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FEATURES

NEWS

COLUMNS

WHAT DOES THE FUTURE HOLD FOR SCIENCE JOURNALISM?

by Cristine Russell

The weekly Health & Science section of the venerable *The Baltimore Sun* was a relative newcomer to the world of weekly science sections. Started only two-and-a-half years ago, it was touted by the paper's new editor, Timothy Franklin, as a way to take advantage of Baltimore's status as a beacon of scientific and medical research. In an interview last August with *The New York Observer*, Franklin said boldly that "*The Baltimore Sun* should be one of the best, if not the best, medical and science newspapers in the country."

But less than a year later, the Tribune-owned paper pulled the plug on the section. In a memo to his staff, Franklin announced that beginning June 7, 2007 the section would be combined with the paper's Today feature section on Thursdays in order to cut down newsprint costs.

"Our readers have consistently told us how much they value stories about medicine and personal health," said Franklin, adding that the change would preserve "a significant chunk of the health content." The announcement was noticeably silent, however, on the fate of weekly science stories: The orphaned non-medical science content would have to fend for itself for space.

The demise of *The Sun*'s weekly Health & Science Section marks the latest chapter in the rise and fall of stand-alone science sections. They rose to prominence in the late 1980s as a popular venue for in-depth science coverage, reaching a peak of 95 sections in 1989. Since then, they have been dropping in number and size, particularly among smaller papers. Those that remain have shifted dramatically toward softer consumer-oriented, "news you can use" medicine and personal health coverage and away from science topics like physics, astronomy, and earth sciences (The *New York Times*' Tuesday Science Times remains the giant exception). Thirty-four American newspapers listed weekly health and science sections in the 2005 *Editor and Publisher International Yearbook*, with more than two-thirds focused primarily on health.

The failing fortunes of science sections reflect the overall drop in science reporting resources in the nation's traditional print and electronic media. There are fewer jobs for staff science reporters and smaller news holes

Cristine Russell is a freelance writer, senior fellow at Harvard's Belfer Center for Science and International Affairs, and president of the Council for the Advancement of Science Writing. Her paper, "Covering Controversial Science: Improving Reporting on Science and Public Policy," can be found at ***www.ksg.harvard.edu/presspol/research_publications/papers/working_papers/2006_4.pdf****.*

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than in days of old when many of us got started in the newspaper business. As travel budgets grow tighter, there are fewer enterprise projects. Around-the-clock coverage and multimedia challenges add to the pressures on serious science coverage.

So what does the future hold for science journalism? As part of a fellowship project at Harvard's Kennedy School of Government, I have been pondering the fate of our field in the face of unprecedented changes in mainstream journalism in general, particularly in light of drastic declines in newspaper revenues and readership.

The failing fortunes of science sections reflect the overall drop in the science reporting resources in the nation's traditional print and electronic media.

Despite much hand-wringing about the viability of print media as we have known it, I see some signs for optimism about the state of 21st century science coverage:

• ***Science is at center stage in an ever-growing array of complex and often controversial public policy issues***. Stem-cell research, global warming, teaching of evolution in the schools, bioterrorism, and the rise of new global diseases, from HIV to avian flu, are but a few examples. Covering these issues will require more journalists who are skilled in reporting both the underlying complexity of new science and technology developments as well as the legal, ethical, and political ramifications of their uses.

• ***Science, in the broadest sense, is increasingly being covered in a variety of beats, including education, business, investigative reporting, religion, agriculture, politics, and foreign coverage***. The business pages or cable channels are as likely to include science-based topics, from green technology to new drug development, as the main news sections or shows. We need to expand our definition of "science writer" and reach out to other reporters who may find themselves writing an occasional or regular science, medical, or environmental story. Science writing groups and journalism programs should provide skills training for all journalists, not just those that already identify themselves as science writers. Similarly, science writers need to expand their horizons, and job opportunities, by embracing coverage of science in the larger context of societal and public policy issues.

• ***Scientists, and scientific organizations, are more willing than ever before to jump into the fray of media coverage***. Institutional public information offices as well as scientific professional organizations are promoting media training and outreach for scientists. One of the best models for empowering media-shy researchers is the Stanford University-based Aldo Leopold Leadership Program, in which academic environmental scientists participate in two week-long seminars on communicating science to the public and policy makers. The Council for the Advancement of Science Writing offers "brown bag" briefings by science journalists for scientific audiences on dealing with the media and improving science communication to the public. In an ironic twist, a recent program sponsored by CASW and Sigma Xi (The Scientific Research Society) at the Duke Institute for Genome Sciences and Policy received instant online commentary from a scientist in the audience, Bora Zivkovic, whose "Blog around the Clock" is a good example of the blurring lines between scientist and science writer. Of course many scientists and physicians have themselves become media celebrities with popular books, television appearances, and websites of their own.

• ***The public remains strongly interested in science, but the news media needs to do a better job of making science accessible and understandable***. Limited basic science education leaves many people unable to sort the wheat from the chaff. Science reporters have a strong role to play in filling the gap. The public still turns to television most frequently, but the Internet has inched out traditional print media as a primary source of science information, according to a recent national survey for the Pew Internet Project. Overall, it found about 40 percent of Americans say they get most of their science news from television and 20 percent from the Internet. Magazines and newspapers lagged behind at about 14 percent each. Not surprisingly, young adults are shifting even more quickly to greater reliance on the Internet for news and information about science (and everything else).

• ***New media offer tremendous opportunities for expanding science coverage and commentary on a 24/7 basis***. Traditional mainstream print and electronic media are trusted brands with strong potential to capture new audiences with content-rich online health and science resources. National Public Radio's health and science web page, for example, offers a potpourri of NPR news feeds, podcasts, AP stories, research news, books on science, blogs, and special features, such as a year-long Climate Connections series on global warming, that allow consumers to read or listen on their computers or portable media players at their convenience. An eclectic portal into the blogosphere is **ScienceBlogs.com**, which bills itself as the "largest online community dedicated to science." Since its launch in early 2006, the community has grown to 65 blogs written by science writers and scientists alike on everything from basic science to politics. Headliners include Matt Nisbet's "Framing Science," Chris Mooney's "The Intersection" and Carl Zimmer's "The Loom." The combined blog site has attracted nearly 500,000 reader comments. For those who want to catch up, there is already a compila-

tion out called *The Open Laboratory: The Best Writing on Science Blogs 2006*.

• ***The ranks of new science journalists continue to grow, as science journalism programs turn out hundreds of graduates each year who are versed in scientific and technical writing***. A new University of Wisconsin online directory of science communication courses and programs identifies 44 colleges and universities that have programs or courses, including 23 for undergraduates and 36 for graduate students. About half are programs that provide the full training experience and, increasingly, they favor students with a science background, says Professor Sharon Dunwoody. But interests have changed. "Students who professed an interest in newspapers a decade ago have dwindled to nearly zero," notes Dunwoody. Her 2007 science-writing students "expressed an interest primarily in web work," including blogs. Journalism programs need to do a better job of teaching all their students how to evaluate evidence, statistics, and surveys, which are a part of most beats.

Despite much hand-wringing ...some signs for optimism about the state of 21st century science coverage.

• ***Mid-career training programs, from fellowships to workshops, offer a chance to retool skills in both journalism and science***. The Knight Science Journalism Fellowships program at MIT will soon celebrate its 25th anniversary; MIT also offers short boot camps on topical science issues. The University of Southern California Annenberg journalism program is launching a new mid-career fellowship in science and technology and also runs health journalism seminars for the California Endowment. USC's Knight New Media Center held a seminar last spring on best practices in science writing online. Kaiser Family Foundation sponsors media fellowships for American and international journalists interested in health reporting. Journalists can also experience scientific and environmental research in the lab and field with fellowships at centers such as the Marine Biological Laboratory in Woods Hole, Mass. Of course, NASW's annual meeting, held in combination with CASW's New Horizons in Science program, offers another opportunity for continuing education. MSNBC's Alan Boyle and I have organized an NASW workshop at the upcoming Spokane meeting on "21st Century Science Writing" that focuses on multimedia tools for telling science stories on the web. Our sister organizations in environmental reporting and health care journalism offer their own forums for professional education.

• ***Science writing is increasingly global. American journalists have always traveled the globe to cover science, either on the ground or at international meetings***. Now international journalists are flocking in ever-larger numbers to the American Association for the Advancement of Science annual meeting. International science writers also talk shop under the auspices of the World Federation of Science Journalists, an association of 36 national, regional, and international groups founded five years ago. It provides an important new forum for global networking, including an international conference last spring in Melbourne, Australia. As part of a mentoring project set up by the World Federation, NASW, with support from CASW, plans to bring all five board members of the Arab Science Writers Association—three from Egypt, one from Yemen, and one from the United Arab Emirates—to the Spokane science writing meetings in October. They plan to present their own workshop on science writing in the Middle East.

• ***Science media coverage is scrutinized more than in the past, thanks to the Internet. We used to meet and work in newsrooms but often did not see each other's coverage***. Today we chat about our craft online, assisted by excellent websites and blogs that do their own version of media peer review. Ideally, the exposure, and feedback, will lead to better coverage. The MIT Knight Science Journalism Tracker dissects daily science coverage from around the world with an eye to having writers and editors "better evaluate and improve their own performance." Sigma Xi sends out a daily and weekly "Science in the News" electronic newsletter with links to newspaper and magazine science stories as well as various science blogs. The award-winning **HealthNews Review.org** website is an ambitious attempt to improve the accuracy of print and television news stories about medical treatments, tests, and procedures. Modeled on an Australian website, it has a tough grading system with a team of outside reviewers (pity the poor reporter who gets only one out of five stars!). Individual news organizations are also promoting their coverage online; the *Los Angeles Times* sends out a daily e-mail called "The Science Files" featuring its top science, medical, and environmental stories.

Despite these encouraging signs, the challenges ahead for science journalism are daunting nonetheless. They include:

• Infusing new media efforts with some of the old-fashioned values of traditional science coverage
• Doing more with fewer resources and less time
• Juggling complex science information with storytelling skills that will engage the reader, listener, or viewer (competing against coverage of the latest celebrity antics)
• Putting controversies involving science and public policy in a broader context and avoiding the "dueling scientist" stories of old

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THE GREAT TURTLE RACE ...A *REALLY* DIFFERENT KIND OF JOURNALISM

by Jane Ellen Stevens

Fifteen years ago, if I had done a story about the plight of the gigantic, ancient Pacific leatherback turtles, 90 percent of whose numbers have disappeared, it would have appeared as a 4,000-word magazine article. Up until last year, it would have appeared as a multimedia story: some combination of video, still photos, audio, graphics, and text.

In April 2007, the story appeared as The Great Turtle Race (**www.greatturtlerace.com**). Its main focus was a game: 11 leatherback turtles outfitted with satellite transmitters, swimming from their nesting beaches in Costa Rica to the Galapagos.

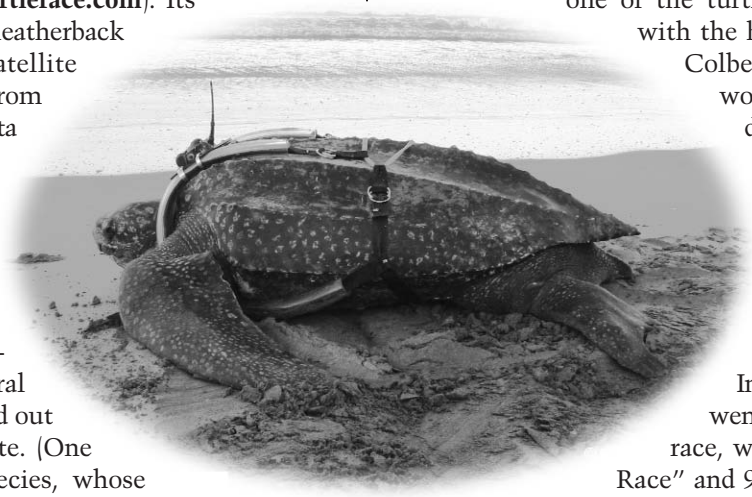

PHOTO © GEORGE SHILLINGER, COURTESY OF GREATTURTLERACE.COM

It was about as real as a leatherback turtle race can get. Researchers put satellite tags on the female leatherbacks nesting on Costa Rican beaches, as they have for several years in their efforts to find out where leatherbacks migrate. (One way to help save the species, whose Pacific population is likely to disappear in 10 years at current rates, might be to designate migration corridors where fishing fleets, which kill a lot of turtles accidentally, cannot operate.) Computer programmers zeroed-out the turtles' departure times from the beaches (a la Tour de France). Working with a graphic designer, they animated the turtles' journey. The turtles "raced" from Costa Rica to the Galapagos, where they turn south on a four-year migration to feeding grounds off the southern coast of Chile. The turtles' progress was updated every ten minutes on the website.

The site had several parts.

- **Meet the Turtles**: Background on the turtles (only on the web can you have a three-side flip card);
- **Leatherback World on the Brink**: In-depth multimedia stories about satellite tagging, leatherback physiology, nesting, researchers, and what was killing the turtles;
- **Turtle Champions**: Brief profiles of people involved in saving leatherbacks;
- **Sea Turtle School**: A page with educational modules and blogs; and
- **How Can I Help?**: A page that provided information about how to get involved in making sure the Pacific leatherback turtle population doesn't disappear.

The most traditional journalism could be found on "Leatherback World on the Brink." But even that had a twist: The storyteller was Ms. Leatherback, a sassy, giant female who'd laid several batches of eggs on the sands of Playa Grande, Costa Rica, over the last decade.

During the two-week race, the website—a collaborative effort of Tagging of Pacific Predators (**www.topp.org**), the Leatherback Trust, Conservation International, Yahoo!, and Costa Rica's environmental agency—received three million hits from 650,000 unique visitors. We named one of the turtles Stephanie Colburtle, with the hope that comic Stephen Colbert ("The Daily Show") would notice. He did—and did four comedy bits about Stephanie. Conservation International interested enough radio, TV, and news organizations that they reached 137 million pairs of eyes worldwide with their stories. In the blogosphere, the race went viral. One week into the race, we Googled "Great Turtle Race" and 97,000 results popped up. We looked way out, into the 300s and 400s, and the references were still about the race.

Why was this site so engaging? It embraced everything web: it was interactive, participatory, solution-oriented, immediately accessible, updated several times a day, visual (videos, photos, charts, maps), and animated. It seeded and linked social networking, and had lots of context and continuity. It was useful (to teachers and students using it as an educational tool) and entertaining (to the betting community…it was featured on **PartyBets.com**).

It even had a business model: Companies paid $25,000 each to sponsor a turtle. In this case, the money didn't go to pay the salaries of the journalist, computer programmer, and graphic designer (the web-centric journalism triumvirate). Instead, it paid for the satellite tags and went into a fund to buy parts of the turtles' nesting beach.

