

Science-Writing Days Lead to Materials Career

Did you *choose* that job? That's what I'm asked when I tell my scientific colleagues that I'm an editor. The underlying question is clear, "Why would anyone trained over many years to do research take a position writing and editing?"

I explain that I simply followed my training and talents, and then stepped through a door of opportunity that had my name on it.

I'm not the first and won't be the last to sidestep into a nontraditional career. Graduating students and midcareer scientists currently face unexpected professional choices as government, business, and world priorities change. Job pressures increasingly squeeze out the "free time" available to pursue special talents and hobbies. Thus incorporation of these activities into "day" jobs becomes necessary for job and life satisfaction. Exploring how career choices satisfy these as well as other personal and professional goals is the impetus behind CAREER CLIPS. As the editor of *MRS Bulletin*, my own career path fits easily into the scope of this department.

In my career, I filter scientific information, and disseminate it to a broad audi-



As part of a panel on alternative career paths held during an American Association for the Advancement of Science meeting, Elizabeth L. Fleischer, Editor of MRS Bulletin, expresses the pivotal role her AAAS Mass Media Science and Engineering Fellowship had in launching her editorial career. She attends several technical meetings a year to keep informed about scientific developments relating to materials science and to collect ideas for coverage in the magazine.

ence. Success in science goes beyond doing great research; the results and interpretations of the work must be communicated clearly so others can build on previous

advances. I help that happen with every sweep of my pen and click of my mouse.

While my flare for math and science led me into the science track in college, the writing angle was an indispensable sideline that I didn't fully acknowledge until midway through my graduate studies. I should have known that I was destined for a career in publishing when I wrote a "book" in fifth grade, fully expecting it to be published. I should have heard the call when my high-school creative-writing teacher suggested a dual major in engineering and writing. And in college when I spent 30 (noncredit) hours per week working for the school paper, I should have seen the "writing" on the wall. Then when fellow students in graduate school spent the night running the ion-beam accelerator while I worked all night fitting copy into a 16-page community newspaper, just for fun, I should have realized my career direction.

The first step I consciously took toward my less-than-traditional career came midway through my materials-science PhD studies at Cornell University. One day after an all-day experiment alone with the ion implanter, a friend suggested I apply

Resources for Scientists Interested in Communications Careers

Media Fellowships/Internships

American Association for the Advancement of Science (AAAS) Mass Media Science and Engineering Fellows Program, c/o Amie King Directorate for Education and Human Resources Programs 1200 New York Ave., NW, Washington, DC 20005, USA phone 202-326-6670; fax 202-371-9849, e-mail aking@aaas.org; <http://www.aaas.org/>

American Physical Society (APS) Mass Media Fellowship Program Washington Office, National Press Building, 529 14th St., NW Suite 1050, Washington, DC 20045-2001, USA phone 202-662-8700; fax 202-662-8711 http://aps.org/public_affairs/Media.html

British Association, Media Fellowship Scheme, c/o Jane Mole 23 Savile Row; London W1X 2NB, United Kingdom phone 44-171-9733069; fax 44-171-9733051 e-mail ba.talk.science@mcr1.poptel.org.uk <http://www.britassoc.org.uk/info/projects.html>

Science News Internship Program, Science Service, Inc. 1719 N Street, NW, Washington, DC 20036, USA phone 202-785-2255, e-mail scinews@scisvc.org <http://www.sciencenews.org/>

Listserve

Public Communication of Science and Technology Listserve (PCST-L) provides an opportunity for discussion, exchange, and cooperation among practitioners, researchers, and scientists with an active professional interest in science communication. The list is explicitly intended to cross international, cultural, and professional boundaries. The list is sponsored by the Public Communication of Science and Technology Network, established in Poitiers, France, in 1989. To subscribe to PCST-L, send the message "subscribe PCST-L <firstname> <lastname>" to listproc@cornell.edu.

Educational Programs

- Science Communication Program, University of California—Santa Cruz Santa Cruz, CA 95064, USA, phone 408-459-4475 e-mail scicom@cats.ucsc.edu; <http://natsci.ucsc.edu/scicom/>

The science writing graduate certificate program is a three-term, full-time sequence of reporting, writing, and editing courses followed by a professional summer internship. The program requires a bachelor's degree (minimum) in science, excellent writing skills, and research experience.

