

Patents out of control?

By Paul Davidson, USA TODAY

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Beach Photo & Video is no Amazon.com. At best, the family-owned, Daytona Beach, Fla., shop has been doing a modest business selling used cameras on the Web since 1996.

So owner Mark Robertson was incredulous last year when he got a letter notifying him he'd been sued by a technology licensing company called PanIP that claimed to own two patents that cover basic electronic commerce functions. (**Related story:** Top 100 private sector patent recipients in 2002 see below).

"I really couldn't believe it," says Robertson, 44. "Why me? The guy doing the littlest on the Internet."

He could either cough up about \$25,000 in licensing fees or fork over perhaps \$1 million or more in legal costs and hassles to fight the lawsuit in a Southern California court.

Instead, he shut down the Web site. "I didn't have the money. And, besides, it's like somebody broke into your house, stole all your stuff, and then asked you to buy it back."

PanIP and others have shaken up the Internet industry recently by demanding — and often getting — license fees from mostly small e-commerce companies after brandishing patents on everything from video streaming to Web browsing. The companies say they were targeted because they can't afford to defend themselves in court.

But patent lawsuits are a growing annoyance even for giants such as Intel and Microsoft. Industry and government officials say the lawsuits are but one symptom of a patent system gone haywire, especially in technical fields such as computers, software and biotechnology¹.

Critics say most of the patents are bogus — for inventions far from original. They are doled out, they say, by an overwhelmed U.S. Patent and Trademark Office (PTO) that is ill-equipped to judge arcane patent applications from software and Web businesses.

"Very bad patents are getting through," says lawyer Mark Banner, chairman of the American Bar Association's intellectual property section. "It's draining millions of dollars that could be spent on finding a better mousetrap."

But Jon Dudas, PTO deputy undersecretary for intellectual property, says most patents are valid — and those that are doubted can be re-examined by the PTO or challenged in court. He opposes the idea of ending software or Internet patents: "Our patent system has always been technology neutral."

The issue of dubious Internet patents first grabbed headlines in the late 1990s when Amazon used its "one-click buying" patent to sue Barnes & Noble, and Priceline.com sued Microsoft over rights to "reverse auctions." Criticism has been particularly directed at such patents for so-called business methods, saying they wrongly recognize old ideas recycled for the Internet.

¹ [I-TRIZ could offer services to both sides; our methods can benefit companies that are suing others for infringement and companies seeking protection from infringement lawsuits.](#)

But Jay Walker, whose Walker Digital patented the "reverse auction" and other Web concepts, defends such patents as crucial for innovation: "We as a nation are ahead of the rest of the world because we have strong property rights. Everybody said you couldn't have patents on electricity. Guess what? They were wrong."

The furor has been rekindled by a dot-com bust that left hundreds of companies with no assets other than their patents, many of which were scooped up by specialized firms whose sole business is to seek patent royalties.

The issue has become serious enough to discourage some small software and biotech firms from innovating for fear of being sued. No new companies are entering mainstream agricultural biotechnology because of overly broad patents on genes and research methods that limit their lab work, says Brian Wright, economics professor at the University of California-Berkeley.

UC-Berkeley would like to develop disease-resistant artichokes, barley and rice but can't because big companies own rights on the methods of inserting key genes into the plants. Yet those patent-holders are unlikely to develop the products because they are not lucrative. "They patented all the Legos that went into making the products," says Berkeley researcher Peggy Lemaux.²

Patents most benefit behemoths with huge patent portfolios. IBM, the No. 1 holder, has about 20,000 that generate more than \$1 billion a year in licensing fees. But even giants such as Intel bemoan a system they say forces them to use big chunks of research budgets to stockpile patents just to use for cross-licensing when other patent holders threaten them³.

A bigger problem for chipmakers, however, is companies that harvest patents rather than make chips. Like soldiers taking potshots from a bunker, such businesses can sue manufacturers without worrying about being sued.

"There are allegations out there that some of these guys are going around shaking down businesses," says Federal Trade Commission Chairman Tim Muris. In "extreme cases," he says, the FTC could start bringing antitrust cases to stem the practice.

In one antitrust lawsuit, the FTC says Rambus, a chip-design house, persuaded a standard-setting body to adopt a particular technology on which it secretly had a patent. Liberal patent rules even allowed Rambus to modify the patent based on market trends — and then it sued chipmakers for infringement. Rambus had no comment on the lawsuit.

"It's gaming the system," says Joel Poppen, who oversees patents for Micron Technology.

