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As far as the Senate is concerned, 'Dr. E-mail' is in Software from Cambridge's General Interactive goes to Washington

By Chris Reidy
GLOBE STAFF

A HARVARD SQUARE COMPANY THAT HAS devised an artificial intelligence software package that can read and respond to e-mail confirmed yesterday that it has a new client - the US Senate.

The company is General Interactive Inc. of Cambridge, and it was cofounded by V.A. Shiva, an MIT graduate who bills himself as "Dr. E-mail."

Shiva and GII have come up with an automated system that, in theory, would allow computers, rather than people, to answer many of the e-mails voters send to their senators.

That could come in handy for the Senate, which a few

months ago was awash in e-mails churned up by the impeachment hearings.

"This solution will help senators reduce processing time when tracking and responding to e-mail received from their constituents," said Steve Walker, the Senate's manager of Web and technology assessment.

Terms of the contract were not disclosed.

The Senate contract is quite a coup for Shiva and GII.

Five years ago, Shiva was running a start-up that helped Cambridge artists sell their work on the Internet.

Today GII makes a software package called EchoMail that analyzes, tracks, and responds to e-mail - in most cases without requiring a human to read individual e-mail messages.



GLOBE STAFF PHOTO / SUZANNE KREITER

From left, GII's Bruce Padmore, Zoe Helene, and V.A. Shiva, have developed a system that allows computers to answer e-mail.

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General Interactive gets Senate as client for electronic mail system

■ GII

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Among the firms that have hired GII are Nike Inc., AT&T Corp., and IBM Corp. According to Shiva, the same technologies that have helped another client, Calvin Klein Inc., sell perfume may be an ideal tool for 21st century democracy.

EchoMail "is a phenomenal tool for listening to constituents," said Shiva, 35, a one-time wunderkind who worked on his first e-mail system as a New Jersey teenager.

Bored by high school, Shiva became part of a team that devised a pioneer e-mail system for Rutgers University in 1979.

Two years later, he enrolled in the Massachusetts Institute of Technology, where over the years he has studied pattern-recognition analysis, a key component to EchoMail.

According to Shiva, EchoMail is the digital equivalent of an oil refinery. At an oil refinery, raw crude is pumped through various filters that separate it into coal, tar, and petroleum.

EchoMail uses several methodologies, including artificial intelligence and pattern-recognition, as its filter as it refines a volume of e-mail.

Recognizing words by their shapes, the system can log, route, track, understand, and respond to pers on those issues, string together prefabricated paragraphs from its data bank, and then fuse them into a coherent, seemingly personalized whole that would be sent as a response.

In most cases, a human aide in the Senate office would never read the constituent's e-mail; EchoMail would simply extract all useful information from the message and log the constituent's concerns and e-mail address into the Senator's data bank.

Instead of having to sift through thousands of messages, a Senate aide could simply be presented with EchoMail's overview of what's on the minds of voters.

To a business that receives 60,000 e-mail messages a month, the potential cost savings can be enormous. According to Shiva, it can cost a business about \$9 to process a consumer inquiry by telephone. It can cost the same business about \$5 to have a person read a consumer's e-mail and respond to it.

But for a business client using EchoMail, the cost of analyzing and responding to a consumer's e-mail can drop to under \$1, Shiva claims.

There may be other benefits as well. EchoMail yields more valuable information for a client's customer data base than a call center processing a phone call, said Bruce Padmore, GII's chief technology officer and another MIT graduate.

According to GII, EchoMail processes about 80 percent of a company's incoming e-mails without human intervention; the remaining 20 percent is referred to EchoMail's human acolytes.

Shiva offered examples of how EchoMail has worked for his clients. Nike, for example, was recently the subject of allegations that it uses sweatshop labor, prompting many people to write angry e-mails to the Oregon sneaker company.

GII's EchoMail sorted those complaints by attitude - just how mad was the e-mail writer? In many cases, the writer had mixed feelings: Love the sneakers; hate the labor practices.

To each group, EchoMail could send an e-mail response, thanking writers for their interest and directing them to a special Web site created by Nike's public relations team. At the Web site, Nike sought to refute the allegations.

Not only did EchoMail help with damage control, but it also let Nike send follow-up e-mails a few weeks later, once writers had cooled off. A follow-up e-mail might alert someone to a new product or forward a firm's newsletter about women's soccer.

Last fall, GII was part of a team that developed an e-mail soap opera

thousands of e-mails. The software is so semantically sensitive that Shiva boasts it can detect the attitude of an e-mail's writer.

In the case of impeachment, the system could have categorized huge volumes of e-mail into voters for and against impeachment; those strongly pro Clinton and those who detested him; those from a Senator's state and those who were not; and Democrats vs. Republicans.

(All this assumes, of course, that a constituent reveals this information in the contents of the e-mail.)

What's more, EchoMail can update e-mail sentiment on a real-time basis, giving it some of the aspects of an instant opinion poll. How was impeachment sentiment faring today vs. yesterday? This morning vs. this afternoon?

"People tell you who they are in an e-mail," he said. "So you can extract valuable data from studying a person's e-mail, and that can go into a company's marketing data base."

What's more, EchoMail can use that data to compose and send an e-mail response to the sender of the original e-mail.

Suppose a constituent e-mails a Senator to express concern on such subjects as Medicare and gun control. In theory, EchoMail could sort through the senator's position path that was the heart of a marketing campaign for cK one, a fragrance from Calvin Klein.

Conventional ads introduced a plot line and the soap opera's initial characters. The ads also invited the public to send e-mails to the characters they identified with. Consumers who responded had their e-mails answered seemingly by the characters, but, in reality, it was EchoMail sending the messages.

"You might get e-mails two days in a row, and then not hear from them for a week," said Calvin Klein publicist Diana Lin. "It's just like in real life."

Many young consumers resist the hard sell of conventional advertising but seem more comfortable with revealing information about themselves in a medium such as e-mail. "This is about establishing relationships," said Shiva of Calvin Klein's strategy to cultivate brand loyalty.

GII is hardly alone in promoting e-mail as a marketing tool. Many big advertisers now recognize that e-mail should be a part of their Web marketing efforts, said Melissa Bane, director of Internet marketing strategies for the Yankee Group, a Boston consulting firm.

Several firms, including GII, have sprung up to serve that need, and Bane envisions a future period of consolidation when some of these firms could be acquired by the likes of IBM, Microsoft, or portal companies such as Lycos or Yahoo.

GII makes money in two ways. It sells EchoMail to clients, then charges them based on the volume of e-mail it processes. A private company, GII discloses no financial information.

When the company was formed five years ago under a different name, its initial mission was to help Cambridge artists build Web sites to sell their work on line.

At its founding, the company brought together Shiva, who was studying for his doctorate in pattern recognition; Padmore; and Zoe Helene, a Brandeis University artist who once aspired to be a Disney animator and is now GII's chief creative officer.

Over time, Shiva saw his doctoral studies in pattern recognition and his interest in Internet marketing converge.

Explaining Shiva's change in focus from helping struggling Cambridge artists to becoming "Dr. E-Mail" to Fortune 500 companies - and now the US Senate - Helene said, "At some point, we needed a way to pay the rent."