

◆ Resources on Popular Science Communication

Barbara Gastel

Associate Professor
Texas A&M University
College Station, Texas

Jason E Moore

Graduate Student
Texas A&M University
College Station, Texas

Many books and articles offer practical guidance in presenting science to the public. Likewise, a considerable body of scholarly research exists on popular science communication. Listed below are written materials that offer guidance and research as well as anthologies, newsletters, and electronic resources in the field. Although not exhaustive, the annotated list includes many of the main US resources on popular science communication and some British writings. We welcome suggestions of major resources to include in possible future versions of this list.

Guidance

Medical journalism: the writer's guide to getting published. T Albert. New York: Radcliffe Medical Pr; 1995. 127 p. American adaptation of British primer on popular medical writing; intended primarily for physicians but also suited for other readers.

Science writing today and tomorrow. P Barnes-Svarney. *The Writer* 1994 Nov;107(11):15-7. Basic guidance from a scientist turned science writer.

Late night thoughts about science writing. A Blakeslee. *Quill* 1994 Nov/Dec;82(9):35-8. Pointers from a longtime science journalist.

A field guide for science writers. D Blum and M Knudson, editors. New York: Oxford Univ Pr; 1997. Science-writing handbook intended largely for students and young reporters; includes guidance on writing for various media and covers various fields.

News & numbers: a guide to reporting statistical claims and controversies in health and other fields. V Cohn. Revised ed. Ames (IA): Iowa State Univ Pr; 1994. 190 p. By a long-prominent science reporter; especially strong on topics such as evaluating study design.

Writing science & medical nonfiction: it's easier than you think. MS Dahir. *Writer's Digest* 1995 Nov;75(11):29-31. Basic guidance for those new to popular science writing.

Presenting science to the public. B Gastel. Philadelphia: ISI Pr; 1983. 146 p. Intended mainly for scientists; includes guidance on working with reporters and on communicating science to the public directly.

Health writer's handbook. B Gastel. Ames (IA): Iowa State University Press; in press. Guidance on popular medical writing; areas addressed include information gathering, writing style, ethical issues, and careers.

Reporting on risk: a journalist's handbook on environmental-risk assessment. MA Kamrin, DJ Katz, and ML Walter. Los Angeles: Foundation for American Communications; 1995. 113 p. Focuses mainly on helping journalists understand risk assessment; also includes guidance on presenting information on risk.

Developing patient education handouts. TA Lang. In: Minick P, editor. Biomedical communication: selected AMWA workshops. Bethesda (MD): American Medical Writers Assoc; 1994. p 147-52. Brief but wide-ranging guide to developing written materials for patients; topics include ways to promote understanding and recall, help readers find information, and evaluate drafts.

Writing a publishable health article. J Lippert. *The Writer* 1992 Mar;105(3):17-20. Good basic advice for newcomers to popular health writing.

Editing and publication: a training manual. I Montagnes. Manila (Philippines): International Rice Research Inst; 1991. 429 p. Reaching the nonspecialist, p 155-207. Good unit on presenting scientific material to nontechnical readers; other units also useful in this regard; accompanying trainers' manual available.

Communicating science news: a guide for public information officers, scientists, and physicians. National Association of Science Writers. 3rd ed. Greenlawn (NY): NASW; 1996. 36 p. Useful handbook for facilitating communication between the scientific community and the news media; includes helpful sections on news releases, media arrangements at scientific meetings, and common pitfalls; electronic version available at <http://www.nasw.org>.

Media guide for academics. JE Rodgers and WC Adams. Los Angeles: Foundation for American Communications; 1994. 72 p. Designed to help scientists and other academics understand and work with the popular

media; includes chapters on working with an institution's public information officer and on crisis communications.

Strategies for explaining complex science news. KE Rowan. *Journalism Educator* 1990 Summer;45(2):25-31. Drawing on research, provides advice on presenting scientific explanations, including those designed to overcome popular misconceptions.

Communicating science: a handbook. M Shortland and J Gregory. New York: J Wiley; 1991. 186 p. British guide to communicating science to the public; includes sections on writing and speaking and on working with the print and broadcast media.