² **I-TRIZ could help small companies with protection from infringement cases and help invent-around before starting a project. Protection from possible infringement cases may be a part of their business plans. This idea also reminds ideas about originating a business of providing insurance to a patent.**

³ **Bid companies could benefit from Directed Evolution that will reveal a comprehensive set of directions worth protection.**

In a recent report, the FTC recommended reforms, such as better funding of the PTO and tighter patent-approval standards.

A system overwhelmed

By providing an exclusive right to make or use an invention for 20 years, a patent is designed to encourage inventors to invest in ideas. The first U.S. patent was granted in 1790 for potash, a soap and fertilizer ingredient. Thomas Edison's light bulb, Samuel Morse's telegraph and the Wright Brothers Flyer followed, as did patents for such things as underwater bicycles.

Before 1980, patents were rarely awarded for business methods and never for software. Courts deemed a software program a mathematical algorithm — simply a language that told a computer what to do. But in the 1980s, courts ruled that software merited a patent as long as it produced something useful.

Software patents skyrocketed in the 1990s. And a new U.S. court created mainly to review patent appeals eased approvals and made them tougher to challenge. In 1998, an appeals court affirmed "business method" patents.

The PTO awarded about 180,000 patents in 2002, nearly double the 1990 figure. Officials say they need about 700 more examiners just to whittle down a backlog of 500,000 applications. An examiner has an average of 20 hours to assess an application that can run thousands of pages and be sure there is no "prior art" — proof a similar invention or blueprint exists.

With software and Web ideas such proof often was not documented or is tough to find. And high-tech patent applications are "often written to be vague and confusing to give lawyers all the leeway in the world," says James Bessen, visiting scholar at MIT's Sloan School of Management.

Patents' need doubted

Critics also say patents are not needed to spark software innovation. They say that unlike pharmaceuticals, for example, development costs are low and product life cycles are short.

"If you didn't have any patents at all, people would still be doing the same stuff because of the speed of the marketplace," says Jordan Greenhall, CEO of DivX, a video-download software maker.

In fact, Greenhall says patents discourage innovation. DivX two years ago developed the first practical electronic ID, or "watermark," to track TV shows distributed by pirates on the Web. But he dropped the project after getting a patent royalty request. "I said, 'I'm not sure of the demand (for the product). I'm pulling out.' "

In the PanIP case, the company claimed patents granted in the 1980s on automated credit checks and virtually any computer exchange of data involving "textual and graphical information." Co-owner Lawrence Lockwood last year sued 50 small e-commerce companies. Many settled for one-time fees of less than \$30,000 rather than run up legal bills. Lawyer Jon Hangartner, who represents 16 that refused to settle, says CompuServe operated online shops in the 1980s and says the patents mention nothing about e-commerce. The PTO is re-examining the patent.

"Obviously, these are very broad patents. We don't disagree," says Lockwood's lawyer, Kathleen Walker. "That's the beauty of them. They're pioneer patents."

Among high-tech patent fights:



- Microsoft was ordered to pay \$521 million to Eolas in August after a jury found its browser infringed on Eolas' patent for technology that lets browsers access interactive functions on Web sites, such as rotating a picture. If the award is upheld, many Web sites may have to be redesigned.

Michael Doyle, the patent holder, says previous browsers were static. "The fact is, we demonstrated it to (Microsoft), and a couple of years later, they came out with exactly the same thing." But Web entrepreneur Tim O'Reilly says he helped design a browser capable of playing chess in the early 1990s. "This was all over the Web. The problem, of course, is documentation." The patent is being re-examined.

- In May, eBay was ordered by a jury to pay inventor Tom Woolston \$29.5 million for violating his 1998 patents on marketplaces that use trusted intermediaries to complete fixed-price sales. EBay lawyer Jay Monahan says the claim was "excessively broad." But Woolston says he sued only after talks with eBay failed and it stole his idea.

"What the patent system has done is give us a second chance," he says.

- Acacia Research has patents on audio/video streaming and downloading and is seeking royalties of 1% to 4% from adult sites, music sites, cable operators and e-learning services. Acacia has secured 100 licenses.

Critics say a new breed that simply collects royalties owns many of the new Web patents. "It doesn't contribute anything to the economy," Banner says.

Not so, says Rob Berman, Acacia senior vice president. "We invest a lot of money to develop these patents. Just because we don't make widgets doesn't mean we don't have the same rights to license as everyone else."