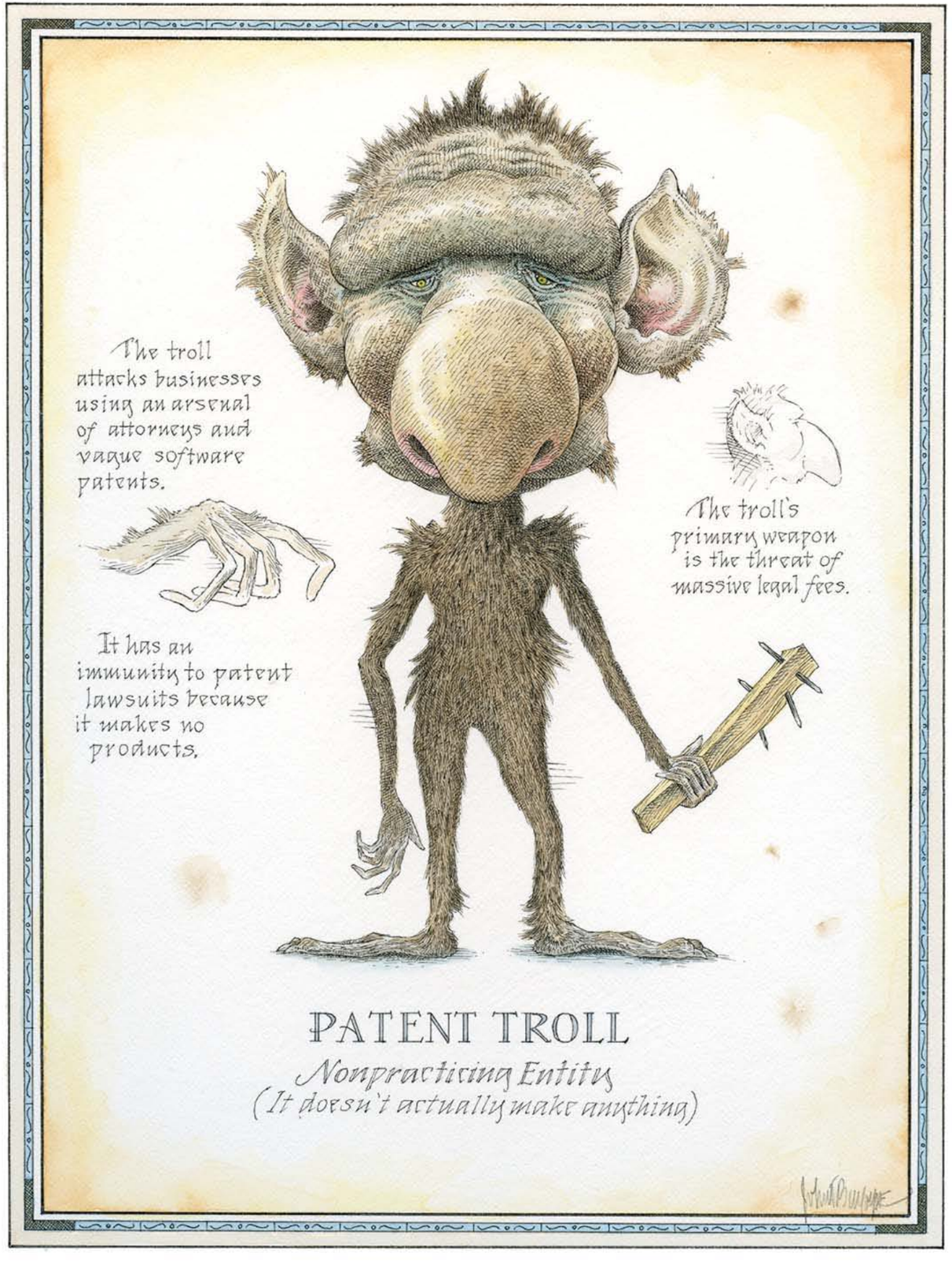

THE TROLL TOLL

Patent trolls drain businesses of billions of dollars a year. And if you have a website—any website—you are a potential target. Here's what you need to know if they come after you