We've applied what we learned in the Great Turtle Race to **topp.org**, a new site for Tagging of Pacific Predators, the research project that led the Great Turtle Race (and where I'm reporter, editor, copy editor, fact-checker, everything but a graphic designer, thank goodness). **Topp.org** has an interactive, animated map that's updated nightly, a downloadable (to blogs and MySpace pages) animal widget with an RSS feed that updates

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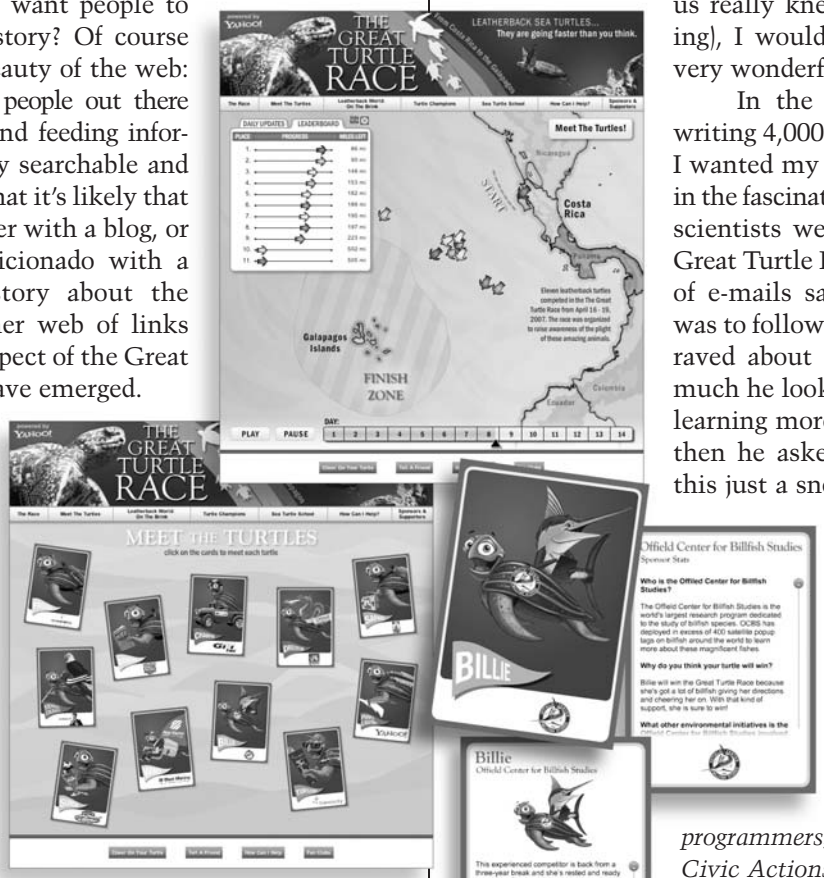
nightly with the animal's speed and distance traveled, a photo of the day, researchers' blog, ocean news, ask-a-researcher, and a feature story. Future plans include a way for people to submit their own content, including videos and photos, and a way for people to download the widgets on their cell phones. That was one of the first requests we had.

We're also using social networking to tell the stories of the satellite-tagged animals. Omoo, the white shark, and Penelope, the elephant seal, have Facebook and MySpace pages. The turtles have MySpace pages. When I checked last, Penelope had 297 friends. (I have only 72.) Omoo is a member of several anti-shark-finning groups that are springing up on campuses.

Is the Great Turtle Race science journalism? Eight months ago, I would not have seen it. And now, I'm beginning to see how explanatory science journalism in particular can use games (in this case, a race) and social networking, as well as multimedia storytelling to engage people in ways that are very compelling.

There are limits, however. If a scandal erupted in the Great Turtle Race…e.g., if it was revealed that an underhanded researcher substituted a loggerhead for a leatherback, would I want people to rely on me for the story? Of course not. But that's the beauty of the web: There are so many people out there who are connected and feeding information to this readily searchable and accessible medium, that it's likely that a reporter, a researcher with a blog, or a marine biology aficionado with a blog would do a story about the "scandal" and another web of links relating to another aspect of the Great Turtle Race would have emerged.



What's clear is that science journalism has to figure out a new way to survive. As news organizations shrink their staffs and lay off their science writers in their efforts to maintain 20-percent profit margins, science has become less and less a part of the general conversation. These days, that's not a good thing. Scientific institutions have an opportunity to hire science journalists to build communities, and to provide them with information and stories that educate and inform by using all the tricks that the web has up its sleeves.

It's all about building community now. In the good ol' traditional days, news organizations had built-in communities. Since a handful of these news organizations were literally the only games in their towns, they didn't have to worry about their communities leaving them. Now those communities are fracturing and reforming, around issues and interests. At the core of these communities are those who are directly involved. They are surrounded by adamant supporters or detractors. Around these form concentric circles of ever less-interested and involved people, occasionally as participants, usually as interested observers. As these cells of communities spin through time, they shed and gather members, bounce off other cells, sometimes merge with them and occasionally divide. The conversation's always churning along. Sometimes journalists lead the conversation, sometimes they sit back and provide background and analysis, and sometimes they have figure out how to get a word in edgewise, because they know the community needs a bit of information or a story to move toward solution.

Confusing….oh, yes. But if I hadn't jumped in with both feet and tried out this new thing (and none of us really knew what we were creating), I would have missed out on a very wonderful "aha!" moment.

In the days when I was still writing 4,000-word magazine articles, I wanted my stories to engage people in the fascinating and important things scientists were learning. During the Great Turtle Race, we received dozens of e-mails saying how much fun it was to follow the turtles. One student raved about the race, and said how much he looked forward every day to learning more about the turtles. And then he asked….by the way, wasn't this just a sneaky way to learn about science?

Oh, yeah! ■

Principal contributors to the Great Turtle Race site: Valerie Krist, TOPP graphic designer; George Shillinger, TOPP researcher; James Ganong, Alan Swithenbank, TOPP programmers; Jacob Singh, Sam Lerner, Civic Actions; McCann Erickson, Salt Lake City; Beaconfire, Arlington, Vir.; James Spotila, Leatherback Trust; Jason Bradley; Diane Richards; Lisa Bailey, Conservation International; Yahoo!

IMAGES COURTESY OF TAGGING OF PACIFIC PREDATORS (TOPP.ORG) AND THE GREATTURTLERACE.COM.
"THE RACE" DESIGN BY VALERIE KRIST. "MEET BILLIE" CARDS DESIGN BY MCCANN ERICKSON, SALT LAKE CITY.

ONLINE VIDEO TRANSFORMING THE PERCEPTIONS OF SCIENCE

by Matthew Busse

A glowing cloud of plasma pulses as it deposits gold nanoparticles onto a sheet of carbon nanotubes. Frédéric Demoisson stands in front, describing for the camera the pressure chamber that he built for the job. But this isn't just any science documentary. The camera is held by one of Demoisson's lab mates, and the resulting video will be posted on YouTube.

Demoisson and his colleagues at the Free University of Brussels (ULB), in Belgium are taking part in a project called Nano²hybrids, the first reality series to feature scientists as its stars. He is one of 15 scientists scattered across Europe taking part in Nano²hybrids, which will follow these researchers as they try to fuse metals with nanotubes to create hybrid materials that could function as ultra-efficient gas sensors. The goal is to convey the exciting and human aspects of scientific research.

The project is funded by the European Union and the UK-based non-profit Vega Science Trust, which itself broadcasts free science clips over the Internet. Far from being alone, though, it is one of a host of new science websites experimenting with videos starring scientists, from glimpses of life in the lab to debates between luminaries.

Some aim to bring science to lay web surfers straight from the horse's mouth, while others are hoping to change the way science itself is done by making research easier for other scientists to reproduce (see "Do Try This in Your Lab"). All have the power to present a more realistic picture of how the process of science occurs.

TV is already the dominant format for communicating science. In November 2006, the Pew Internet and American Life project, based in Washington D.C., found that it is the general public's number one portal for science information, with the Internet a close second. However, with the rise of broadband Internet connections, people are increasingly getting their video fix, and that means science communicators have to keep up. "We have to be looking pretty closely at online video as an outlet for the public understanding of science," says Stewart Wills, online editor of the journal *Science*.

Online video also presents opportunities that don't exist in printed outlets or traditional broadcasting. One is the ability to bring the scientific process to life, as the Nano²hybrids team is showing with video updates from the lab. The show's scientists hope this record of their experiences during the three-year project will breathe life into work that would otherwise be publicized only in jargon-filled research papers.

"Real science, when it's happening, is very much alive, there's things that are working, things that are not, problem solving, and there's all the social elements of science, what we're doing and how we're doing it together," says Nano²hybrids science communications coordinator Chris Ewels, who works at the French national research agency CNRS, in Nantes.

Another venture capturing the human aspect of science using video is the Global Education Outreach for Science, Engineering, and Technology, a site created by Nobel prize-winning chemist Harry Kroto at Florida State University, in Tallahassee. He wants to bring videos of scientists talking about their work into schools, and says that teachers could show the GEOSET videos during class to illustrate the scientific process. "We've been bleating for too long about the fact that there are no science teachers," Kroto says. "Well, let's work with the teachers we have and make available to them a cache of science education presentations or materials they can use in the classroom."

…one of a host of new science websites experimenting with video starring scientists…

Another advantage of online video is that, unlike traditional broadcasting, there is no limit on how much footage you can post, allowing viewers to control their intake and often to better understand the background to the research.

"On the web, you can put out a huge amount of content, which allows people to get the full context in which information is presented," says Roger Bingham, a cognitive scientist at the University of California, San Diego, and director of the online science video site The Science Network (TSN). "We wanted to create a site where people can actually look at the information as it came out, uncut, unedited, and make their own decisions." Freeing scientists from what he calls "the tyranny of the sound bite" has the potential to deepen the public's understanding of science, he adds.

TSN, which is funded by contributions from various foundations that support science education, such as the National Science Foundation, aims to deepen the public understanding of science by providing free science videos. Rather than filming scientists in the lab, the organization instead brings together experts and encourages them to have a discussion on issues of science and social policy. It records the debate, then posts the videos online.

One highly successful TSN video was the unedit-

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Do try this in your lab

Internet video is changing how scientists communicate not only with the public, but also with each other.

For several years scientific journals have posted video animations of data online. However, these movies have usually been only a few minutes long and devoid of explanation. Now two websites are using video to improve the quality of communication between researchers.

SciVee (**www.scitube.tv**), launched in June, is designed as a "YouTube for scientists." Researchers post a 10-minute video describing the salient findings of their paper. Viewers can then watch the video using software that synchronizes it to the relevant section of the paper.

SciVee's creator, Phil Bourne, a pharmacologist at UCSD, hopes that the site will spark more interest in online social networking among scientists. He laments that the "energy and creativity" surrounding such sites have "largely passed over science."

Online video might also make research more transparent and reproducible. That's the aim of the Journal of Visualized Experiments, or JoVE (**www.jove.com**). Launched in October 2006, it features videos of scientists explaining how they did their experiments. By offering a collection of how-to videos, JoVE will make it easier for scientists to repeat others' work.

According to JoVE's Boston-based editor-in-chief, Moshe Pritsker, scientific publication now plays such an important role in a scientist's career that it has overshadowed its original purpose. "What we are trying to do is improve its original role, which is reporting the science, how it is done," he says.

Although it is too soon to judge what impact SciVee and JoVE will have on the scientific process, their potential to improve communication is huge. "A lot of the persuasion and demonstration of scientific ideas, on a scientist-to-scientist level, happens in the context of scientific meetings. In some ways, you can view sites like these as decentralized scientific meeting places," says Stewart Wills, online editor of the journal Science, based in Washington, D.C.

At the Massachusetts Institute of Technology, researchers are being encouraged to post video footage of their work to a "beta" version of a video site called TechTV. MIT declined to comment on the site because it is not ready for the public, but the site says its mission is to "support community."

ed footage from a symposium the organization hosted in November 2006 entitled "Beyond Belief: Science, religion, reason and survival." Featuring vocal atheists such as Richard Dawkins and Lawrence Krauss, it attracted a storm of media attention. For those not able to attend, all 15 hours of the debate went up online, and so far more than half a million visitors have downloaded it.

The event also highlighted another advantage of online video: the ability to combine it with online communities. After downloading and watching TSN's recordings of Beyond Belief, 22-year-old Ezadkiel Marbella founded a group for discussing the symposium on the popular social networking site FaceBook. "I wanted to create a hub of what people thought about the issues that were discussed in the videos on the website," says Marbella, who studies software development at Seneca College in Toronto, Canada.

Online broadcasting will broaden the public's understanding of science only if the videos are accurate and reliable. One downside to video sites like YouTube and Google Video is that anyone can post a video claiming to present scientific information without validation. However, that only emphasizes the value of sites run by and featuring scientists, such as the Science Network and Nano^{2}hybrids. Of TSN, Marbella says: "You can trust what the people are saying. This is the expert, talking about what the expert knows." ■

"Online video is transforming perceptions of science," New Scientist*, July 11, 2007. This article has been reproduced with permission from New Scientist © Reed Business Information.*

SCIENTISTS PRESENT A POSTER SESSION FOR THE PUBLIC

by Sara Ball

Earlier this year, Geoffrey Coates, Cornell University professor of chemistry and chemical biology, received a $10,000 award for his poster describing a new route for synthesizing polyesters from renewable resources. But it wasn't this novel science that made him a prizewinner; it was his ability to communicate the science to a lay audience of business and industry leaders, community members, and retailers, many of whom did not have a scientific background.

"I am a strong believer that the taxpayers who support our science have a right to know how it

Sara Ball is a recent graduate of the science communication graduate program at Cornell University.

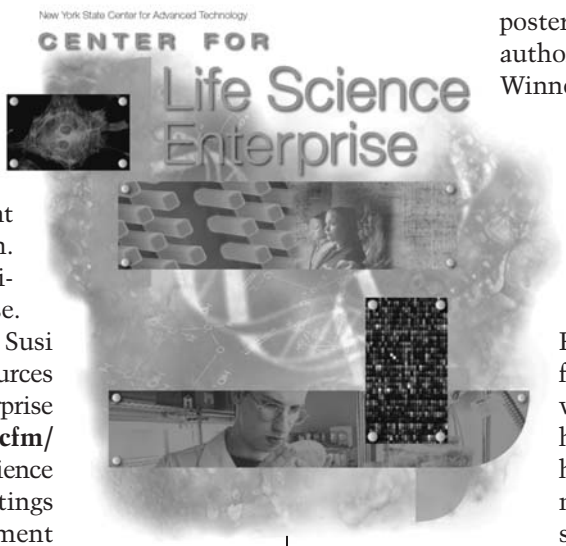


IMAGE COURTESY OF CORNELL UNIVERSITY, CENTER FOR LIFE SCIENCE ENTERPRISE

could be of benefit to them," said Coates.

