

Trying to control the Net Patent he seeks could affect all Web browsers

CHICAGO -- Michael Doyle wants to crash the Internet party, to muscle in on power companies like Netscape Communications, Sun Microsystems, Microsoft and others.

To that end, the co-founder of Eolas Technologies -- pronounced e-O-lus -- is relying on an increasingly controversial wedge: a software patent claim, now pending with the U.S. Patent Office. Doyle says the patent would cover all Internet ``applets,' ' or mini-programs, stored on powerful computers on the Internet. Computer users download those mini-programs on their computers and run them with software called a browser.

Applets are fast becoming the rage of the Internet. And if the patent is issued, Doyle could become a virtual household name. ``I'll have options,' ' deadpans Doyle, 36, speaking in his top-floor office suite, which sports hazy views of Lake Michigan and the Sears Tower.

A handful of small companies already are staking claims to patents that could make them rich as Internet usage takes off. But the burly Chicagoan, who pretty much bleeds Bears blood, says his motives are honorable. He wants to use the leverage a patent would confer to force other companies to join a new consortium, led by Eolas, that would establish standard ways of publishing and manipulating data or running programs via the Internet. That, he says, would help the entire industry work together better and head off a costly, confusing standards war.

``We're hoping to use the patent to clear up the industry hodgepodge,' ' Doyle says.

But he is adamant that if he is ignored, he has the option as a patent holder to extract a licensing fee from just about every company that offers Web applets or sells Web applet technology. If they don't negotiate,

he could seek an injunction barring them from the technology. Such action would make him the ultimate toll-taker on the Internet -- and Pariah No. 1. For now, he's merely a wild card, albeit one warily watched.

Sun, after all, markets a hot programming language called Java to create applets. Netscape, Microsoft, Oracle and others make browsers that can run applets. And scores of companies are deploying applets to create such things as scrolling stock and sports tickers, 3-D animations, spreadsheets and programs that draw information from databases. If Doyle's claims are granted, all these companies would have to bow to his patent, he claims.

``Of course it could cause us difficulty if it were valid and enforceable, '' says Lee Patch, vice president at Sun. ``But it has to be an awfully pioneering patent to justify the kind of breadth Doyle is claiming. Is Doyle another Thomas Edison?''

Doyle's lawyers have told him the patent office could make an initial ruling within 60 days.

Larger controversy

Doyle's gambit highlights a troubling issue in the industry: the legitimacy of software patents, especially if companies claim their patents apply to commonly used technologies. Some companies have tried to use such patents to extract fees from the entire industry. The most famous case: Compton New Media, which won a patent in 1994 covering a commonly used way to search and retrieve sound, text and video in computer programs. The tiny company publicized its intention to charge anyone using such technology -- basically the entire industry. But so great was the ensuing uproar that Patent Commissioner Bruce Lehman, in a rare move, re-examined the patent himself and invalidated it.

Other patent battles are playing out on a smaller scale, says Greg Aharonian, publisher of Internet Patent News Service. Interactive

Gift Express (now E-data Corp.) in August sued 21 companies, including Adobe Systems, CompuServe and McGraw-Hill. It claimed they were infringing on its patent that covers ways to sell software electronically. E-Data has notified 150 other companies that they too are infringing. Critics of E-data's claims say the patent is bogus because the technology is widely used and thus not original. ``You'll be seeing more and more stuff like this,' ' Aharonian says.

With the software industry expanding, the U.S. Patent Office has been swamped with applications. In 1995, it received 11,714 software patent applications, up 24% from a year earlier. Aharonian and others have excoriated the office for granting patents without enough information.

The problem, Aharonian says, is that it's extremely difficult for patent examiners, even with tougher guidelines announced this month, to search the universe of software to determine whether a program is new. It's also hard to ferret out obscure technical papers that might have described a similar software concept. And the sheer complexity of modern software multiplies the problems.

