
Inside the AMS

AMS Congressional Briefing

“What does water know about mathematics?” was the question posed at an AMS-sponsored congressional lunch briefing on Capitol Hill on July 19, 2000. Mary F. Wheeler, director of the Center for Subsurface Modeling of the Texas Institute of Computational and Applied Mathematics, University of Texas at Austin, described her research to an overflow audience of over ninety congressional staff members and invitees from the National Science Foundation, other agencies, and scientific societies. Organized by the AMS Washington Office, the briefing was cosponsored by Congressman Vernon Ehlers (MI), a staunch supporter of science, and Congressman Ralph M. Hall (TX), ranking Democrat on the House Science Committee.

Using vivid slides and computer animation, Wheeler discussed how mathematics, computer modeling, and information technology contribute to the solution of ecological problems: in particular, groundwater, wetlands, and surface water contamination, and the movement of water by storm surges and hurricanes. She used the examples of the Ogallala formation to describe how scientific research helped efforts to avoid contamination of the aquifer (the water source for several states) by the PANTEX facility, near Amarillo, Texas, where plutonium storage, nuclear weapons disassembly, and explosives testing posed the threat of contamination. Teams of scientists, mathematicians, and engineers work to describe accurately the geology of the site, the location of water and contaminants and their movements and chemical interactions, and cost-effective remediation strategies. Using computer animation of Hurricane Betsy (1965), Wheeler demonstrated the accurate detail provided by computational advances and

noted the implications for accurate prediction of future storm surges. She stressed how the advances in computing capability of today’s parallel computers, plus advanced mathematical formalisms and computational methods, result in the capacity for physical descriptions in unprecedented detail.

Wheeler summarized that, while water knows nothing of mathematics, mathematics can tell us about water—where it is going and how fast, and how contaminated it will be when it gets there.

—Monica Foulkes, AMS Washington Office

A Summer at *Time* Magazine

In the summer of 1999 I spent ten weeks at the Washington, DC, bureau of *Time* magazine as a participant in the AMS-AAAS Mass Media Fellowship program. During a weekly story conference, Mike Duffy, bureau chief, decided it would be a great idea if we went around the table and confessed our biggest risks. In addition to the risky business of driving or biking to work every day, one person claimed the broccoli soup in the nearby cafeteria was quite a risk, while another would not divulge his secret risk due to legal ramifications. When it was my turn, I joked that working for a summer with *Time* science writer Dick Thompson was the biggest risk I had ever taken.

While that roused a laugh, I was serious that taking a summer out of my graduate studies in mathematics to be a journalist while all of my peers remained in school studying diligently for the qualifying exams was quite a risk. I have since rejoined the ranks of my fellow graduate students. On the first day of classes in the fall of 1999,

though, I possessed something that the others did not: the knowledge that there is much more to life than learning theorems or studying for the quals. This knowledge actually has made me a better mathematician.

My summer mentor, Dick Thompson, is the only science writer at the Washington bureau of *Time*, and this means he is very independent. He has twenty-plus years of experience and could teach volumes about how to succeed in this business. He was so busy, however, that I realized if I was going to tap into his wealth of information, I would have to actively seek it. My advice to future interns is not to expect mentors to have summers planned out. Expect to have much more freedom to pursue your own initiatives and ideas than you have in graduate school. When I told Dick I wanted more guidance, he entrusted me to gather and report back information from Capitol Hill on a story he was doing about the politics of global warming. The story ran in the August 9, 1999, edition. It was my first byline, and it was the push I needed to begin working on my own.

One of the challenges for a new intern is to learn quickly what constitutes a good story suggestion, because at a newsweekly every writer is competing for a tiny amount of science space in the magazine, usually about three pages. I found that I suggested good stories when a general theme was requested by an editor. For instance, one editor requested story suggestions to run in the special issue of the *Time for Kids* magazine. The issue, called "Heroes for the Planet", focused on saving special places. I decided to look at the prairie, interviewed a person who is leading a program to save that habitat, and reported the story to New York. It was published in October 1999.

The editor later requested stories about heroes saving wildlife. I found a woman who is using a unique solution to save bears in Canada and the northwest United States. What was especially exciting is that, in addition to accepting the suggestion, the editor sent me to Canada to report the story over Labor Day weekend. Unfortunately, the story did not run in *Time* magazine, but it did get published on the Time.com Web site in March 2000. My advice for future AAAS interns would be to focus energy on suggesting stories to the publication's Web site, because there is much less competition and hence greater opportunity for bylines.

As the summer heated up in July, so did my workload and productivity. One of the ways I kept busy when Dick was on vacation was to visit the National Press Club to hear former astronaut Buzz Aldrin speak. Throughout the summer Dick would send me out to cover various news conferences. These provide great experience for a budding science reporter, because they test fundamentals of reporting, such as interviewing and writing suggestions for stories. Among the press conferences I attended was one held by NASA on the Chandra X-Ray Observatory before its launch and one by the National Ecological Society about the necessity of biological diversity in agriculture. These provided good experience, even though none of my story suggestions was accepted.

I have learned more from Dick about reporting than any class could teach. In addition to our work together on the story about global warming, another example is

noteworthy. We were working on a story about people buying and selling drugs on the Internet without a prescription. I found a man who operates his own Web page for this purpose and asked Dick if I could interview him for the article. To my surprise Dick said no, but he wanted me to listen in while he did the interview. When the hour interview was over, we discussed the entire process, and I came away with a wealth of interviewing techniques. He also raised many interesting legal issues surrounding this story, which we debated. For instance, should we interview and print the names of people who buy pharmaceutical drugs illegally on the Internet? Do we even have a credible story if we cannot convince people to allow us to print their names? Eventually we decided not to do the story.

Shortly after I arrived in Washington and met Dick, I made it a goal to soak up every ounce of experience and make the most of what the summer had to offer. Looking back on those ten weeks, I can say that all of my expectations were not only fulfilled but exceeded. From a weekend at the Time, Inc., executive suite in New York to box seats at an Orioles game, from bylines in *Time* magazine to living in the exciting city of Washington, DC, I had a great summer. For the first time I felt that I was tuned in to the world and was directly contributing to society. It is a life that seems to fit me quite well, and I could see myself as a science writer someday, possibly as a part-time freelancer. The summer truly was a life-changing experience.

Postscript: At the end of the 1999-2000 academic year, I left graduate school at Purdue University to take a job in information technology at the University of Maryland University College. Now I am working with computers and the Internet, not journalism or mathematics. However, my work at *Time* put me in a position to write on a freelance basis computer-related articles, especially on the topic of open source software.

—Brian Allen, University of Maryland University College

Note: The deadline for applying for the AMS-AAAS Mass Media Fellowships is traditionally January 15. Further information is available in the "Stipends" section of this issue of the Notices and on the AMS Web site <http://www.ams.org/>.