All too often scientists are accused of being too busy, too convoluted, or too uninterested in public outreach for journalists to easily extract pertinent information about their research. The Cornell University public science symposium proved otherwise.

It all began last fall when Susi Varvayanis, director of applied resources for the Center for Life Science Enterprise (**www.biotech.cornell.edu/index.cfm/page/cat.htm**), came to one of the science communication lab group meetings with a vague but daunting assignment to "do something good for science communication."

Gina Eosco, a fellow science communications graduate student, and I share the belief that scientists are interested in sharing their work with the public but lack the confidence, resources, or opportunity to contribute. We readily accepted Varvayanis' challenge.

Under the direction of graduate advisor Prof. Bruce Lewenstein and Center for Life Science Enterprise director Kelvin Lee, the three of us (Varvayanis, Eosco, and I) got to work.

Armed with a common perspective, an active NASW online discussion group, and a model survey from the Royal Society, London, we developed and administered a survey to Cornell faculty to reveal what factors facilitate or impede their participation in public engagement of their research. The goal of the survey was to target resources and develop programming for innovative and effective public engagement. Meanwhile, we interacted with science communication enthusiasts around the world who encouraged us to make our survey efforts more visible.

That was when the idea for a public symposium came into play.

The Center for Life Science Enterprise holds a poster session each year for its grant recipients as a requirement of the funding process. This year the poster session had a different spin: Scientists presented their grant-funded research to a lay audience in the form of a contest with a handsome prize and judged by community members.

Twenty-one judges from the Ithaca and surrounding communities participated in the public science symposium on May 14. They represented businesses such as Ithaca Bakery/Collegetown Bagels, TCAD (Tompkins County Area Development), Wegmans Food Markets, and the Ithaca Sciencenter, to name a few.

Posters were judged on technical aspects, message clarity, accessibility of graphics, creativity, and overall engagement value. Judges spent time viewing the posters first and then talking with the authors who answered any questions. Winners were announced at a reception.

Richard Gallagher, editor and publisher of *The Scientist*, gave the keynote speech highlighting the importance of engaging with public audiences. A lively panel discussion, moderated by Center for Life Science Enterprise director Kelvin Lee, received very positive feedback from attendees, some of whom declared they would have happily sat through several more hours of it. Cornell faculty panel members Graeme Bailey (computer science) and Steven Strogatz (theoretical and applied mathematics) were joined by Paul Bartishevich, founder and president of Finger Lakes Productions International, an organization providing syndicated science radio programming to over 500 stations in more than 50 countries. Panelists revealed their role-model science communicators and shared ideas on advising students, presenting interesting seminar talks, and creating 90-second radio bites.

In addition to the $10,000 grand prize (in the form of a grant extension) that Geoffrey Coates received, a $1,000 travel award was made to Gary Harman (horticultural sciences and plant pathology, N.Y. State Agricultural Experimental Station), for his tactile poster demonstrating oil spill products being produced from agricultural byproducts. Finalists were C. Drew Harvell (ecology and evolutionary biology), with an aesthetic tour of corals turned to antifungal compounds, and David Putnam (chemical and biomolecular engineering), with a very accessible description of an innovative controlled drug-delivery technology.

Scientists presented their grant-funded research to a lay audience in the form of a contest with a handsome prize...

Scientists, who may have normally sent graduate students to present in their places found it informative to discuss layman accessibility with others outside their own discipline. Judges appreciated being exposed to cutting-edge science and, through their efforts, contributing to public communication of science. We were gratified to receive uniform positive feedback from all participants about the event.

Varvayanis compiled judges' responses and gave

personal feedback to each scientist who entered a poster. Although there were no serious undertones of cutthroat competition this year, feedback indicates that we should be prepared in the future for participants with a taste for competition and a heightened expectation about the contest.

This science communication effort produced an event in which scientists found communicating with the lay public to be an enjoyable and effective activity. The public science symposium touched those who directly participated and our survey touched an additional 350 faculty member respondents (at least for the 10 minutes or so it took to complete the survey). Their responses are already helping us find more effective ways to encourage science communication at Cornell University.

We see this event and the university-wide survey as the beginning of an ongoing effort to increase the salience of science communication, break down boundaries between scientists and the public they serve, and increase public engagement in scientific research. Our hope is that this becomes an annual event at Cornell and that other institutions will adopt a similar tradition. Efforts are also underway to refine the survey and distribute it to a broader audience so it can be used to develop programs on other campuses and in other organizations. ■

Other recent books on global warming

An Inconvenient Truth: The Planetary Emergency of Global Warming and What We Can Do About It by Al Gore

The Atlas of Climate Change: Mapping the World's Greatest Challenge by Kirstin Dow

Field Notes from a Catastrophe: A Frontline Report on Climate Change by Elizabeth Kolbert

Heat: How We Can Stop the Planet Burning by George Monbiot

The Last Generation: How Nature Will Take Her Revenge for Climate Change by Fred Pearce

The Revenge of Gaia: Why the Earth Is Fighting Back—and How We Can Still Save Humanity by James Lovelock

The Rough Guide to Climate Change (Rough Guides Reference Titles) by Robert Henson

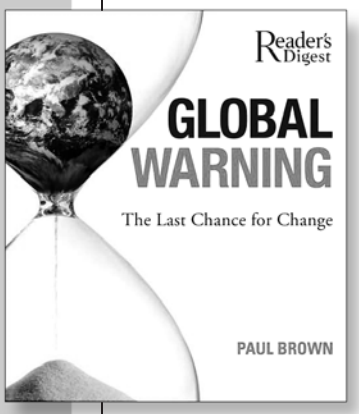
Six Degrees: Our Future on a Hotter Planet by Mark Lynas

WHEN ISSUES WARRANT THE JETTISON OF PROFESSIONAL DETACHMENT

by Valerie Brown

Arguments abound as to whether science writers who cover the environment have sufficient detachment from their subject, especially in the U.S. It's less of an issue in Europe, where the biases of news outlets and their writers are taken in stride. But when it comes to global warming, many science writers—wherever they are—think its overriding importance trumps any commitment to a false objectivity requiring equal time for skeptics. Paul Brown, author of *Global Warming: The Last Chance for Change**, is firmly in this camp.

Of his 40 years in journalism, Brown spent the last 16 as the environment reporter for the British newspaper *The Guardian*. For his first environmental story in the early 1980s, he volunteered as a crew member on a Greenpeace ship. Later, when *The Guardian*'s science writer got sick, Brown substituted on an assignment about nuclear power. And when he returned from another Greenpeace stint, in Antarctica, he found the paper had created a new beat—the environment—to which he was officially assigned. Brown left his environment post at *The Guardian* in 2005 but continues to freelance for the paper, writes a column for *House and Garden Magazine*, and teaches journalism under the auspices of the United Nations Environment Program and the Guardian Foundation.



Several years ago, Brown was approached about a book project by Dakini Books, a quirky London-based company whose previous titles include an international guide to spas, a history of cricket, and a book about Bollywood.

"It was a lucky moment to be asked because I was sort of poised," he said. "I've had to keep up to date with both the science and the politics [of climate change], so….

*Global Warning: The Last Chance for Change *(British Edition, Dakini Books, 2006)*
Global Warning: The Last Chance for Change *(U.S. Edition, Reader's Digest Books, release date: Nov. 2007)*

Freelance writer Valerie Brown first met Paul Brown (no relation) in Albania in 2002. An Oregon resident, she writes primarily about environmental health and climate change for such publications as Environmental Health Perspectives, Science, *and* High Country News.

I've got all this research on my desk and in my head and in my cuttings which was crying out to be written down."

For some time Brown had been aware of the cognitive dissonance familiar to anybody who covers the subject.

"The situation over the last 15 to 16 years has been getting more and more complicated because the science is advancing very fast. And it's perfectly clear that scientists are now well ahead of the thinking of politicians. The politicians acknowledge climate change in Europe particularly, and have done for some time, but their actions are well short of what is required. And it's very hard to point this out on a regular basis in news stories. A book gives you an opportunity to let rip with information you feel the public ought to know. I think there's still an obligation for discipline. You still need to stick to the point…[but] you can let go the inhibitions of 2,000-3,000 word articles and really have a go at it."

Given the urgency of the subject, Brown felt it necessary to jettison some of his professional detachment.

The public is concerned and the scientists are concerned… and somehow journalists and politicians are failing to make the connection…

"As a journalist your training is always to report other people saying things and to remain neutral, but we've got ourselves into such a dire situation now that I felt I couldn't be neutral any more, so I wanted to point it out in my own words."

The rapid pace of global warming science raises the risk that books about it are obsolete almost as soon as they're published. But, Brown observed, the trend of global warming research has been relentlessly negative—that is, since the book came out in 2006, "there isn't anything that has happened which has made things better than I thought they were."

However, he has subsequently found some modest bright spots. "I think I was slightly less positive about China than I would like to have been, because I have since been there and they are doing a great deal to develop technologies. When I went to the Great Wall from Beijing, every street light in the two-and-a-half-hour journey was solar powered, which I thought was remarkable. We don't see that in Europe."

Brown gives blunt advice to science writers who may wonder what else—short of book writing—they could be doing in communicating on global warming issues.

"I think it's time that journalists start addressing the issue of climate change as a political problem. We are all, as journalists, failing to do that.…The public is concerned and the scientists are concerned…and somehow journalists and politicians are failing to make the connection—maybe because [now that] all politicians agree that climate change is a problem, it's not a problem"—that is, acknowledging it as a problem may relieve some political pressure, but such lip service is not accompanied by action. "The issue is what the bloody hell are they going to do about it? The answer is nothing.… It's going to kick us very hard, very soon. We are sleepwalking to disaster." ■

THE FUTURE *continued from page 4*

Last but not least, the expanding ranks of science freelancers have to face the additional challenge of combining business and journalism skills in order to cobble together a living. More than 40 percent of NASW members are now freelance writers, compared to only about four percent who are on staff at newspapers; two percent at popular magazines; and one percent in radio and television.

As we look to a future in which newspapers and news magazines are endangered species, and where the science journalists who survive become octopus-like multimedia creatures, let's take a lesson from Frank Roylance, *The Baltimore Sun*'s 59-year-old science writer. When he started his career (on a manual typewriter, no less), newspapers ruled the news kingdom; today *The Sun* is struggling, his weekly science section is gone, and he is fighting again for daily space for astronomy and physics stories. *The Sun*'s science-writing staff is down a little, but seems to be holding steady now at about five.

"The whole staff feels beleaguered. It's not a happy time in the newspaper business," admits Roylance, a veteran of the defunct *Evening Sun*. "I have to be pessimistic about the future of print news."

But there is a silver lining: Since 2004, Roylance has been a pioneering weather blogger. His online column is one of *The Sun*'s most popular online features, with 6,000 to 10,000 hits a week (swelling to 30,000 or so when hurricanes or snow storms strike). He also answers readers' online questions and infuses the column with weather history, science, and backyard astronomy. "I find it fascinating and something that everyone relates to," says Roylance.

"We're feeling our way. A lot of us are older than the average reporter," says Roylance. "But I am fairly excited about the possibilities of newspapers as producers of online science content…It gives us an opportunity to go beyond what you get in the newspaper, with links to videos, photos, graphics that aren't as easily done in print. I did a story on the Perseid meteor shower in mid-August that ran on the weather page and online, and I was able to link to a photo gallery with meteors zipping through the sky." He is optimistic about the paper's web future: "It's opened up some pretty exciting things for us." ■

SCIENCE IN FICTION: MAKING ART REFLECT THE WORLD PRESENTED BY SCIENCE

by Rebecca Goldstein

Becoming a writer of novels, even novels fueled by science, was far from any destiny I would have chosen if you'd asked my younger self what it wanted to be. While I always loved fiction, as a child I thought of it as frivolous, pure make-believe. When I was given my first library card at the age of six, I even made a rule to try to keep the seductive things from enchanting me too thoroughly and making me go soft-brained.

Every time I visited the library I allowed myself to take out one work of fiction. To balance it, I had to take out a book that was good for me, something I could learn from. I forbade myself from reading the storybook before completing the good-for-me book.

But before long I stumbled on a good-for-me book every bit as enchanting as a storybook. It was called *Our Friend the Atom* by Heinz Haber, and I brought it home one Friday afternoon only because it seemed nutritious-enough fare to justify the Nancy Drew mystery that I'd chosen as dessert.

I never did get around to reading Nancy Drew. Instead, I reread *Our Friend the Atom* two or three times, marveling. That weekend, I learned the world was much further away than I had thought, that the world consists of multitudes of neighborhoods of spinning atoms, of protons, neutrons, electrons, and charges that came in three flavors.

I learned that there was a whole lot more happening out there than I'd had any idea about—and also less. The colors I thought I saw, the blues, reds, and yellows, must be in my mind, like dreams, because atoms were colorless. What else might be only in my mind then, and not "out there"? How could I ever know how things really were, I wondered.

The fact that science helps us distinguish between the way things seem and the way they are seemed extraordinary to me then—and now. This feeling grew as I became more sophisticated, culminating, perhaps, when I finally got to study relativity and quantum mechanics and saw how many of our deepest intuitions about the world fell dead and lifeless in front of modern science.

Rebecca Goldstein has received numerous awards for fiction and scholarship, including a MacArthur fellowship. Her non-fiction books are on Baruch Spinoza and Kurt Gödel. Her fiction includes The Mind-Body Problem *(Random House),* Strange Attractors *(Penguin), and* Properties of Light *(Houghton Mifflin). She is working on a novel,* The Afterlife of Skeptics, *on science and religions.*

Eventually, I embarked on a Ph.D. in philosophy, concentrating on philosophy of science. This makes sense to me. I have some serious explaining to do, though, at least to myself, about why in addition to being a professor of philosophy I am also a novelist. I once had a procedure to follow before I allowed myself those disreputable things, novels. How can I justify producing them?

I have come to believe, over the years, that literary fiction is remarkably suited to grappling—as philosophy and science grapple—with the difficulties of reconciling objective truth with inner points of view.

Science is always adding to, and sometimes changing, our views on what objective reality is like. When those modifications are radical, there is a time lag in bringing our world-view into line, and sometimes we never fully succeed. So it is that we have struggled to come to terms with, say, the devastation of our view of time that was wrought by Einstein.

I've always taken pleasure in Einstein's remark that if he were exceptional in anything it was as a fabulist.

Time is so fundamental a concept, not only in the objective scientific world-view, but in our inner worlds, where time flows ineluctably no matter what scientific revolutions may come our way. Almost all of our emotions —hope, fear, anticipation, worry, excitement, regret, nostalgia, remorse, resentment—presume the linearity of time.