BY KRIS FRIESWICK

ILLUSTRATIONS BY JOHN BURGOYNE

"I felt like I'd been mugged." Chris Friedland is fed up with the patent system. In the past two years, he has been hit with 18 patent-infringement claims. Friedland's Chico, California–based company isn't the type you would think would bump up against a lot of high-tech innovations. He runs a basic e-commerce site, Build.com, which sells home improvement and plumbing supplies. But in 2009, Friedland received a letter accusing Build.com of violating a patent for Web server technology. The claim struck Friedland as ridiculous. By his reading, the patent was so broad that it would affect anyone who had ever used the Internet. But when he consulted his lawyer, it became clear that this was no joke.

The letter came from a type of company known as a nonpracticing entity, which owns patents but never uses them to create anything. These companies make money solely by pursuing potential patent infringers and demanding license fees. This particular NPE (Friedland can't name names because of a nondisclosure agreement) had a compelling case, said Friedland's attorney. The infringement letter referenced several large companies that had already paid license fees for the patent. "We wrote a check and thought they'd go away," he says. "But then the trolls just rushed in."

Troll is a derogatory term for the most aggressive types of NPEs. Friedland isn't sure how word of the settlement leaked to Troll Town, but he says that after he paid the fee, he was inundated with infringement letters from trolls. The patents in question were amazingly broad: There was one for transferring data through a network, another for using images on a website, another for having a computer that connects to a database. "I mean, if you own the patent for connecting computers to a database, you should go after Facebook or Google, not some stupid

plumbing company, right?" says Friedland. Many of the letters were threatening. "They say, 'Send us a check for $10,000 or we'll sue you,'" he says. "It's a shakedown. They know they don't have a leg to stand on. But they know you'll pay for a license instead of going to court."

> "The best business to be in right now is being a patent troll, and that sucks. They've got nothing to lose."

In 2011, patent trolls cost U.S. companies more than $29 billion in legal fees and settlement costs, according to a study by the Boston University School of Law. The trolls target mostly small and medium-size businesses—companies with annual revenue of $10.8 million on average, according to the study. Nearly any company that uses basic technology or operates a website is a possible target. Trolls are litigation machines, the natural result of a patent system that has done a terrible job of evaluating and granting software patents—and a court system that hasn't done much better at examining them.

In some cases, trolls are forcing business owners to choose between paying employees and paying legal fees. Jim, the founder of a small Web services company who asked that his real name not be used, has been hit with six patent-infringement notices, including one involving a patent on sending notices via social media. He says the claims are bogus, but he can't afford to go to court or to pay the license fees the trolls are demanding. Instead, he says, "I may have to just drop the product line that they claim is infringing and lay people off." It's a decision that pains him, but Jim says the trolls have him over a barrel. "I want to fight," he says, "but I have 180 other employees to look after."

"The best business to be in right now is being a patent troll, and that sucks," says Eugene R. Quinn Jr., a patent attorney with Zies Widerman & Malek and founder of patent blog IPWatchdog. Unlike the companies they target, trolls can't be sued for patent infringement because they don't make anything. "They've got nothing to lose," says Quinn. "That's the problem."

Acacia Research and Intellectual Ventures, widely considered the two most successful patent trolls in the country, insist that their business model, far from harming innovation, actually helps inventors. "In order to have any value to their patents, many patent holders have to partner with a company like Acacia," says Paul Ryan, CEO of the company, which made $184.7 million in 2011 in license fees and settlements. "We think we're providing a valuable service." Acacia frequently partners with inventors and splits the license fees. Ryan estimates that 70 percent of Acacia's patents come from small companies or individual inventors. "Once they realize that a patent assertion is being made by someone who doesn't have the money to pursue it, a lot of large companies delay until the inventor runs out of money," says Ryan. Most NPEs are unlike Acacia, however, in that they do not share revenue with inventors. They simply buy the patents outright, often from failing and bankrupt companies.