The cancer handbook: a guide for the nonspecialist. DE Ward. Columbus: Ohio State Univ Pr; 1995. 130 p. Initially developed as *Reporting on Cancer: A Guide for Journalists*; may be especially useful to reporters covering cancer-related basic science.

The reporter's handbook: an investigator's guide to documents and techniques. S Weinberg. 3rd ed. New York: St Martin's Pr; 1996. 553 p. Guide to investigative reporting; includes chapters on healthcare and environmental issues.

The reporter's environmental handbook. B West, PM Sandman, and MR Greenberg. New Brunswick (NJ): Rutgers Univ Pr; 1995. 346 p. Consists mainly of briefings on environmental issues; also includes information on the assessment and perception of risk.

On writing well: an informal guide to writing nonfiction. W Zinsser. 5th ed. New York: Harper Perennial; 1994. 300 p. Science and technology, p 156-73. Good chapter on writing science articles for the public; other chapters, such as those on basics of nonfiction writing, also can aid in writing about science.

Description, Analysis, and Commentary
Communicating science to the public. D

Evered and M O'Connor, editors. New York: J Wiley; 1987. 214 p. Conference papers addressing scientific literacy and learning, science reporting, museums, and the public's perceptions of science and scientists.

Scientists and journalists: reporting science as news. SM Friedman, S Dunwoody, and CL Rogers, editors. New York: The Free Press; 1986. 333 p. Deals largely with the interactions of scientists and journalists; contains a good bibliography, mainly from the 1970s and early 1980s.

The visible scientists. R Goodell. Boston: Little, Brown; 1977. 242 p. Thoughtful look at "science celebrities" and their context; among figures discussed are Paul Ehrlich, Margaret Mead, Linus Pauling, Carl Sagan, and BF Skinner.

Social scientists meet the media. C Haslam and A Bryman, editors. New York: Routledge; 1994. 256 p. A scientist-centered exploration of how the media portray the social sciences and how journalists and social scientists perceive and relate to one another; includes advice on interacting with the press.

Covering the plague: AIDS and the American media. J Kinsella. New Brunswick (NJ): Rutgers Univ Pr; 1989. 299 p. Study of AIDS coverage during the early years of the epidemic.

Health in the headlines: the stories behind the stories. S Klaidman. New York: Oxford Univ Pr; 1991. 249 p. Review and critique of mass-media coverage of major health-risk issues; topics include smoking, cholesterol, radon, and AIDS.

Science and the mass media. H Kriehbaum. New York: New York Univ Pr; 1967. 242 p. Pioneering account of science coverage by the US media.

A survey of activities in public communication of science and technology in the United States. BV Lewenstein. In: Schiele B, editor.

When science becomes culture. Boucherville (Quebec): Univ of Ottawa Pr; 1994. p 119-78. Extensive overview of US activities in popular science communication; includes information on activities of government, mass media, museums, nongovernmental organizations, and other institutions; also provides historical perspectives.

When science meets the public. BV Lewenstein, editor. Washington: American Assoc for the Advancement of Science; 1992. 212 p. Workshop proceedings; includes case studies; contains chapters not only on television and newspapers, but also on museums and girls' clubs as vehicles for communicating science to the public.

The literature of science: perspectives on popular scientific writing. MW McRae, editor. Athens (GA): Univ of Georgia Pr; 1993. 321 p. Scholarly essays exploring the portrayal of scientific knowledge in popular writing about science; areas considered include the relationship between scientific knowledge and culture, myth, the role of persuasion, and the use of language.

Medicine and the media. [Multiauthored series.] Lancet 1996;347:1087-90, 1163-6, 1240-3, 1308-11, 1382-6, 1459-63, 1533-5, 1600-3. Among topics addressed: public understanding of science, newsworthiness, information sources, journals and the popular media, and tensions between medicine and the media.

Journalists reading journals. JA Miller. CBE Views 1990 Apr;13(2):44-5. Highlights of a survey of science journalists regarding their use of journals as sources.

Health risks and the press: perspectives on media coverage of risk assessment and health. M Moore, editor. Washington: The Media Inst; 1989. 111 p. Essays by journalists and academics on risk communication and related topics; also includes broad perspectives on media coverage of science.