Can we make art that reflects on the world with which we've been presented by our ever more powerful sciences? Can we explore what these discoveries mean in human terms? Richard Powers's *The Time of Our Singing* meditates on the non-linear notion of time in the very structure of the story he tells. I tried to do something similar in *Properties of Light: A Novel of Love, Betrayal and Quantum Physics*, though, as the subtitle signals, I dwell more on the disruptions to our natural ways of thinking prompted by quantum mechanics, by ideas such as quantum non-locality, and entanglement.

Relativistic time, quantum non-locality: abstract ideas indeed, and yet ideas that, once understood, radically transform one's take on the world, and one's take on oneself in the world. Can a novel's layered reality—striving to present not only the way things are, but the way things appear, the way things feel—help us to understand the human meaning of our scientific truths, the ways those truths can modify our view of ourselves in the universe?

More than ever, science is pushing at us from every side—not just physics but the behavioral sciences, genetics, and neuroscience—forcing us to revise what it means for us to be in the universe. It's the job of the novelist not

only to engage with that challenge but, more pressingly, to present what it feels like to be so engaged. The novel's wondrous capaciousness allows it to take on all of these dimensions in the quest towards knowing the world.

And science and art are not quite as far removed as the so-called "two cultures" often presume. We're not plunging our fists straight into reality in pursuing the sciences, but rather modeling reality. This modeling is an imaginative work. I've always taken pleasure in Einstein's remark that if he were exceptional in anything it was as a fabulist. As fabulists, both artists and scientists not only call on their imaginations but also rely on esthetic criteria of beauty and elegance to guide them in their work.

The fact that mathematicians and scientists so often appeal to beauty or elegance often comes as a surprise to nonscientists. When I write about scientific or mathematical ideas—not just in my fiction but in works like Incompleteness: *The Proof and Paradox of Kurt Gödel*—I always try to bring out the beauty of these ideas, not only to make them more appealing and palatable to non-scientific people, but simply because, well, they are beautiful, and beauty ought to be seen and admired as widely as possible.

Writing about scientific themes in fiction naturally means creating characters who are scientists. While the artist has often been represented in art as a hero, the scientist is rarely so. I happen to believe that there is something noble about the scientific enterprise, about submitting oneself to the discipline and openness to falsification, about the often single-minded passion.

There is something lofty and inspiring in the enterprise itself, and to the extent that people honestly and steadfastly engage in that enterprise, a bit of the loftiness can't help but cling to them. "There is a grandeur in this view of life," Darwin said, allowing himself an emotional response to his theory of evolution.

And so, I would argue, there is a grandeur in the lives of those who pursue a clear-eyed scientific view. I don't mean to idealize scientists as people. Of course, I know all about the pettiness and rivalry, the childishness and egotism that stubbornly cling, along with the grandeur, to the greatest of scientists. This only makes them more interesting to me as characters, though. Their very contradictions serve as a means to learn something interesting about human nature.

Ever since I finally gave in to the story-loving side of my own nature, I've felt myself lucky to be able to help myself to scientific ideas for my themes and characters, trying to do justice to the beauty of the theories, the grandeur (and pettiness) of the lives, hoping that by doing so I can draw the two cultures just a little bit closer to one another. ■

"Science in Fiction," New Scientist*, August 25, 2007. Reprinted with permission of the author.*

PHOTO © COMSTOCK / SUPERSTOCK

YOU CAN NEVER GO TEACH AGAIN

by Earle Holland

It's a quirk of human nature that, on growing old, we wish for the chance, just one last time, to do those things that brought us joy and thrills in our youth, to relive the times when we were young and strong.

For me, it would be just one more climb up a sheer rock wall, or one more jump out the door of a Huey helicopter, or climbing atop a trampoline to throw one more triple-back somersault.

With age, supposedly, comes wisdom, not to mention arthritis and limbs and joints that have seen far, far better days. So last fall, when out of the blue I was invited to return to the classroom to teach, it seemed like the proverbial trip back to younger days, an offer too good to refuse.

When I came to Ohio State University some three decades ago, I met Sharon Dunwoody, a young and all-too-energetic assistant professor of journalism. Sharon, for those not versed in the lore of American science writing, wrote the classic 1980 paper "Science Writing Inner Club" which for the first time painted a clear picture of how science writers really worked then.

Sharon taught a graduate course called Mass Media Science Reporting in what was then a fairly vibrant journalism school and, in short order, she'd invited me in to give a talk on PIO science work. Shortly thereafter, she proposed team-teaching the course the next quarter, and after that was done, dropped the bombshell that she was leaving for the University of Wisconsin. Her departing gift was a recommendation to her bosses that I begin teaching that J-609 course solo.

I spent the next nearly two decades teaching "her" course until the year 2000 when the school of journalism

Earle Holland has been the senior science PIO at Ohio State University for three decades and taught science writing for nearly 20 years.

was mutated into a school of communications and all of the adjunct instructors—most of whom were working journalists—were summarily dismissed as the curriculum swung from journalism to communications, two clearly different fields.

Those years teaching J-609 were rewarding, though physically draining, and many of the students I taught went on to good journalism careers, some in science or medical reporting. To be honest, leading classroom discussions with enthusiastic and interested students readily becomes addictive.

So when the invitation to resume teaching came, I quickly accepted. Perhaps too quickly as it turned out…

It wasn't J-609 that the school wanted taught but, instead, a relatively new course called COMM-640—Science Communications. Along with the name change, the newswriting prerequisites had vanished, as had the strong recommendation that non-journalism students should think twice before signing up.

While J-609 had always had an eclectic mix of non-J students, all had expressed a strong general interest in both the sciences and the news media. But students enrolling in COMM-640 tended to sign up just to get the five hours' credit. Only a few had any real interest in real science communications, much less science journalism.

Additionally, J-609 was a three-hour course while COMM-640 was a five-hour course. For me, that translated into teaching two two-hour lectures each week instead of one three-hour class, a fact I didn't really comprehend until I noticed myself dragging into class the fourth week of a 10-week quarter.

Nevertheless, I was teaching again, standing in front of the class and proselytizing about the profession I loved. Never mind that the writing portion of the course, which I deemed most important, had to be cut in half, and that other modes of "communication" besides journalism had had to be included. And the one-in-five of the 25 students who seemed genuinely enthusiastic eased my concerns—"the rest I can win over in time," I thought naively.

…when the invitation to resume teaching came, I quickly accepted. Perhaps too quickly as it turned out…

I assembled a vast array of readings, most with the kind of "edge" that might interest college students. I arranged for working science reporters to visit class and talk the trade. There were countless examples of good science communications, and I started each class with a "what's new in science" segment to get them accustomed to linking science with "news."

The first warning sign came with a Mickey-Mouse, throwaway essay assignment to encompass the half-dozen discussions we'd had about the challenges of science writing today. When only a third of the assignments they turned in were reasonably intelligent, I should have been seriously worried.

But I knew that the next assignment would solve all. I had used it countless times before and had always seen that spark flare in student's eyes as they grasped the way scientists reported their findings, and how we translated that into news.

Only a few [students] had any real interest in real science communications, much less science journalism.

It was simple: Choose three of the four journal papers I provided and write the first four or five paragraphs as a news story reporting the "news" of the research for each. All the journal articles were readily translatable. While the students didn't know it, each had garnered considerable coverage in the news media some time ago.

To add to the value of the task, each of the three "story openings" would count as a separate assignment, so it was an easy way to solidify their grades. Moreover, we'd done virtually the same thing in class with two different journal pieces, dissecting them and determining what was news and comparing it to actual news coverage.

Piece of cake, I thought. But I was oh so wrong.

Their efforts were, with only two or three exceptions, poor at best, and their subsequent grades were chilling. One student on the verge of tears announced that she'd never, ever gotten below a C before so how could she now? Another, a rather stocky lad in the back of the room, just fumed as his face got redder and his grumbling grew louder.

That night after class, I got an e-mail from a student I considered one of my brightest, a senior in journalism whose work I had seen before and from whom I'd expected great things. She said simply that she wouldn't be back, that she hated the course and hated science—an odd comment since at the start of the quarter, she'd set her sights on a possible career in the field.

Thankfully, she agreed to meet in a couple of days to go over her work and have a frank discussion of what went wrong. As she sat there later, awash in hostile nonverbal cues, I explained that her papers suggested she'd forgotten whatever she'd learned about journalism in the past, that her papers reeked of jargon and lacked all but the slightest bit of translation.

"What the hell happened," I asked.

She finally explained that it was the science that threw her—not that it was complex, but that as science,

she thought it should be formal and less colloquial, in essence, less journalistic—more or less the exact opposite of what I had been preaching all quarter long.

For the next two hours, we dissected those journal papers and talked through the findings. Then I made her verbally "write" the stories she should have done in the first place. They were excellent, and you could hear her anxieties crumble as they fell to the floor.

At least one soul had been saved.

Most of the remaining assignments tended more to the academic than the journalistic so most of the students improved to garner acceptable grades in the end. Four or five actually excelled by the end of the quarter, and a couple of them held reasonable career hopes. Which I guess is a fair outcome, all things considered.

On the last night of the course, one of the communications school staffers came into the class to administer the proverbial SETs—the "student evaluations of teaching" that each professor gets for each course. Of the dozen students there on the last night—half the class that were enrolled—one stayed just long enough to fill out her SET form before abruptly gathering her belonging, sneering in my direction, and noisily making her exit.

Six weeks later, when the evaluations were returned to the instructors, it was easy to see which of the 12 was hers. I was, simply put, the worst instructor she had ever endured and I should never teach again! Mercifully, the remaining 11 had been as positive as she had been negative and many of them had stayed after class that last night, as if they didn't want to leave.

That was four months ago and as yet, I haven't heard if I'll be asked back into the classroom. The course routinely is taught once a year so it may be too early. Then again, I may be tarnished goods, based on that one student's tirade.

And in truth, if asked, I might not accept.

The science communications package just seems a bit too amorphous for my tastes—not nearly as clean as science journalism, to my mind. And those students who eventually began to understand were simply left hanging at the end of the course. There is no follow-up within the curriculum for them to dig deeper and learn more. And that seems a true shame.

With the public's attention span at an all-time low, with science inappropriately influenced by politics, with an insane complexity growing in all scientific disciplines, and the demise of much of what we've traditionally seen as the public good of journalism, it's hard to imagine how things will get better over time. But maybe they will.

The really good professors I have known—and there have been many—all say that reaching a single student makes all the effort worthwhile. But being a glass-half-empty kind of guy, I worry for all those lost souls who'll miss the wonder that we see in the science. ■

IN REMEMBRANCE OF ALEX THE PARROT (1977-2007)

Alex, a parrot that could count to six, identify colors and even express frustration with repetitive scientific trials, has died after 30 years of helping researchers better understand the avian brain.

The cause of Alex's death was unknown. The African grey parrot's average life span is 50 years, Brandeis University scientist Irene Pepperberg said. Alex was discovered dead in his cage on Sept. 6, she said, but she waited to release the news so grieving researchers could get over the shock and talk about it.

"It's devastating to lose an individual you've worked with pretty much every day for 30 years," Pepperberg told the *Boston Globe*. "Someone was working with him eight to 12 hours every day of his life."

Alex's advanced language and recognition skills revolutionized the understanding of the avian brain. After Pepperberg bought Alex from an animal shop, the parrot learned enough English to identify 50 objects, seven colors, and five shapes.

He also occasionally instructed two other parrots at the lab to "talk better" if they mumbled, though it wasn't clear whether he was simply mimicking researchers. ■

(Source: The Associated Press*)*

PHOTO BY JENNY PEGG, COURTESY OF THE ALEX FOUNDATION

PRESIDENT'S LETTER

by Robert Lee Hotz

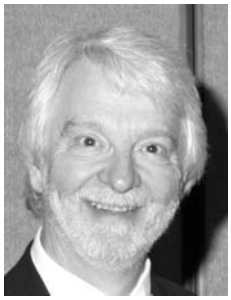


PHOTO COURTESY OF SIGMA XI

At a time when so many gatherings are virtual online encounters, I had the welcome opportunity recently to actually sit around a table over lunch at The Knickerbocker, in Greenwich Village, with stalwarts of our craft, to muse about science writing. Cristine Russell, president of the Council for the Advancement of Science Writing and a senior fellow at Harvard's Belfer Center for Science and International Affairs, was there, as were CASW executive director Ben Patrusky, New Horizons program director and former NASW president Paul Raeburn, and NASW vice president Mariette DiChristina.

The talk, as it inevitably does these days, turned to the future of our craft and we wondered aloud about the prospects for the next generation of science writers. Could they be so grim? Cris Russell, whose scholarly assessment of our field appears as the cover story in this issue of *ScienceWriters*, puts it succinctly. We have been wringing our hands until the skin comes off, she said. The question now is: what are we going to do about it?

Clearly, our field is in the midst of gut-wrenching changes. We can blame a collapse of traditional advertising revenues, if we like, or the breathtaking onrush of new technology or shorter attention spans split between more sources of information. The numbers that Cris gathered at Harvard's Kennedy School of Government do record failing vital signs: Of the 95 daily newspaper science sections published in 1989, only 34 sections were still in business as of 2005. Most of them survived by turning away from hard science and medical issues to more consumer-oriented health coverage. There are fewer full-time staff jobs and smaller news holes. Air time for science has all but vanished. We all know the grim cycles of repeated lay-offs and forced retirements. We share the scar tissue. Yet Cris also sees cause for optimism. To be sure, few of us would be journalists or science writers if we did not embrace the possibilities of tomorrow.

Some of those possibilities are outlined elsewhere in this issue. In her article on an environmental reporting project about endangered Pacific leatherback turtles (see page 5), Jane Ellen Stevens offers an innovative example of the technological transformation of science storytelling and, perhaps more importantly, its broader impact. Google "The Great Turtle Race," as I did, and you will get 2.18 million hits. Hers is a fascinating example of how we can creatively harness the technology of social networking to the story of science. It also demonstrates an interesting business model of science communications. Who would have guessed that companies would pay $25,000 each to sponsor a turtle? Her turtle project calls to mind ongoing experiments in open source reporting, funded through online donations, such as **NewAssignment.net** and journalism Wikis.

I know from our online conversations that we all are changing as fast as we can. Many of you are blogging brilliantly. The problem, of course, is how to make it pay. In my own work as a science columnist for the *Wall Street Journal*, I spend considerable time as the moderator of online forums on research topics raised through my column. It offers a new way for readers to connect with my work and with each other in a burgeoning community of like minds. A science journal column that in the traditional print medium lived but a day now can easily survive for weeks in the back-and-forth of these journal forums. Alone of the major newspapers, the *Wall Street Journal* charges for access to its website. For us anyway, that is a business model that works well—at least for now. We have attracted almost one million paying online subscribers so far. And we can also charge more for online advertising as a result.