Internet experts expect more profiteers -- spurious or not. ``There will be hundreds of people who show up with patents and claim that everyone who uses the Internet should pay them. Most of that will be bogus,' ' Microsoft CEO Bill Gates says. ``But remember, this is a gold rush. I'm surprised there aren't more.' '

Doyle is undaunted

The soft-spoken Doyle is bent on staying off the industry's list of rogues. He notes that not every software patent is illegitimate. In a celebrated case, tiny Stac Electronics won a suit against Microsoft, claiming the software giant's DOS 6.0 software used a data compression technology covered by a Stac patent. Stac ended up with a roughly \$80 million settlement from Microsoft.

Doyle has no doubt the technology now used by Netscape and Sun to embed and run applets in a browser was inspired by him. He says he pioneered the technology while he was a professor at the University of California-San Francisco in 1993, where he was doing research in medical imaging. He enhanced a version of Mosaic, the pioneering browser developed at the University of Illinois, Champaign, to run applets that could manipulate and display complex renderings of the human anatomy over the Internet.

Sitting in front of a Silicon Graphics workstation in his office, Doyle shows off such an applet. He uses a browser to call up an MRI brain scan of a former employee over the Internet. He slices, dices and rotates the image. ``See, there's the white matter, the gray matter. And there's his ear,' he says, with a giggle.

He is convinced Netscape and Sun officials attended some demonstrations in 1993-94. ``I'm not going to name names,' he says.

In pursuit of the patent

After extensive research by law firm Townsend and Townsend and Crew, the University of California-San Francisco in October 1994 applied for a patent for Doyle.

The university also contacted 85 companies about buying the exclusive rights to the patent. ``But we couldn't interest anyone,' says spokeswoman Candace Voelker. Convinced the technology would take off, Doyle formed Eolas with fellow researchers David Martin, Cheong Ang and Rachelle Tunik to buy the exclusive rights and commercialize the technology. He then moved back to Chicago.

Doyle's plans, laid out in a manifesto of sorts in software magazine Dr. Dobb's Journal, are to grant no-fee rights to the technology to anyone agreeing to join a new consortium, which would work with Eolas to develop technical standards that all Internet companies would adhere

to.

To further his goal, Doyle has tried to form alliances with Sun and Netscape but has made no progress. Last December, an investment-banker friend of Doyle set up a meeting between Doyle and Ruth Hennigar, general manager in the Java products group. Doyle flew to Palo Alto ``with great hopes. A deal like that could have helped in our fund-raising efforts,' ' Doyle says. On the morning of the meeting, he called her from the lobby of the Stanford Park Hotel to get directions. She apologetically informed him that she would have to cancel the meeting.

Doyle is betting Eolas, which aims to market a broad range of Net software and is seeking \$5 million in financing, will be heavily courted soon. And he's more than willing to deal.

If you're a leader in the Internet industry, ``here's your worst nightmare: The patent is issued, and your worst enemy owns it. What if someone like Larry Ellison owns it?' ' Doyle says, referring to software-company Oracle's flamboyant CEO, who has designs on the Internet software market. ``What would Microsoft or Netscape think?' ' Doyle smiles, relishing for a moment his wild-card status.

But he is absolutely serious when he claims, ``The world has become addicted to the technology we've created.' '

TEXT OF BIO BOX BEGINS HERE:

About Michael Doyle

Title: Co-founder of Eolas Technologies.

Age: 36.

Home: Wheaton, Ill.

First invention: At 12, he designed an artificial gill, which extracted oxygen from water. It won several science fair awards.

Education: 1983, B.A., Medical Arts, University of Illinois, Chicago; 1989, Ph.D., Cell biology, University of Illinois, Champaign.

Meaning of company name: Eolas stands for Embedded Objects Linked Across Systems. Eolas is Gallic for "knowledge."

Hobbies: "Playing with my kids." -- ages 5 and 2.

James Kim, *Trying to control the Net Patent he seeks could affect all Web browsers*, USA Today, 03-26-1996, pp 01B.

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