Importance of the lay press in the transmission of medical knowledge to the scientific community. DP Phillips, EJ Kanter, B Bednarczyk, and PL Tastad. N Engl J Med 1991;325:1180-3. Drawing on a "natural experiment", concludes that coverage in the mass media increases scientists' awareness of journal articles.

Selling science: how the press covers science and technology. D Nelkin. Revised ed. New York: WH Freeman; 1995. 217 p. Examines the complex relationship between scientists and journalists, as well as both groups' influence on the coverage of science in the lay press.

Science reporting—today and tomorrow. J Troan. Science 1960;131:1193-6. Perspective from nearly 40 years ago.

Medical researchers and the media: attitudes toward public dissemination of research. MS Wilkes and RL Kravitz. JAMA 1992;268:999-1003. Survey of 1st authors of scientific articles in the *Journal of the American Medical Association* and *New England Journal of Medicine*; respondents generally reported substantial coverage of their research and showed positive attitudes toward the press.

Other

News reporting: science, medicine, and high technology. W Burkett. Ames (IA): Iowa State Univ Pr; 1986. 160 p. Combines instruction and description/analysis/commentary; includes a chapter on the history of popular science writing.

Directory of science communication courses and programs in the United States. S Dunwoody, E Crane, and B Brown. 3rd ed. Madison (WI): Cent for Environmental and Education Studies; 1996. 41 p. Guide to courses and programs that US universities and colleges offer in communicating science to lay audiences; to order, contact Sharon Dunwoody, Center for Environmental Communication and Education Studies, School of Journalism and Mass Communi-

cation, University of Wisconsin-Madison; 608-263-3389; fax, 608-262-1361; e-mail dunwoody@facstaff.wisc.edu.

Anthologies

The new science journalists. T Anton and R McCourt, editors. New York: Ballantine Books; 1995. 340 p. Compilation of recent American magazine articles, newspaper articles, and book excerpts on science; consists mainly of fairly lengthy pieces that draw on extensive research, use literary techniques, or both.

Medicine, media and morality: Pulitzer prize-winning writings on health-related topics. H-D Fischer, editor. Malabar (FL): Krieger Publishing Company; 1992. 263 p. Contains 36 Pulitzer-winning newspaper articles published over the years on a wide variety of health-related topics.

Best science writing: readings and insights. R Gannon, editor. Phoenix (AZ): Oryx Press; 1991. 193 p. Examples of award-winning popular science writing; the dozen authors represented include Richard Selzer, Carl Sagan, and John McPhee.

Newsletters

ScienceWriters. Newsletter of the National Association of Science Writers; for information, contact NASW, PO Box 294, Greenlawn NY 11740; 516-757-5664; fax, 516-757-0069; e-mail 71223.3441@compuserve.com.

Sciphers. Newsletter of Science Communication Interest Group, Association for Education in Journalism and Mass Communication; for information, contact AEJMC, University of South Carolina, Columbia SC 29208-0251; 803-777-2005; fax, 803-777-4728; e-mail aejmc@sc.edu.

SEJournal. Newsletter of the Society of Environmental Journalists; for information, contact SEJ, PO Box 27280, Philadelphia PA 19118; 215-247-9710; fax, 215-247-9712; e-mail SEJOffice@aol.com.

Electronic Resources

EurekaAlert! (<http://www.eurekaalert.org>). Server for research news in science, medicine, and engineering.

FACSNET (<http://www.facsnet.org>). Excellent resource for journalists; includes primers, background, sources, and links of use in science reporting.

National Association of Science Writers

(<http://www.nasw.org/>). Includes NASW materials, links to other sites.

New England Science Writers (<http://www.umass.edu/pubaffs/nesw/>). Hub with links to science organizations, science publications, science news services, and more.

Society of Environmental Journalists (<http://www.sej.org>). Resource primarily for those doing environmental reporting; includes SEJ

materials, as well as links to sources of environmental information.

PCST-L. Electronic mailing list on public communication of science and technology; to subscribe, send the command “subscribe PCST-L firstname lastname”, where “firstname” is your first name and “lastname” is your last name, by electronic mail to list-proc@cornell.edu; for information, contact Bruce Lewenstein at BVL1@cornell.edu. 