Still, I do wonder. Our profession may be reeling in some ways, but NASW itself is thriving. According to our latest head count, we now number 2,891 members—the largest organization of professional science writers in the world, all sharing the same dedication to the dissemination of accurate information about science and technology. Just 85 of us are traditional staff journalists. In recognition of changing times, we have organized a strong grievance committee to help us defend our professional interests in freelance contract disputes. Earlier this year, we launched *Words' Worth*, the NASW market data base. Through *Words' Worth*, we can find valuable information from other members about science writing assignments—"what they did, what they charged, and how it went"—information that can help us all improve our business. We are awarding more travel grants and student scholarships than ever before. Your NASW membership card has never been more valuable.

Maybe I shouldn't worry so much about the next generation of science writers. They are inventing the future already, even if I can't see it so clearly yet. We'll multi-task in ways we cannot yet conceive—and somehow make it all pay. As I reach the mid-point of my time as NASW president, I do think about finding the next generation of volunteers to keep this remarkable enterprise of ours healthy and vibrant. We need many more engaged volunteers, many more people running for the board of directors, many more willing take on the responsibility of becoming an officer. Lend a hand. You will be helping yourself—and all of us.

You have no idea how much fun you'll have inventing the future of NASW. ■

Robert Lee Hotz can be reached at leehotz@earthlink.net.

CYBERBEAT

by Russell Clemings

Some three years after it was started with a member survey, the NASW website redesign is finally complete (mostly).

The final phases were introduced over the summer, culminating on July 15, when we moved our member database to a new computer and merged it with the database that controls website usernames and passwords.

Previously, our member records were stored on a desktop computer in NASW Executive Director Diane McGurgan's office. Keeping the website's usernames and member directory in synch involved sending a lot of e-mails back and forth and loading lots of files. The result: Members had to wait for usernames, for password reminders, for directory updates, for almost everything.

Now, the member database is stored on a central computer at our Internet provider, and all NASW staff members can make updates remotely. Members have access to their own records and can update their directory information, retrieve lost passwords, add their websites to the public list of member websites, and conduct other business instantly.

If you already had an NASW website user name, you should have received a new password by e-mail on July 15. If not, go to **www.nasw.org** and use the "member area" link at the top of the page. You can then ask for a password reminder (if you already have a user name) or apply for a username if you don't have one.

Once you have your username and password, you can log in and explore some of the new features. They include:

1. USERNAME AND PASSWORD RECOVERY. Members who need to retrieve their NASW member website usernames and passwords can now do so automatically by following the "get a username or password reminder" link in the member area.

To use it, enter your first name, last name, and e-mail address. If all three match your record in the NASW member database, you should soon get an e-mail (subject line: "NASW Account Information") with a temporary link to a page that will contain your current username and password. The link expires after one viewing, so be sure to make a record of your credentials before leaving that page.

Note: For security reasons, the password reminder page will not tell you whether the information you submit actually matches an entry in the NASW database. Therefore, if you do not receive your reminder e-mail message within an hour or so, you probably should conclude that the system could not find a match. If that happens, just send your request directly to me (cybrarian@nasw.org). Include your current e-mail address. NOTE: The most frequent reason for an unsuccessful password retrieval is an incorrect e-mail address in our database.

2. CHANGING PASSWORDS. If you want to change your password, just log in to the member area with your current username and password, then follow the "change password" link on the main members page. Please be aware that we have a new security-related rule: Your password must now be between seven and 24 characters in length.

Also, keep in mind that although your password is encrypted when stored in the system, it is still visible to NASW site administrators and will be displayed to you in plain text when you use the "get a username or password reminder" link. For that reason, you may want to use a password different from whatever passwords you use for sensitive purposes like online banking.

3. UPDATING DIRECTORY ENTRIES. You can now update your NASW member directory information via the website—including your name, business, and home addresses, title, affiliations, e-mail addresses, website URLs, areas of expertise, specialties, and other details. Just log in to the member area, then follow the "update your data" link on the main members page.

4. MANAGING E-MAIL ALIASES. As before, you can manage your NASW.org e-mail alias over the web. To create or delete an alias, or change your forwarding addresses, log in to the member area, then follow the "manage e-mail aliases" link on the main members page.

5. MEMBER DIRECTORY SEARCHES. The online version of NASW's member directory has been revamped and now includes the most current information from NASW's central membership database. To use it, log in to the member area and follow the "membership directory" link. In coming months, we plan to add more search options, such as searching by specialty or expertise.

6. MEMBER WEBSITE LISTINGS. NASW's list of member websites at **www.nasw.org/contact/homepages.php** has been updated and linked to the new membership database.

If you want to have your website listed, use the "updating directory entries" procedure (above) to fill in the "primary website URL" and "primary website category" links in your directory entry. To prevent your website from being listed, leave the "primary website URL" box empty. If you previously had your website listed in more than one category, please note that you now are limited to a maximum of one. Your site will also be listed on an "all sites" page.

Finally, we have one more transition pending.

Russell Clemings is NASW's cybrarian and a reporter for the Fresno Bee. *Drop him a note at cybrarian@nasw.org or rclemings@gmail.com.*

Later this year, we plan to move NASW.org's e-mail service to a new Internet provider, which we intend to select this fall. Our goal will be to make the transition as smooth as possible and to find a provider with fast, reliable service. We will make some announcements when we know more about our plans. ■

TOM SIEGFRIED NAMED EDITOR IN CHIEF OF *SCIENCE NEWS*

Science News, the nation's largest general-science weekly magazine, has named Tom Siegfried as its new editor in chief. Siegfried is the former science editor at the *Dallas Morning News*.

According to Elizabeth Marincola, publisher of the magazine and CEO of Science Service, the nonprofit organization that publishes *Science News*, Siegfried was hired to lead a complete redesign and relaunch of the 86-year-old magazine, which provides a loyal audience of 130,000 subscribers with concise and credible news across a wide range of scientific disciplines.

"Tom Siegfried brings to *Science News* a world-class reputation as science writer and editor, and an exciting vision for how digital and print media will be integrated to transform this legendary magazine into an indispensable vehicle for facilitating public engagement in science, in an era when such engagement is critical to addressing our most pressing global challenges," says Marincola.

Siegfried joined the *Morning News* in 1983, becoming science editor in 1985. During his time there, he helped build the newspaper's science section into one of the best in the country, competing on an equal footing with science sections of much larger papers. He left the *Morning News* in 2004, when the newspaper shut down the weekly science section and has since worked as a freelance writer.

His writing and reporting have won the American Geophysical Union's Robert C. Cowen Award for Sustained Achievement in Science Journalism, the Science-in Society award from the National Association of Science Writers, the American Association for the Advancement of Science-Westinghouse Award, and the American Chemical Society's James T. Grady-James H. Stack Award for Interpreting Chemistry for the Public.

"Science journalism has been going through some turbulent times, and the relationship between print and electronic news delivery is still being sorted out. I'm confident that *Science News* will play a leading role in merging the two into the form science journalism will take in the 21st century," Siegfried says.

Siegfried began his journalism career as a business and science writer for the *Fort Worth Press* and later served on the journalism faculty at Texas Christian University before joining the *Morning News*. He is the author of *The Bit and the Pendulum* (Wiley, 2000), and *Strange Matters* (Joseph Henry Press, 2002). His latest book, *A Beautiful Math*, was published in October 2006 by Joseph Henry Press.

The nonprofit organization Science Service was founded in 1921 to advance the public understanding of science. In addition to publishing *Science News*, it owns and administers the world's most prestigious science competitions for young researchers, the Intel Science Talent Search and the Intel International Science and Engineering Fair. It also manages, in partnership with Discovery Communications, the Discovery Channel Young Scientist Challenge. ■

(Source: news release)

WGBH, SIGMA XI LAUNCH NEW SCIENCE CAFE WEBSITE

The WGBH Educational Foundation, in association with the scientific research society Sigma Xi, has launched a comprehensive website at **www.sciencecafes.org** to promote the growing Science Cafe movement in the United States.

The joint venture is the product of an ongoing partnership that began in 2004. That's when Sigma Xi chapters around the country started holding informal public discussions in restaurants, pubs, and coffee shops, drawing on themes presented in the PBS television series NOVA scienceNOW, produced by WGBH.

At Science Cafes, scientists and engineers share their expertise in a relaxed setting. Topics have been wide-ranging, from bird flu, human space flight, chaos, and global warming to the Irish Potato famine, green building, the ivory-billed woodpecker, honeybees, and dark energy/dark matter.

Sciencecafes.org is designed to assist in all aspects of planning and promoting these events, from publicizing and supporting them to choosing topics, speakers and venues. The site was created with the help and input of many science cafe organizers and also features an interactive map to locate where around the country cafes are being held.

The new website is an outgrowth of the first national conference of Science Cafe organizers, held at the Sigma Xi Center in 2006 by WGBH and Sigma Xi's Public Understanding of Science program.

"By taking science to the people, Science Cafes help to personalize and demystify complex subjects, bringing science into everyday conversation, where it truly belongs," said Laura J. Nigro, who runs Sigma Xi's Public Understanding of Science program.

"The sciencecafes.org website is a powerful resource that will bring together the science cafe community and help new cafes get started," Nigro said.

WGBH Boston (**www.wgbh.org**) is America's preeminent public broadcaster, producing such celebrated national PBS series as NOVA, Masterpiece Theatre, Antiques Roadshow, Frontline, American Experience, Arthur, and more than a dozen other award-winning primetime, lifestyle, and children's series. WGBH is also the leading producer of online content for **www.pbs.org**—one of the most visited dot.org sites on the Internet—a major producer for public radio and a pioneer in developing educational multimedia and new technologies that make media accessible for people with disabilities.

Founded in 1886, Sigma Xi (**www.sigmaxi.org**) has about 60,000 members and 520 chapters at colleges and universities, government laboratories, and industry research centers. The non-profit society publishes award-winning *American Scientist* magazine and sponsors a variety of programs that support science and engineering. ■

(Source: news release)

PAY ON TIME TO AVOID PENALTIES

by Julian Block

Make sure you stay on top of the deadlines for filing federal tax returns and the due dates for making payments. Miss just one, and you might be smacked with a sizable, nondeductible penalty based on the current IRS interest rate for back taxes.

Tuesday, Jan. 15, 2008, is a key date for NASW members and other freelance writers to remember. That happens to be the due date for the final quarterly installment of your estimated income tax (including any self-employment tax) for 2007 if you must make payments because your estimated tax exceeds $1,000. But it's permissible to skip this final payment, provided you submit your 2007 return and pay your tax in full by Thursday, Jan. 31.

Who needs to make estimated payments? Individuals with income from sources not subject to withholding of taxes. This category mostly comprises freelancers and other self-employed individuals who operate businesses or professions as sole proprietorships, in partnerships with others, or as independent contractors.

To avoid unnecessary payments, make sure to take account of withholding during 2007 from salaries, wages, and other kinds of compensation received by you or your spouse. Ditto for an overpayment of 2006 taxes that you elect to apply to your 2007 tax bill.

The IRS can assess penalties for failing to pay enough tax during the year through withholding or quarterly payments, as well as for failure to pay required installments on time as they become due. It is immaterial that your final estimated payments are enough to erase any balance due when you submit 2007 1040 form in 2008.

There are "safe harbors" or exceptions that excuse you from any penalties for underpayments of more than $1,000 for withheld or estimated taxes. For relief from penalties, you must comply with a two-step requirement.

First: Make payments by the quarterly due dates—for 2007, by April 16, June 15, Sept. 17, and Jan. 15.

Second: Those payments must at least equal *any* of the following three amounts:

- 90 percent of the total tax for 2007.
- 100 percent of the total tax for 2006. This is the amount on line 63 of the 2006 1040 form.

The exception based on the prior year's tax is available even if the amount due was zero, provided the return covered 12 months, as it ordinarily would.

As the prior-year exception makes use of a fixed number, it's the easiest way for most individuals to calculate their payments and escape penalties. An example: Your tax payments total $12,000 for 2006 and $15,000 through estimates or withholding in 2007. With those kinds of numbers, you're home free, no matter how much you owe when you file for 2007.

The tax code restricts use of this exception when 2006 adjusted gross income (the amount on the last line of page one of Form 1040) surpasses $150,000—decreasing to $75,000 for married couples who file separate returns. To take advantage of the 100-percent escape hatch, payments must equal 90 percent of the total tax for 2007 or 110 percent of the total tax for 2006—whichever is *less*.

- 90 percent of the total tax for 2007, figured by "annualizing" income actually received by the end of the quarter in question.

The annualizing exception helps someone whose income unexpectedly increases or fluctuates throughout the year, as when a freelance writer receives book royalties in December of 2007. The calculation is complicated. ■

*Julian Block, an attorney in Larchmont, N.Y., has been cited as "an accomplished writer on taxes" (*Wall Street Journal*). This article is excerpted from* Tax Tips For Writers, Photographers And Artists*, available at* **www.julianblocktaxexpert.com**.

PIO FORUM

[***Editor's note:*** *Two of the best established online, global news services (EurekAlert! and Newswise) have added new services and features.* SW *requested a recap of these resources to assist PIOs and journalists. Reader comments on their experiences with these and other online news services are welcome.*]

New EurekAlert! Opportunities for PIOs

by Patrick McGinness

PHOTO BY BEN SOMERS

In 2006, an informal online survey of 1,059 reporters and public information officers, conducted by EurekAlert!, seemed to confirm key challenges associated with communicating science in a post-print, increasingly multi-media-focused era. Responding to this input EurekAlert! has introduced a number of new services to address the seismic shift in science communications.

For example, EurekAlert!'s multimedia gallery (**www.eurekalert.org/multimedia**) provides a centralized, "one-stop-shopping" resource where PIOs can provide reporters with freely accessible images, audio, and video files. EurekAlert! Chinese (**chinese.eurekalert.org**) makes the EurekAlert! science-news service available to science reporters in China as well as helping to bring Chinese science reporters into the broader global science reporting community.

Making research news available in many languages is a top priority for EurekAlert! In addition to Chinese, news is invited in French, German, Japanese, or Spanish —and soon, Portugese. Non-English releases can be submitted to the multi-language portal with or without an English-language version, though an English translation ensures the best potential pickup. Access through **www.eurekalert.org/language**. In the near future, EurekAlert! plans to upgrade the multi-language portal, to include a password-protected, embargoed section.

Meanwhile, PIOs can increase exposure for news releases and artwork of interest to younger readers by submitting content to the kids' portal, which is marketed to specialist editors (**www.eurekalert.org/kidsnews**). Staffers continue to upgrade the keyword-searchable

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Patrick McGinness (pmcginne@aaas.org) is EurekAlert! director.

Pioneer Newswise Continues to Blaze Trails

by Roger Johnson

PHOTO COURTESY OF NEWSWISE

Newswise turns 16 years old this year. It began in the age of dial-in, text-based bulletin-board services. Before the Internet existed, Newswise embraced the promise of electronic communications to enhance the value and efficiency of knowledge-based news distribution. The rise of the Internet and other emerging technologies has allowed Newswise to evolve, incorporating new electronic tools and services for journalists and communicators with previously unimaginable possibilities, built new communities, and helped push paper-based news releases on their path to extinction.