- *A Directory of Science Communication Courses and Programs in the United States*, last updated in 1996, can be purchased through the Center for Environmental Communication and Education Studies School of Journalism and Mass Communication University of Wisconsin—Madison, 821 University Avenue Madison, WI 53706, USA phone 608-263-3389; fax 608-262-1361 e-mail dunwoody@facstaff.wisc.edu

Organizations

Council of Biology Editors, Inc. 60 Revere Drive, Suite 500, Northbrook, IL 60062, USA phone 847-480-6349; fax 847-480-9282 e-mail: cbehdqts@aol.com; <http://www.sdsc.edu/cbe/>

National Association of Science Writers (NASW) PO Box 294, Greenlawn, NY 11740, USA phone 516-757-5664; fax 516-757-0069; <http://nasw.org/>

Society for Technical Communication (STC) 901 N. Stuart Street, Suite 904, Arlington, VA 22203-1854, USA phone 703-522-4114; fax 703-522-2075 e-mail: stc@tmn.com; <http://stc.org/>

for an American Association for the Advancement of Science Mass Media Science and Engineering Fellowship, which places science and engineering graduate students in summer positions. I landed in Portland, Oregon, writing weekly articles for *The Oregonian*, covering the fate of medical waste, how elephants communicate over great distances, the use of ion-beam techniques to measure pollution, and string theory. Just before I embarked on that endeavor, puzzled colleagues first asked, "Why are you doing this?" My only thought was, "Why wouldn't I?" I had to follow my heart. Luckily my thesis advisor supported that view, though he did refer to those times as my "science-writing days," fully thinking he was humoring a temporary whim.

After the summer program, I returned to graduate school. However, when the time came to look for jobs, instead of interviewing with IBM, Intel, Sandia National Labs, or Arizona State, I interviewed with physics journals, scientific-book publishers, university news offices, and professional associations. The Materials Research Society was a perfect match for me. I had already been a member of MRS for several years, had presented papers at meetings, and had saved every *Bulletin* issue since I joined. The sci-

ence-writing days stretched into years, and here I stay.

This job is a new adventure every day as I follow the dynamics of research: semiconductor feature sizes shrinking by Moore's law, magnetic-storage density increasing even faster, high-temperature superconductors and fullerenes bursting onto the scene. Everything I read is a lead to an article: Plane crashes described in the local paper hint at materials science in forensics. Advertisements for sports equipment play to new materials innovations. Even the ice cream crystallized in my freezer speaks of materials processing and aging. As I compose this on my laptop computer, I anticipate a larger, clearer screen with the next innovation cycle. It is my job to know everybody's business and to find the appropriate experts.

Surprisingly, I use my background more than one might expect. Those early fundamentals apply to almost every topic that crosses my desk, and my training is crucial to following new developments.

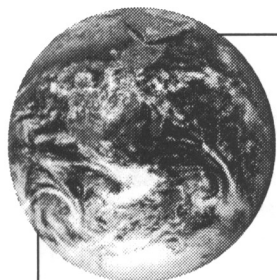
My job differs from that of a researcher in the lab. Vacuum leaks are not a prob-

lem; my crashed computer severing my e-mail lifeline to the worldwide materials community is. Instead of analyzing data, I'm changing Fahrenheit to Kelvin and distinguishing angstroms from amps. I'm using the *AIP Style Manual* instead of the *Handbook of Modern Ion Beam Materials Analysis*. And our monthly product cycle is tied to our printers, not to a manufacturing division. My counterparts are editors, customer-service representatives, and administrators.

I do miss the daily camaraderie of scientists. Attending conferences and visiting research laboratories infuses me with fresh ideas and inspiration, but that's no substitute for daily interaction with technical people down the hall. It is a continuing challenge to feed my own technical knowledge base and to continue to bring to my job not just an editor, but a materials scientist who acts and thinks like the readers we serve. Therefore I seek science outside my office and let it diffuse into my leisure time. I attend lectures and engage my friends in technical conversations outside of work. I tie up the phone and e-mail lines maintaining my network of colleagues. And my periodic table is still tacked on my office wall, reminding me who the players in materials science really are.

ELIZABETH L. FLEISCHER

Career Clips explores the range of career possibilities in, or related to, materials science.



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