



Katie Hafner: The Origins of the Internet

Charles Severance

Katie Hafner describes how she came to write her book, *Where Wizards Stay Up Late*, about the history of the Arpanet.

he Arpanet was quietly decommissioned on 28 February 1990. The modern Internet, with its speed, graphics, and video, might make its precursor seem like a dusty antique from a much earlier age, but today's Internet owes a tremendous amount of its success to research done while building the Arpanet.

Back in 1993, Katie Hafner, then a *Newsweek* reporter and co-author (with John Markoff) of *Cyberpunk: Outlaws and Hackers on the Computer Frontier*, decided to write a book about the Arpanet's history before it disappeared forever. I recently interviewed Hafner about 1996's *Where Wizards Stay Up Late: The Origins of the Internet*. You can see the entire interview at www.computer.org/computingconversations.

AN IDEA FORMS

Hafner became involved in the book project on the recommendation of friends. As the work progressed and its scope expanded, her husband, Matthew Lyon, became involved in the project:

There was this whole world of coders and hardware guys in the 1960s, and I thought to myself, "I bet there's an interesting story in here." My editor at Simon and Schuster was totally behind it, but the working title was really bad: "Building Cyberspace." Matt, my late husband, didn't come on until about a year into it, when I was getting overwhelmed—I had this new baby, I was working at Newsweek, and I realized that there was much more to the story than I could do by myself. It would have taken double the time.

The book research took over three years, as Hafner visited with and interviewed key members of the Arpanet team:

One of the most amazing things was visiting Larry Roberts. We were at his house in Woodside, and we went out into his garage, which had all these boxes of old mildewy papers—old letters from the 1960s between Larry and the people at MIT. They also contained this amazing set of sketches of all the possible configurations of what this network could look like. I just loved finding all this incredible primary source

material. I felt like I should be paying somebody to do this.

She started visiting Boston, Washington, DC, and Los Angeles, and attending various Internet Society and Internet Engineering Task Force meetings and conferences:

The research took a couple of years. *Cyberpunk* involved driving everywhere because it had three different stories of three different hackers. Between that book and *Wizards*, email had become much more popular, so we did a lot of emailing back and forth.

I was living in Austin at the time, and I took a lot of trips from Austin to Boston, and I spent a lot of time in Los Angeles.

One of the Arpanet leaders with whom Hafner spent a lot of time was Jon Postel, inventor of the Domain Name System:

He died in 1998, which was a shock. I spent a lot of time with Jon. He had this very long Santa Claus-like beard and lived in a tiny house in the LA area with his girlfriend, a very nice woman named Susan. Jon lived so

unpretentiously. He had all his files right there in his study in this little house, and he was so patient as he tried to explain things to me. When I was working on the book, I sent him an email that said, "Just out of curiosity, why haven't you ever wanted to get rich?" That was when people were starting to get rich, in the mid 1990s. He replied, "That's not what this is about." That's who he was

SHINING A LIGHT

I asked Hafner why she thought the mainstream computing and networking companies effectively ignored the ideas behind the Arpanet for such a long time:

Think about it—back then, the 1960s, AT&T was a monopoly. The people running AT&T simply didn't see it; they were in their own context, and, really, thank goodness they didn't get their hands on this thing. Ditto IBM and DEC. It sounds terrible to say this, but it was a happy accident of coincidences.

Another issue is the role of the government in creating the funding and policy conditions to allow work like the Arpanet to exist and thrive. I asked Hafner how she saw Al Gore's place in the history of the Internet:

Al Gore is totally underestimated and unappreciated. Every time I tell people I wrote a history of the origins of the Internet, they say very mockingly, "Oh, did Al Gore invent it?" I won't play into that because he had a huge role in terms of policy and direction. When Bill Clinton ran for president, they were out there with this very important technology white paper. You can't do things like this unless you have the support that people like Al Gore provided.

Interested readers might want to read the article that Gore wrote

in the December 1994 issue of *Computer*, "Innovation Delayed Is Innovation Denied" (pp. 45-47).

I just loved finding all this incredible primary source material. I felt like I should be paying somebody to do this.

e in the computing profession are often far too quick to drop last year's model and replace it with next year's shiny toy. We forget the moments when a technology truly was breakthrough and instead focus on its later iterations, which are naturally more polished and widely

used. Books like Katie Hafner's Where Wizards Stay Up Late do a wonderful job of capturing these breakthrough moments close to the time when they actually happened. Thanks to her and other writers like her, when we finally realize the importance of these breakthroughs many years later, we can go back and learn from those who made them.

Charles Severance, Computing Conversations column editor and Computer's multimedia editor, is a clinical associate professor and teaches in the School of Information at the University of Michigan. Follow him on Twitter @drchuck or contact him at csev@umich.edu.

Selected CS articles and columns are available for free at http://ComputingNow.computer.org.