Newswise has continued to expand its services. Within the past year it added web video and audio capability were added (**www.newswise.com/libraries/video**).

Newswise has also added Breaking News and Feature Channels to create an environment in which journalists can juxtapose story ideas to generate their own unique approach to news events or features.

Newswise also added images and RSS capability. For a comprehensive look at what's new on Newswise see **www.newswise.com/about/new**.

Being web- and e-mail-based allows Newswise to look forward to many new opportunities to manage, organize, and deliver information, and Newswise is dedicated to providing a full array of offerings for journalists. Newswise has recently added staff and created a team to focus specifically on improved or new online services, for example, developing more effective ways to help journalists find experts. Currently, these are:

- **Expert Query** (**www.newswise.com/resources/eq**) allows reporters to broker their search for experts. Newswise staff forward the query to several hundred research

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Roger Johnson is president and founder of Newswise.

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experts database as well. Annual subscribers may submit up to 60 eligible experts per year for free; others can submit experts for $40 per name.

EurekAlert! is also planning a PIO seminar, "Communicating Health News Across the Media Spectrum," on Friday, Nov. 2, featuring reporters with AP Broadcast, Bloomberg News, *USA Today*, *U.S. News & World Report*, and the *Washington Post*. See **www.eurekalert.org/seminar** for details. This is the third PIO seminar offered by EurekAlert! since 2004.

Last but not least, EurekAlert! helps affiliated journals notify PIOs of forthcoming articles by their institution's researchers. Seven participating journals regularly post information to their "journal contributors" pages (**www.eurekalert.org/jrnlcontrib.php**). Some also have arranged for EurekAlert! to tip off PIOs via e-mail. *Science*, for example, recently upgraded its free PIO-notification service so that registered PIOs receive e-mail notices immediately following editorial imposition. The online *Science* contributors list also is updated weekly (**www.eurekalert.org/pio/sci**). These services are available to all PIOs who have a free individual EurekAlert! account, not just those who pay to post news.

More than a decade after its launch by AAAS in 1996, EurekAlert! serves approximately 5,500 registered reporters working in 60 countries as well as some 5,000 registered PIOs. To learn more, call 202-326-6716 or e-mail webmaster@eurekalert.org. ■

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organizations (no PR agencies or companies). Newswise is now developing an enhanced Expert Query portal with an improved feedback loop and privacy controls.

- **Newswise archives** of more than 60,000 news releases from the past 10 years provides the best and most comprehensive online database of experts. It is full-text searchable, and each expert has the context of a news release to describe her/his expertise.
- **Breaking News Channels** cluster experts on continuing, front-page topics.

Newswise is also developing an on-request alert system for major fast-breaking news and is exploring tactics to improve the delivery of news via its wires, such as the Newswise Daily Wire. The objective is to provide more categories of story type.

As it enters its 17th year, and as technology advances, Newswise remains committed to providing science and medical journalists the best possible access to knowledge-based news and responding quickly to your suggestions and complaints. Newswise welcome science writers' input (newswise@newswise.com). ■

OUR GANG

by Jeff Grabmeier

PHOTO BY JO McNULTY, OHIO STATE

Light Years Ahead of the Rest. New York-based **Malcolm Ritter** was recognized by his employer, *The Associated Press*, with its Gramling Spirit Award. The awards, now in their 14th year, are given annually to staff members whose work and initiative contribute significantly to the news report and to overall AP operations. Ritter was honored for being the ultimate team player who freely gives his time to assist any AP journalist requesting help and for creating the AP Science Wiki page, a resource for AP writers that lists experts and websites on various medical and scientific topics, as well as AP beat reporters who can share their expertise on specific subjects. Send best wishes to Malcolm at mritter@ap.org.

A Northern Light. With global warming, will **Joel Shurkin** even notice the difference in climate between Baltimore and Fairbanks, Alaska? I'm guessing yes. Joel is the new Snedden Chair in Journalism at the University of Alaska, where he will be the first to hold the chair for a full academic year. He will teach two courses and work on a book project with his students. He'll also keep a wary eye out for the wildlife. "Someone shot a grizzly a mile from our apartment in early June, and I am not making that up," he reports. Send your anti-bear tips to Joel at shurkin@mac.com.

The North Star. Joining the exodus from the lower 48 is **Anne Sasso**, who spent the month of July in Banff, Alberta, Canada. She was awarded a fellowship to be one of eight artists in residence in the Banff Center for the Arts' Literary Journalism program. "It's a huge honor and I'm thrilled to have been chosen to spend time writing in one of my favorite places on Earth," Anne says. "I will be working on an essay, which is part of a larger memoir project based on my time as a geologist in Peru." You can find Anne at anne@waterrockcommunications.com.

New Phase to His Moon. After almost 10 years of writing the popular food science column "Food 101" for the *Washington Post*, **Robert L. Wolke**, is closing the proverbial kitchen. Bob, a professor emeritus of chemistry at the University of Pittsburgh, says his appetite for writing exclusively about food isn't what it used to be. But Bob—author of *What Einstein Told His Cook: Kitchen Science Explained* and *What Einstein Told His Cook 2: Further Adventures in Kitchen Science*—said

Jeff Grabmeier is assistant director of research communications at Ohio State University, in Columbus, Ohio. Send news about your life to Jeff at Grabmeier@nasw.org.

he is not giving up writing. He will still freelance on the scientific angles of food and cooking. Some of his current articles are about why cheese melts, how ozone can sanitize food in the home kitchen, and how the new breed of experimental "alchemist" chefs create those highly unusual dishes never before eaten—or even seen—by man. Bob is at wolke@pitt.edu.

Star Light… Two shining lights in NASW were selected to be among the nine recipients of the 2007 Kaiser Media Fellowships in Health. The goal of the program, started in 1993, is to "help journalists and commentators do the best possible job of keeping the public informed about health issues at this critical time in the evolution of our health care system." The nine-month program allows fellows to pursue their own interests. **Deborah Franklin** (deborah_franklin@nasw.org), acting deputy science/health editor for National Public Radio in Washington, D.C., will explore genetic testing and its implications for individuals and their health insurance coverage. **Czerne M. Reid** (czreid@nasw.org), health and science reporter for *The State* in Columbia, S.C., will investigate federal and state funding for HIV/AIDS treatment and care, and the economic and social impact of the disease in South Carolina.

…Star Bright. **Glennda Chui** has left the *San Jose Mercury News* to work for Stanford University as deputy editor of *symmetry* magazine. *Symmetry* is produced by the Stanford Linear Accelerator Center and Fermilab (and funded by the Department of Energy). Glennda is at glennda@glenndachui.com.

Star Wars. Of all the new careers we've written about in "Our Gang," this may be among the strangest—and most uplifting. **Neil Gussman**, who is 54 years old, is joining the military—for the second time. Gussman, communication manager for the Chemical Heritage Foundation in Philadelphia, joined the Pennsylvania National Guard recently, after first enlisting in 1972 during the Vietnam War. He expects his helicopter-maintenance-unit job at Fort Indiantown Gap to lead to a slot as a chemical-weapons specialist. "I didn't join the Army now to kick down doors in Tikrit or anything," Neil told the *Sunday News* of Lancaster, PA. But the Democrat said he is frustrated by what he calls "the complete failure of conservatives" in Iraq. "The war is a fact now. Whether you support the war or not, somebody's got to go." Send your best wishes to Neil at neilg@chemheritage.org.

Out of this World. Seven NASW members were chosen to participate in the Kavli Science Journalism Workshop in Cambridge, Mass., titled "The Universe." The intense, three-day workshop, held in June and sponsored by the Knight Science Journalism Fellowships, was taught by leading astronomers and astrophysicists from MIT, Harvard, and other institutions. The journalists chosen to attend learned the basics of what is known—from our solar system out to the farthest reaches of the universe, as well as new discoveries about such things as extra-solar planets, black holes, galactic nuclei, dark matter, and dark energy. The NASW attendees were **Beryl Benderly**, freelancer from Washington, D.C.; **Robert Boyd**, a science writer for McClatchy Newspapers; **David Chandler**, freelancer from New Hampshire; **Alicia Chang**, science writer for *The Associated Press*; **Larry O'Hanlon**, science correspondent for Discovery Channel News; **Angela Posada Swafford**, U.S. Correspondent for Muy Interesante Magazine; and **Cindy Tumiel**, senior writer for the *San Antonio Express-News*.

Oceans: The Final Frontier? Not to be outdone by the Kavli Workshops, the Woods Hole Oceanographic Institution also selected seven NASW members to participate in its program.: The Ocean Science Journalism Fellowship, which is designed to introduce science communicators to the interdisciplinary and wide-ranging fields of oceanography and ocean engineering. Through seminars, laboratory visits, and brief field expeditions during the one-week program, the fellows gain access to new research findings and to fundamental background information in ocean engineering, marine biology, geology and geophysics, marine chemistry and geochemistry, and physical oceanography. NASW members selected as fellows were **John Carey**, senior correspondent for *Business Week*; **Scott Dodd**, freelancer from New York; **Elizabeth Grossman**, freelancer from Portland, Ore.; **Jonathan Leake**, science and environment editor for *The Sunday Times*, in London; **Kurt Loft**, science reporter for the *Tampa Tribune*; **Lori Valigra**, editor of the *Gulf of Maine Times* in Cambridge, Mass.; and **Karen Romano Young**, freelancer from Bethel, Conn.

Give Her a Milky Way. **Beryl Benderly** also won the Gold Award for Best Feature Article in the Magnum Opus Awards competition run by *Publications Management* magazine and the University of Missouri School of Journalism. Beryl won for an article she wrote on electronic medical records. Congratulate Beryl at blbink@aol.com.

Shining Star. **Catherine Clabby**, a science reporter for the *News & Observer* of Raleigh, N.C., has been selected to receive a Knight Science Journalism Fellowship. Catherine is among 10 new fellows, all of whom are mid-career journalists who work for general interest news media to improve the public understanding of science. They will take a sabbatical year from their jobs to improve their own understanding of science by taking courses at MIT and Harvard, interviewing scientists, and attending various seminars and lectures during the 2007–08 academic year. Congratulate Catherine at cclabby@newsobserver.com.

Pointing His Telescope in a New Direction. After 16 years at the American Institute of Physics, **Ben Stein** has left AIP to become director of media relations at the

National Institute of Standards and Technology, in Gaithersburg, Md. During his AIP years, Ben was an important figure in operating the pressroom at large American Physics Society meetings, in establishing innovative outreach techniques such as "virtual pressrooms," and in publicizing the research results of AIP's member societies in general. Ben's new e-mail address is bstein@nist.gov.

Entering a New Orbit. Our loss is society's gain. After nearly a decade as a science writer in Ohio State University's Office of Research Communications, **Holly Wagner** is leaving this fall to pursue a master's degree in nursing. It's a three-year program at Ohio State, at the end of which she'll be a family nurse practitioner. But Holly says she is not giving up writing, and hopes to land some freelance projects. Holly's e-mail address will remain the same wagner.235@osu.edu.

Journey to the Center of the Ear! Freelancer **Don Monroe** of Berkeley Heights, N.J., received the Acoustical Society of America's Science Writing Award in Acoustics for Journalists. He was honored for his 2006 article, "Why the Inner Ear is Snail-Shaped," which was published in the online magazine *Physical Review Focus*. Congratulate Don at freelance@donmonroe.info.

Liftoff! A new online publishing venture on climate change issues and journalism was launched recently at Yale University. The Yale Forum on Climate Change and the Media (climatemediaforum.yale.edu) will be run by NASW freelancer **Bud Ward**. The forum discusses journalism best practices for covering climate science, expert sources, case studies, and more. For additional information, contact Bud at wardbud@gmail.com.

Getting a Big Bang Out of Retirement. Encouraged by a reorganization and IBM's growing emphasis on software and services, San Jose-based **Mike Ross** retired from IBM Research this spring after 18 years' service. This summer and fall he says he's essentially on sabbatical, taking some classes and helping at home much more than had been possible before. He says he may resume his 30-year career in writing about physics, chemistry, materials science, nanotechnology, and engineering later this year. Friends are welcome to contact Mike at mikeross2@prodigy.net.

Planet Hopping. **Linda Joy** is leaving the National Institute of Aging, but won't go too far: she has taken a new job at another NIH institute, the National Institute on Deafness and Other Communication Disorders. Linda says this new job will allow her to spend more time focused on science writing and editing. Talk to Linda at ljoy@mail.nih.gov.

Eclipsing Her Old Career. After 15 years as a science writer for the Pacific Northwest National Laboratory in Richland, Washington, **Sallie Ortiz** has taken an early retirement to join the ranks of freelance science writers. Sallie says she is looking forward to meeting more of her new freelance colleagues at the upcoming NASW/CASW meetings in Spokane in October. Send your regards to Sallie at sallieortiz-writer@charter.net.

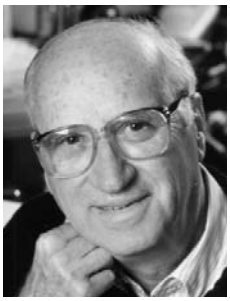
Constellation of Talents. The work of three NASW members is featured in the new anthology *The Best American Science Writing 2007* edited by Gina Kolata, and published by HarperCollins: **Robin Marantz Henig**, a contributing writer for the *New York Times Magazine* (robinhenig@nasw.org);, **David Dobbs**, a freelancer from Montpelier, Vt.T (dave@daviddobbs.net);, and **Jennifer Couzin** of *Science* (jcouzin@aaas.org).

Rocket Man. Freelancer **Matt Bille** of Colorado Springs has been invited to be a panelist for the kickoff session of this year's national conference of the American Astronomical Society, which will be held in Houston Nov. 13-14. Matt's panel is titled "Celebrating NASA's Heritage—Fifty Years of Discovery and Achievement." Matt can be found at mattwriter@aol.com. ■

IN MEMORIAM

Daniel E. Koshland Jr.

Former editor of Science



Daniel E. Koshland Jr., 87, former editor of the journal *Science*, a biochemist known for his work on proteins and enzymes and the benefactor behind a D.C. science museum, died July 23 at Kaiser Permanente Medical Center, in Walnut Creek, Calif., after a stroke.

At *Science* from 1985 to 1995, Koshland introduced special editions, streamlined the system of reviewing manuscripts, and expanded news coverage.

His witty editorials addressed topics that included get-rich-quick science and faked results. He once suggested that scientists could become charismatic if they wore lab coats of any color but white.

His main work, as a professor of molecular and cell biology at the University of California at Berkeley, centered on the catalytic activity of enzymes, or how they speed up chemical reactions in the body. One of his first papers overturned the 100-year-old theory of how enzymes work.

