



Flame Retardant



Bugs in the System

Cockroach World (www.nj.com/yucky/) proudly bills itself as "the yuckiest site on the Internet." With witty illustrations and insights into the lifestyles of our helmeted friends, Cockroach World makes pestilence downright cute. Created by New Jersey Online & Liberty Science Center, this site has more roaches than an entire block of East Village walk-ups.

— Mary Elizabeth Williams

Flames are an environmental hazard of cyberspace. They sneak up on you, drop into your mailbox, and — *wham!* — burst across your screen in an irritating profusion of venom and bile. Flames are verbal attacks spread by computer-mediated communications, and they're all over the Net. That's what drove Ellen Spertus to write *Smokey*, an AI-based system that automatically detects flames before they explode in your face.

Spertus created *Smokey* last summer while working at Microsoft Research. The system, which uses an experimental natural-language parser, a decision tree, and a bunch of Lisp

code, can actually separate flames from ordinary email messages. This makes it easy to file them away for reading later — or never at all.

To develop the program, Spertus worked with webmasters from three controversial Internet sites — Fairness and Accuracy in Reporting, NewtWatch, and The Right Side

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of the Web. With more than their fair share of hate mail, these sites were only too happy to provide her with copies of messages they'd received.

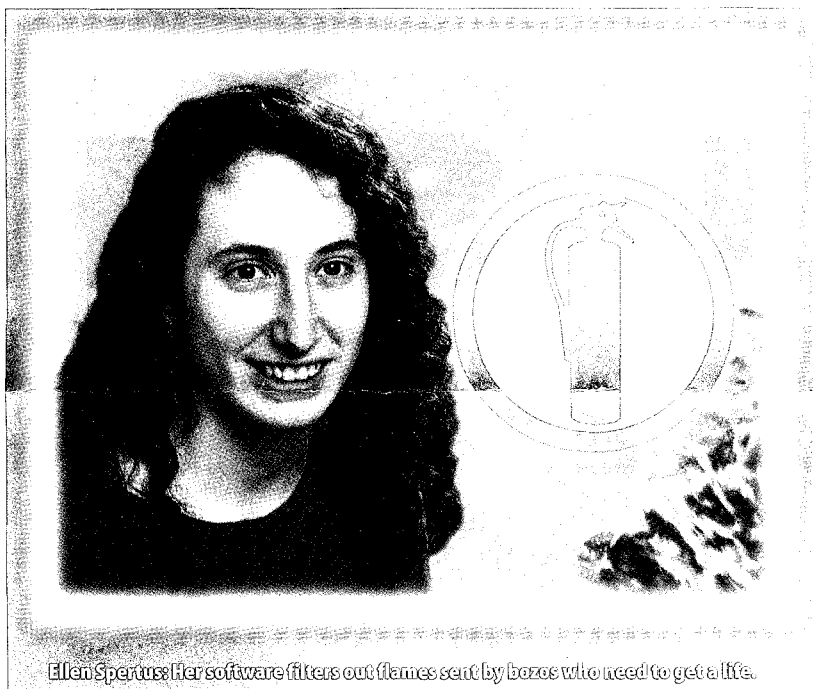
Right off the bat, Spertus realized that one site's flame is another site's fan mail. To solve this problem, she developed a set of linguistic rules for detecting flames and a set of site-specific plug-ins for villains and heroes. Thus, an email to NewtWatch bemoaning Slick Willy (President Clinton) is quickly identified as a flame, whereas the same note sent to The Right Side of the Web scores high marks for accuracy.

Spertus also learned that even though flammers target different enemies, they often share a common grammar. They tend to use noun phrases as appositions — for example, "you bozos," "you flammers," and "you people." Likewise, these irate mailers often use the word *get* followed (within 10 characters) by the words *life*, *lost*, *real*, *clue*, *with it*, or *used to it*. Fifty of these such rules, fired in rapid succession, allow *Smokey* to distinguish good from bad mail.

Spertus believes *Smokey* demonstrates that automated, intelligent email filtering is possible. She also thinks other applications could benefit from her research. "When mail comes into a company, a program like *Smokey* could direct it to the right department," she predicts. "That way, big companies such as IBM wouldn't have to hire dozens or even hundreds of people to read incoming messages from some info@ibm.com address."

After recently handing the project over to Microsoft, Spertus plans to finish her PhD at the University of Washington and MIT. Now it's up to Chairman Bill to decide *Smokey's* fate.

— Simson L. Garfinkel



Ellen Spertus: Her software filters out flames sent by bozos who need to get a life.

Miracle Dealer

Diana Creer-Berti has cerebral palsy, suffers chronic muscle spasms, can't type, can't talk, and uses a wheelchair to get around. Yet this hasn't stopped her from earning an associate's degree and writing two books.

She owes much of her success to Don Dalton, president of Micro Overflow Corp. of Naperville, Illinois. Dalton is a miracle dealer who helps people such as Creer-Berti use computers to lead more productive lives.

"People with disabilities want to work more than anyone," Dalton says. "Although they might not be able to type 100 words a minute, many can talk it. With today's technology,