elias (University Carlos III, Madrid) presents two cases of recent environmental emergencies in Spain. He shows how scientific expertise and information can be instrumentalised and monopolised by government public relations. Spanish scientists have challenged this government strategy, with the help of the international media. The author argues that these attempts to enrol scientific expertise for political purposes can be at least partially explained by relicts of an authoritarian political tradition in Spain.

GLOBAL OR LOCAL ISSUES?

The book closes with a series of commentaries that place these issues and raise them within a broader international context: constancy and changes in news values; dual negotiations; lack of general education; commodification; source-dependency; popular science boom; focus on narrative powers; lacunae of coverage; disappearance of science journalism; challenges of the Internet; the functional organisation, strategies, tactics, operational rules, and styles of public relations; and dialogical engagement. To what extent are these general trends and changes? Sharon Dunwoody (USA) raises the audience focus. Toss Gascoigne (Australia) stresses continued public patronage and the need for co-ordination among communicators. Marina Joubert (South Africa) highlights the need for building capacity for science communication in Africa. Kenji Makino (Japan) reports on the recent 'science news bubble' and the reorientation of science communication. And finally Hak-Soo Kim (South Korea) reflects on the successful watchdog role of science journalism in revealing the 'scientific fraud' of Professor Hwang against the powers of professional PR.

DEFINING THE ARGUMENT

Any book is ultimately selective, and to enumerate all the missing pieces of this book on science communication would be arduous; also the omissions are for our readers to point out. However, some limitations are worth men-

tioning because they define our effort and achievement and widen the range of questions which we have to leave for further discussions.

One clear limitation is our focus on the print media as *pars pro toto*. While radio or TV might operate with similar news values as print journalism, it is hard to neglect significant differences and specificities. For instance the availability of image materials puts enormous pressure on TV, defining the scope of potential news, or accentuating sensationalism. How does TV science adapt to the new context?

Secondly, this book deals largely with routine activities in journalism and PR, barely touching the demands of controversies, crisis, and disasters, however defined. The dealing of journalists and PR professionals with 'crisis management' deserves a range of case studies in its own terms.

Thirdly, our analyses and case studies seem to imply that the main audience of science writing is the broad public of citizens and consumers. But increasingly, particularly in the context of new technologies such as IT, biotechnology, or nanotechnology, the audience is often not the general public, but other non-specialist scientists, policy makers, and investment brokers, who take media attention as cues for potential investment opportunities. We know little to nothing on the use of daily science news among investment brokers and scientists: a key theme for future investigations.

Fourthly, we say nothing about the increasing mobilisation of artistic expression for the purpose of science communication in society: film, photography, painting, sculpture, theatre, music, performances. For example, many public and private cultural bodies have started to combine artistic and scientific events. Funding agencies active in the area of research and public engagement now regularly sponsor artistic creations in diversifying their out-reach activities. Is this just image and reputation management—like T-Mobile's sponsoring of a team at the Tour de France—or the functionalisation of art, a sort, so to say, of 'scientific realism' imitating its socialist precursor? Will this amount to an 'aesthetisation of science' to contain public controversy of science and technologies in excitement and uplifting experiences? Our book is short on this development, clearly a topic that deserves more attention.

Finally, we advise the reader to take with circumspection our two scenarios: the substitution of the logic of journalism with the logic of PR in science news, and the adoption of corporate promotion strategies by research institutions and actors. If science communication is shaped by PR practices, then it would be no less interesting to explore how the theory and practice of PR is 'enriched' by this encounter. The adoption by corporate promoters of guerrilla marketing, forms of environmental and anti-nuclear activism, stunts, and street theatre offers hints that technological controversies are a testing ground and learning opportunity for mainstream PR and for the recruitment of creative competence. Professionalisation brings with it transferable skills and competence across purposes. No surprise then when over the years of environmental campaigning some prominent activists appar-

ently changed ‘camp’: is this co-optation, conversion, treason, or infiltration? These again are interesting topics for another occasion.

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Part I

The changing scenarios of science communication