He later studied how bacteria respond to their environment and discovered that bacteria have a rudimentary type of memory that allows them to compare past and present. Bacteria detect the chemicals in their environment via receptors on their exterior, he learned, and the receptors are linked to molecules inside that transmit the signal and change the bacteria's behavior.

While continuing his scientific research at Berkeley, Koshland led *Science* into becoming a major influence on public policy.

He editorialized, often with humor, in favor of increased funding for small-scale research, even to the detriment of big-science projects. He speculated that courts might soon have to better educate judges and juries on matters of science or establish special scientific courts to handle an increasing number of lawsuits in which science and technology play a central role. He also introduced a character in his editorials, "Dr. Noitall," to lampoon self-satisfied scientists.

During the 1980s and 1990s, the scientific establishment was rocked by a series of fraudulent experiments and conclusions, which professional journals, including *Science*, failed to catch before publication. When Koshland wrote that "99.9999 percent of reports are accurate and truthful," he was widely criticized for using a specific figure when little data existed.

"There is no evidence that the small number of cases that have surfaced required a fundamental change in procedures that have produced so much good science," he said.

In the end, he revised *Science*'s procedures for peer review. The role of a general scientific journal, Koshland said, should be to "encourage heresy but discourage fantasy."

Born in New York, Koshland was the son of a banker who joined Levi Strauss & Co. in 1922 and moved his family west to San Francisco. Koshland found science more fascinating than denim, especially after reading Paul de Kruif's *Microbe Hunters* and Sinclair Lewis's *Arrowsmith*.

He graduated from Berkeley in 1941 but was turned down for military service because of poor eyesight. A teacher recommended that he go to the University of Chicago, and later, Oak Ridge, Tenn., to join physicist Glenn Seaborg, who was working on the Manhattan Project. The young scientist joined the team; his work involved the purification of plutonium for the construction of the first plutonium-based fission bomb.

Koshland received a doctorate in organic chemistry in 1949 from the University of Chicago. After two postdoctoral years at Harvard University, he and his wife, Marian—an immunologist who did groundbreaking work on a cholera vaccine and the behavior of antibodies—moved to Long Island to work at Brookhaven National Laboratory, where they remained until 1965, when he was recruited to Berkeley.

Koshland was elected to the National Academy of Sciences in 1966, received the National Medal of Science in 1990, a Lasker Award for Special Achievement in Medical Science in 1998, and numerous other honors.

He endowed the National Academy of Sciences with a $25 million gift to establish the Marian Koshland Science Museum, named for his late wife, in an effort to increase the public understanding of science. He described it as "a little gem," rather than a big, comprehensive institution.

"We wanted to explain science a little more. We wanted to show how science works, the science behind the headlines," he told the *Washington Post* when the gift was announced.

(Source: Washington Post*)*

Don Herbert

TV's "Mr. Wizard" taught science to young baby boomers

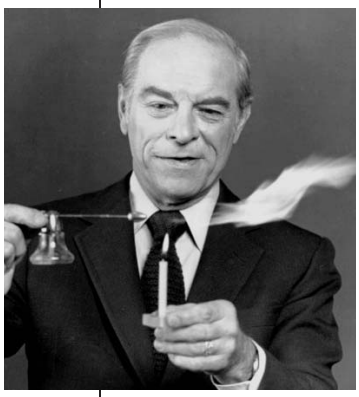


PHOTO COURTESY OF MRWIZARDSTUDIOS.COM, © MR. WIZARD STUDIOS, INC.

Don Herbert, who explained the wonderful world of science to millions of young baby boomers on television in the 1950s and '60s as "Mr. Wizard," and did the same for another generation of youngsters on the Nickelodeon cable TV channel in the 1980s, died June 12 at his home in Bell Canyon, Calif. He was 89.

A low-key, avuncular presence who wore a tie and white dress shirt with the sleeves rolled up, Herbert launched his weekly half-hour science show for children on NBC in 1951. Broadcast live from Chicago on Saturdays the first few years and then from New York City, "Watch Mr. Wizard" ran for 14 years.

Herbert used basic experiments to teach scientific principles to his TV audience via an in-studio guest boy or girl who assisted in the experiments.

"I was a grade school kid in the '50s and watched 'Mr. Wizard' Saturday mornings and was just glued to the television," said Tom Nikosey, president of Mr. Wizard Studios, which sells Herbert's science books and TV shows on DVD.

"The show just heightened my curiosity about science and the way things worked," Nikosey said. "I learned an awful lot from him, as did millions of other kids."

By 1955, there were about 5,000 Mr. Wizard Science Clubs nationwide, with more than 100,000 members. And as Mr. Wizard, Herbert was a true TV star, featured in an array of magazines, including *TV Guide*, *Life*, *Time*, *Newsweek*, *Science Digest*, *Boy's Life*, and even *Glamour*.

Herbert was taken aback by the show's success.

"What really did it for us was the inclusion of a child," he told the *St. Louis Post-Dispatch* in 2004. "When we started out, it was just me up there alone.

That was too much like having a professor give a lecture. We cast a boy and girl to come in and talk with me about science. That's when it took off.

"The children watching could identify with someone like them."

In explaining how he brought a sense of wonder to elementary scientific experiments, Herbert told the *New York Times* in 2004 that he "would perform the trick, as it were, to hook the kids, and then explain the science later."

"We thought we needed it to seem like magic to hook the audience, but then we realized that viewers would be engaged with just a simple scientific question, like, why do birds fly and not humans? A lot of scientists criticized us for using the words 'magic' and 'mystery' in the show's subtitle, but they came around eventually."

"Watch Mr. Wizard" garnered numerous honors, including a Peabody Award, four Ohio State awards, and the Thomas Alva Edison Foundation Award for "Best Science TV Program for Youth."

And Herbert had a lasting effect.

"Over the years, Don has been personally responsible for more people going into the sciences than any other single person in this country," George Tressel, a National Science Foundation official, said in 1989.

"I fully realize the number is virtually endless when I talk to scientists," he said. "They all say that Mr. Wizard taught them to think."

Herbert's experiments on the show typically used household items.

As a 1951 *Time* magazine story noted: "Herbert's object is to show his audience what goes on in the world—why the wind blows, what makes a cake rise, how water comes out of a kitchen tap.

Not every Mr. Wizard experiment went according to plan.

In *Saturday Morning TV*, a 1981 book by Gary H. Grossman, Herbert recalled pouring two colorless solutions into one glass and then announced that the solution would turn black before he counted to nine.

"I got up to 20 and decided I'd better stop," he recalled. "I explained that apparently other factors like temperature and acidity had interfered with the experiment."

But as he finished his explanation, the liquid changed color.

"It was embarrassing, certainly, but I discovered the answer," he said. "We hadn't used a fresh solution, so the reaction was slower than expected."

After "Watch Mr. Wizard" ended its 14-year-run in 1965, Herbert showed up frequently on talk shows, including "The Tonight Show" and "Late Night With David Letterman."

"Watch Mr. Wizard" was revived in 1971 for a season, and "Mr. Wizard's World" ran on Nickelodeon from 1983 to 1990.

Born July 10, 1917, in Waconia, Minn., Herbert later moved to Minneapolis and then La Crosse, Wis. He graduated from LaCrosse State Teachers College in 1940 and could have taught English or general science—his majors—but he recalled later that he was more interested in the theater. He worked as an actor and stagehand in a Minnesota theater group before moving to New York City in 1941.

A year later, he volunteered for the Army Air Forces. As a B-24 bomber pilot, he flew 56 missions over Italy, Germany, and Yugoslavia and received the Distinguished Flying Cross and the Air Medal with three oak-leaf clusters.

Herbert wrote several books, including *Mr. Wizard's Supermarket Science* and *Mr. Wizard's Experiments for Young Scientists*. In recent years, he helped set up his website **www.mrwizardstudios.com**.

(Source: Los Angeles Times*)*

ScienceWriters has learned (belatedly) of the deaths of:

Michael P. Ryan, Jr.

Michael P. Ryan, Jr., of Darien, Conn., who died in October 2004. Ryan was born Nov. 9, 1921, and received both a bachelor's and master's degree in chemistry engineering from Rensselaer Polytechnic Institute. During World War II, he served in the Army Air Force where he was a weather officer and navigator. He had a long successful career in communications serving as vice president for communications at United Technologies Inmont, a worldwide manufacturer of specialty chemicals. Prior to that, he was vice president of advertising and publicity at Allied Chemical. In addition he taught communications to MBA candidates at the Columbia University Graduate School of Business. An NASW member since 1962, Ryan was also a member of Sigma Xi, the American Chemical Society, and The American Institute of Chemical Engineering.

Gene Liberty

Gene Liberty, of the Bronx, N.Y. An NASW member since 1968, he died in February.

James Sweet

James Sweet, 89, of the University of Chicago (retired). An NASW member since 1969.

Charles Marwick

Charles Marwick, of Washington, D.C. An NASW member since 1960. ■

NOTICES FROM DIANE

What's my password?


PHOTO BY ANDREW SKOLNICK

Hardly a week goes by without a member (or two or three) sending an e-mail that reads:

> My old password doesn't work to access info on the NASW website. I suppose it was changed at some point. How do I find out what my assigned password is, or set up a new one?

Life just got easier for you (and me). As part of the NASW website redesign, the member database is now stored on a central computer at our Internet provider, and all NASW members can make updates remotely. This means members have access to their own records and can retrieve lost passwords (**www.nasw.org/forgot.php**). For more information on this and all the new website features, see this issue's Cyberbeat column (see page 17).

Authors Coalition update

The latest Authors Coalition payment to NASW was $63,411. We're coming up on the end of the year, so be sure to fill out your annual survey when it arrives so that NASW maintains qualified to participate in this fee-sharing program.

Science in Society Awards

Deadline for the 2008 Science in Society Awards entries is Feb. 1, 2008. ■

EVERT CLARK/ SETH PAYNE AWARD

Jia-Rui Chong, a staff writer at the *Los Angeles Times*, is winner of the 2007 Evert Clark/Seth Payne Award, an annual prize for young science journalists. Chong received the award and its $1,000 prize for four stories: "Badminton World Isn't Smiling for These Birdies," "Alaska Villagers Living in Bird Flu's Flight Path," "Book With a Buried Treasure," and "First Warmer, Then Sicker."

The panel of judges cited Chong for "getting out of the office to do real reporting in the field, finding unique ways of covering well-trodden topics." The judges praised her effort, choice of stories, and clear, evocative writing.

The judges also awarded an honorable mention to Mary Carmichael for a story in the *Boston Globe* magazine, "Shaken Baby Syndrome," and two cover stories in *Newsweek*: "Exercise and the Brain" and "The New War on Pain." The judges found the stories to be well-crafted, compelling reads. They especially praised the story on shaken-baby syndrome for chronicling the scientific debate on very difficult issue.

The award will be presented by the Evert Clark Fund and the National Association of Science Writers, in conjunction with the National Press Foundation. The ceremony will take place on October 21, during the meeting of the National Association of Science Writers/Council for the Advancement of Science Writing in Spokane, Wash.

Judges for this year's award were Liz Pennisi from *Science*, Dr. Rob Flieschmann from The Institute for Genomic Research (now the J. Craig Venter Institute), Nell Boyce from National Public Radio, Dr. Timothy Beardsley, editor in chief of *BioScience*, and Chris Mooney, author of *The Republican War on Science* and *Storm World*.

The Clark/Payne Award encourages young science writers (age 30 or younger) by recognizing outstanding reporting in all fields of science. It is given each year in memory of journalists Ev Clark and Seth Payne, who offered friendship and advice to a generation of young reporters. This is the 18th year of the award.

The deadline for submissions is the end of June each year. For more information, contact the Evert Clark Award Fund or visit **www.mindspring.com/~us009848/**. ■

(Source: news release)

NASW TRAVEL FELLOWSHIPS

Eleven science writers have been chosen to receive NASW Traveling Fellowships to the NASW Workshop, October 19-20, in Spokane.

Kevin Begos, freelance, Apalachicola, Fla
Alison Drain, freelance, Rocky River, Ohio
Hannah Hoag, freelance, Montreal, Quebec, Can.
Sharon Levy, freelancer from Arcata
Amy Maxmen, freelance, Cambridge, Mass.
Emma Marris, correspondent for *Nature*, Washington, D.C.
Robin Mejia, freelance, Santa Cruz, Calif.
Jane Neff Rollins, freelance, Montrose, Calif.
Krista West, freelance, Fairbanks, Ak.
Jennifer Weeks, freelance, Watertown, Mass.
Michele Zacks, freelance, Galveston, Tex.

The fellowships, totaling $8,250, were made possible through Authors Coalition funds received by NASW. ■

NASW MENTOR GRANTS

NASW is pleased to announce the recipients of this year's fellowships for graduate students to attend the Science in Society meeting, in Spokane.

Rachel Ewing, Drexel
Marcus Y. Woo, Caltech
Rachel Cooper, New York University
Andrea Anderson, New York University
Joseph Caputo, Boston University
Maria-Jose Vinas, UC Santa Cruz
Rachel Tompa, UC Santa Cruz
Megan Rulison, MIT
Rebecca Alvania, Johns Hopkins University
Sarah Nell Davidson, Cornell University

Each fellowship is in the amount of $800. Support of this education initiative comes from Author Coalition funding. ■

EDUCATION COMMITTEE TAKES ON DIRECTORY UPDATE

The education committee is taking on a long-term project to provide valuable information to students seeking formal education in science writing.

Sharon Dunwoody at the University of Wisconsin has for many years taken on the Herculean task of compiling a list of American universities that offer courses or programs in communicating science to the public. Sharon has graciously agreed to turn over ownership of the list to NASW where it can be made available on our web pages. The advantage is that students and would-be students already turn to NASW for all kinds of information about science writing careers.

Many thanks to board member Terry Devitt who helped broker the arrangement. ■

CASW AWARDS FELLOWSHIPS

Seventeen CASW Traveling Fellowships, of up to $1,200 each, were awarded to help science writers defray the costs of attending the 2007 New Horizons in Science briefing, in Spokane, October 21-23. The fellowships assist journalists from publications and broadcast outlets that do not routinely cover major science meetings or employ a full-time science writer. CASW also assigns a veteran science writer to each fellow to serve as a mentor during the program.

The 2007 CASW Traveling Fellows are: **Jesse Boyett Anderson**, freelance, Barneveld, Wis.; **Clare Baldwin**, freelance/*San Francisco Examiner*, Ojai, Calif.; **Matthew Busse**, freelance, San Diego, Calif; **Ewen Callawy**, News intern/*Nature* and UC Santa Cruz; **Jennifer Cutraro**, freelance, Somerville, Mass.; **Carmen Drahl**, *Chemical & Engineering News*, Washington, D.C.; **Dan Farber**, freelance, Indianapolis, In.; **Adam Hinterthuer**, freelance, Madison, Wis.; **Ken Kingery**, intern/freelance, Streetsboro, Ohio; **Betsy Mason**, *Contra Costa* (Calif.) *Times*; **Carol Milano**, freelance, Brooklyn, N.Y.; **Stephen Ornes**, freelance, New Haven, Conn.; **Melissa Lee Phillips**, freelance, NY City; **Kendall S. Powell**, freelance, Broomfield, Colo.; **Teresa M. Shipley**, Student Conservation Association, Boise Id.; **Cheryl Platzman Weinstock**, freelance, Westport, Conn.; **Corinna Wu**, freelance, Washington, D.C.

The New Horizons Traveling Fellowship Program is underwritten by a grant from the Burroughs Wellcome Fund. ■

2007 RENNIE TAYLOR/ ALTON BLAKESLEE FELLOWS ANNOUNCED

The Council for the Advancement of Science Writing (CASW) has announced the recipients of this year's Rennie Taylor/Alton Blakeslee Graduate Studies Fellowships. The fellowships provide up to $2,000 for the academic year to both professional journalists and students of outstanding ability who have been accepted into graduate-level programs in science writing. The recipients are:

Allyson T. Collins, a freelance writer for four years who will be attending MIT.

Craig Rothstein, going to Columbia University. He is a SUNY at Buffalo graduate and worked as a freelance writer/web designer and creative consultant before applying to graduate school.

Megan R. Rulison, going to MIT. She's previously worked at the Museum of Science and is a Boston College graduate.

Katharine Tweed, will attend New York University. He had been for Fox News Channel/foxnews.com and is a graduate of Boston College and the University of New South Wales.

Support for the fellowships derive largely from a special bequest made to CASW by the American Tentative Society (ATS), which, for three decades, played an important role in promoting public understanding of science and the scientific process. The fellowships honor the memory of Rennie Taylor, a science writer for *The Associated Press*, whose estate provided funds for the establishment of ATS, and Alton Blakeslee, AP science editor, who served as long-time president of ATS. Fellowship application and eligibility requirements can be found at **www.casw.org**. ■

REGIONAL GROUPS

by Suzanne Clancy

D.C. Science Writers

PHOTO BY MARC LIEBERMAN

DCSWA had a smashing weekend on the Eastern shore in mid-July. Members spent most of Saturday at the University of Maryland Horn Point Laboratory (**www.hpl.umces.edu**), where they learned about efforts to boost oyster and sturgeon populations in the bay. Hundreds of millions of oyster larvae, called spat, are grown in giant vats for reintroduction into the bay. A team was also getting ready to breed the first mature female sturgeon caught in the bay in many years.

Saturday evening included a tour of the Choptank River via skipjack, a small sailing vessel. A group headed after dinner to a screening of the new Harry Potter movie. On Sunday, another group toured the nearby Blackwater Wildlife Refuge, where they hunted the elusive Delmarva Fox Squirrel.

Here's a report from weekend organizer Rick Borchelt, who did a magnificent job, as usual:

"I'm happy to report that the 2007 DCSWA summer trip went very well. Twenty-nine attendees attended some or all of the Horn Point programs. Of particular note, we had 27 registrants for the Skipjack Nathan cruise, and sailed under delightful skies and strong breezes for a great time on the bay putting all we'd heard about oysters, sturgeon, crab, and the health of the bay in good perspective.

"Special thanks to Gail Porter for organizing the biking trip and for photographic support, Mitch Waldrop for dragnetting the Crab Claw parking lot in search of DCSWA stragglers, Corinna Wu for getting me out of power jam by loaning me her cell phone charger, and the enthusiasm and good will of all the participants." ■

Send information about regional meetings and events to Suzanne Clancy at sclancyphd@yahoo.com.

ScienceWriters *welcomes letters to the editor*

A letter must include a daytime telephone number and e-mail address. Letters may be edited. Letters submitted may be used in print or digital form by NASW. Send to Editor, *ScienceWriters*, P.O. Box 1725 Solana Beach, CA 92075, fax 858-793-1144, or e-mail lfriedmann@nasw.org.

LETTERS

The fine obituary on Earl Ubell (*SW*, Summer 2007) discloses an irony stemming from an encounter I had with Earl in 1952. As a writer for *Paramount News*, I was assigned to describe the opening of the Brookhaven cosmotron, for which we had footage. My boss, one Max Klein, thought it would be interesting to have the famed science writer William Lawrence, of the *New York Times*, voice the script. However, when he reached Lawrence by phone, he was flabbergasted to hear that he spoke with a thick Yiddish accent. Klein said nothing, and put the phone down immediately. The newsreel was to be shown nationally and in those days a Yiddish accent would have been unacceptable west of the Hudson. Klein then contacted the second best—Ubell, the science writer for the *New York Herald Tribune*. Earl agreed, and later that day arrived at our studio, just two blocks from the *Trib*. I handed Earl the script I'd written. "Where's the rest of it?" he asked. I told him that the single page was all that was allotted to the story, to fit the minute and a half worth of film. Earl said the cosmotron story couldn't be told in that short a piece, and that he had had to battle his editor for a space four times as long. I had to stand fast, and I urged Earl at least to read my piece and simply correct anything wrong with it. Earl reluctantly agreed. He found two words wrong in the copy and said, "There's nothing wrong about it now, but it sure doesn't tell the cosmotron story." But he went ahead and recorded the draft for the newsreel screen. Imagine my surprise when I read in your obit that Earl spoke Yiddish until he went to school. As best as I can recall, he didn't learn that Lawrence had been rejected because of his Yiddish accent.

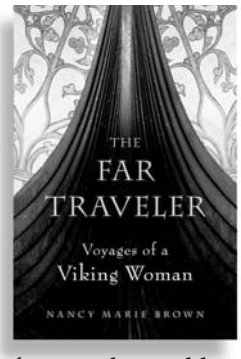
Richard Magat
Bronxville, N.Y.

BOOKS BY AND FOR MEMBERS

By Ruth Winter

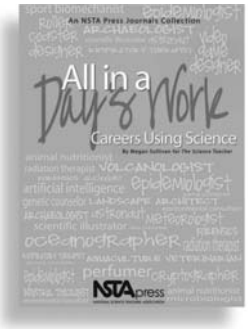
***The Far Traveler: Voyages of a Viking Woman* by Nancy Marie Brown (NASW), published by Harcourt.**

In the year 1000, Leif Eriksson discovered America. Five years later his sister-in-law, Gudrid the Far-Traveler, and her second husband led an expedition to this new land that the Vikings called Vinland. Born in Iceland Gudrid twice tried to establish a Viking colony in North America. She lived in



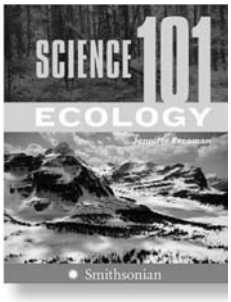
the New World for three years, giving birth to a son and joining her husband, Thorfinn Karlsefni, on explorations throughout the Gulf of St. Lawrence and perhaps as far south as New York harbor. When the Vikings failed to gain the trust of the native people, Gudrid convinced Karlsefni to return to Iceland. Widowed a few years later, Gudrid ran a large farm and raised her children during the turbulent years following the conversion of Iceland to Christianity. She prospered and endowed a church and as an old woman set off on a pilgrimage to Rome. "I stumbled on the idea for the book when I was working as a science writer for *Research/Penn State* magazine," author Nancy Marie Brown says. "A faculty member who knew of my interest in Iceland called to tell me about the archaeological survey he was working on in northern Iceland. When he told me their remote-sensing devices had found a Viking-Age longhouse at Glaumbaer, I immediately recognized the name as the farm Gudrid the Far-Traveler had retired to, according to the sagas. I had long been searching for a way to connect my two personalities—as science writer and Icelandic saga scholar—and the story of Gudrid was it." Brown helped excavate Gudrid's last house and learned the techniques archaeologists now use to explore the world of a thousand years ago. She interviewed Icelandic experts on turf house building, ecology, soil science, sheep farming, and climate change. She also investigated Viking shipbuilding and navigation, ivory carving, skeletal studies, and ancient textile production. *Kirkus Review* wrote of the book: "…a marvelously sneaky history of the Viking mind. A nimble synthesis of the literary and the scientific that will charm even readers who didn't know they were interested." Brown can be contacted at nmb@nasw.org. The book's publicist is Sarah Melnyk (Sarah.Melnyk@harcourt.com).

***All in a Day's Work: Careers Using Science* by Megan Sullivan (NASW), published by NSTA Press.**



Sullivan says this, her first book, is aimed at giving students of all ages a taste of the diversity of careers in which science is used. The book profiles 34 people who use science in their daily work and provides readers with a glimpse of what it is like to actually apply science in the real world. The careers range from the expected—high school science teacher, microbiologist, and forensics technician—to the perhaps unexpected—firefighter, landscape architect, and historical archaeologist—to the adventurous—astronaut, deep-cave explorer, and oceanographer—to the offbeat—roller coaster designer, perfumer, and sports biomechanist. "As the associate editor of a science-education journal, *The Science Teacher*, I found a career that combines two of my passions—science and writing. But my path wasn't a straight shot," Sullivan says. The book is a collection of Sullivan's columns in *The Science Teacher* in which she tries to inspire our future scientists. *School Library Journal* wrote of the book: "Grade 9 Up… From astronaut to video-game level designer, each entry poses questions that go beyond basic education requirements and job responsibilities. Some vary by field; an oceanographer is asked, 'What has been your scariest experience?' 'What is your biggest accomplishment?' In describing a typical day and in giving advice to students, each individual puts a personal spin on the positive characteristics of the career choice. While not all fields included require advanced degrees, all require an interest in math and science. An excellent choice for career collections, Sullivan's book not only encourages students to take as much math and science as possible in high school, but also emphasizes the commitment to lifelong learning critical for most 21st-century jobs." Sullivan can be reached at megan_s@nsta.org.

***Science 101: Ecology* by Jennifer Freeman (NASW), published by HarperCollins.**



A general interest introduction to the field of ecology, the book's topics range from carbon basics to environmental ethics. "My aim is to help readers understand how ecology—unraveling the mysteries of the Earth's intricate and interconnected processes—can help chart a sustainable course for humans and other life on Earth," Freeman says. In the past, she's written on ecology and environmental topics for The Earth Institute at Columbia University, Union of Concerned Scientists, Natural Resources Defense Council, and other informed audiences with a strong, often professional interest in the topics. "This book was a chance to bring the environmental concepts that interest me most, including poverty, justice, and climate issues, to a general interest audience. While writing I tried to look at the discussions going on in each corner of the profession—by following academic papers, conferences and news stories as well as classic writings and texts—so that I could present topics in engaging little general interest pieces but also capture the most up to date concepts in every corner of this sprawling field." Jeffrey D. Sachs, director of The Earth Institute at Columbia, wrote of the

ASJA/iUniverse books

[*Editor's note: The following describes columnist Ruth Winter's experience in self-publishing using iUniverse and Internet publicity resources to extend the life span of two of her books.*]

by Ruth Winter

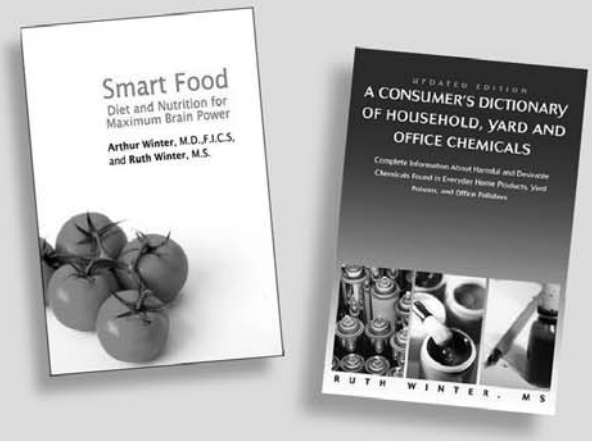
***Smart Food: Diet and Nutrition for Maximum Brain Power* by Arthur Winter, M.D. and Ruth Winter, M.S. (NASW) and *A Consumer's Dictionary of Household, Yard and Office Chemicals* by Ruth Winter, M.S., both published by ASJA/iUniverse books.**

Smart Food, first published by St. Martin's, was printed free of charge through an arrangement between the American Society of Journalists and Authors (ASJA) and iUniverse. For those ASJA members who opt for just a reprint, there can be almost no changes in the text. iUniverse produces a very nice new cover for free and also has the book listed on Amazon, Barnes and Noble, and other book sites.

A Consumer's Dictionary of Household, Yard and Office Chemicals, first published by Crown, had to be completely revised and I did not have it on a disk. iUniverse charged me $323 to scan it after I had revised it.

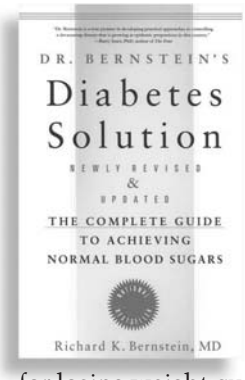
Through NASW member Lucy Kavaler I learned of some sites for Internet publicity, including **pr.com**. Whether you have your book published yourself or have a major publisher do it, you will now have to promote your book on your own. You do receive higher royalties with iUniverse and receive them more frequently than twice a year, as is the case with conventional publishers.

My website is **brainbody.com** or I can be reached at ruth@brainbody.com or 973-376-8385.



book: "A superb introduction to ecology and sustainable development. The book captures the beauty and richness of the world's biodiversity, the excitement of the scientific field of ecology, and the drama and challenge of sustainable development. It is clear, accurate, and filled with wonderful photographs and diagrams that help to illuminate the remarkable range of topics discussed in the book." Publicist is Gretchen Crary at 212-207-7582 or gretchen.crary@harpercollins.com. Freeman can be reached at jbfreem@nasw.org.

***Dr. Bernstein's Diabetes Solution: The Complete Guide to Achieving Normal Blood Sugars Newly Revised and Updated* by Richard K. Bernstein, M.D. (NASW), published by Little, Brown and Co.**



In his newly revised and updated book, Bernstein provides an accessible, detailed guide to his approach to controlling blood sugars. He offers the most up-to-date information on new products, medications, and supplements. He explains the connection between obesity and type 2 diabetes, describes how to interrupt the cycle of obesity and insulin resistance, and reveals a new method for losing weight quickly and easily. He also explains the most recent breakthrough science and potential cures. He has a private practice in Mamaroneck, N.Y. devoted to diabetes and pre-diabetes and is on the faculty of Albert Einstein College of Medicine. He, himself, has had diabetes for more than 60 years. You can reach him at diabetes@scientist.com. The press representative, Carolyn O'Keefe, can be reached at carollyn.okeefe@hbgusa.com or by telephone at 212-364-1464. ■

Send material about new books to Ruth Winter, 44 Holly Drive, Short Hills, NJ 07078, or e-mail ruthwrite@aol.com. Include the name of the publicist and appropriate contact information, as well as how you prefer members get in touch with you.

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