SOFTWARE PATENTS, A TROLL'S BEST FRIEND

Patents on computer software are universally acknowledged to be the most vague, poorly written, and difficult patents to decipher. Software patents, by one estimate, account for just 12 percent of all patents. But they make up 74 percent of the most litigated patents, according to a 2011 study published by *The Georgetown Law Journal.* (The majority of the plaintiffs? Nonpracticing entities.)

Software patents have been around since the early '60s and kicked into overdrive in the late '90s. The U.S. Patent and Trademark Office didn't have much software expertise at the time, and it approved many overly broad patents. One such patent covers the "interactive Web." The patent, owned by a company called Eolas, was finally invalidated at a trial last year—but only after being successfully used for more than a decade to extract millions of dollars from many companies. In 2004, Eolas won a $565 million judgment against Microsoft, which later settled for an undisclosed amount.

Experts say patents like Eolas's should never have been granted, because, for starters, the technology already existed when the patent was filed in 1994. But because few companies had actively patented software before the late '90s, there was very little *prior art.* Prior art—published evidence that key concepts in a patent application existed before the application was filed—is grounds to deny or invalidate a patent. Because of the limited amount of prior art the patent examiners consulted (mostly other patents) and the time constraints they faced in approving or denying patent requests, thousands of patents were issued for software-based "inventions" that weren't new and were in wide use. These patents used such broad language that it was nearly impossible to determine their limits.

CONFUSION IN THE COURTS

Today, the patent office does a much better job of forcing software-patent applicants to be more specific, but that doesn't help with the vague patents that have been granted. When these murky software patents eventually wind up in court, judges often disagree about what the patents encompass. Conflicting rulings come down almost weekly. One recent case concerned a patent on the idea of forcing online users to watch an ad before showing copyrighted material on the Internet. The patent holder, Ultramercial, has sued many companies, including Hulu. "But the patent doesn't even tell you how to put the ad on the Internet," says Julie Samuels, staff attorney for the Electronic Frontier Foundation, a nonprofit that promotes freedom of information online and has campaigned to get bad software patents invalidated.

The Ultramercial patent was upheld by the U.S. Court of Appeals for the Federal Circuit. But the Supreme Court asked the appeals court to reopen the case in the light of recent Supreme Court rulings about the part of the patent law that bars anyone from patenting an abstract idea, a law of nature, or a natural phenomenon. The Supreme Court's recent rulings seem to signal that it would not uphold patents that take familiar, abstract concepts (like watching a TV ad) and simply add *on the Internet.*

Amazingly, software patent-infringement suits usually fail in court. According to the study in *The Georgetown Law Journal,* software-patent holders—including NPEs and actual companies—win just 13 percent of their court cases, compared with a 50 percent win rate for nonsoftware-patent holders. But most cases never get that far. In an estimated 90 percent of cases, the defendants settle before going to trial. In other words, the trolls' entire business model is built on the assumption that software patents are so mysterious and complicated—and legal battles so expensive and distracting—that no one will challenge them.

Partly because so many companies settle, it's tough to nail down the number of dubious patents out there. "There's no way to really know how many patents are improvidently granted," says Samuels. "What we do know is that the numbers of overbroad and vague patents asserted by trolls are growing every day. Litigation is expensive, and the system incentivizes you to pay the trolls to go away rather than prove that the patents are invalid. Until we see more defendants fight back, we'll never know."

THE HUNT FOR SOLUTIONS

Because of these issues, some business leaders, including venture capitalist Fred Wilson and investor Mark Cuban, have called for an end to software patents. People who defend software patents say they do protect genuine inventions and argue that efforts to weed out trolls will hurt innovation. "A number of people look at the problem and say, 'Abolish software patents,'" says Mark Lemley, a patent-law professor at Stanford University and a founding partner at intellectual-property law firm Durie Tangri. "But there are really useful inventions in software that we want to protect. There's a really hard line-drawing problem." He points to the software that enables a Toyota Prius hybrid engine to switch from gas to electric. "That controller—that's a piece of software," he says.

Besides, says Lemley, the countless companies that have software patents will fight hard to keep them. "Depending on how you count," he says, "there are between 500,000 and a

THE SHAKEDOWN

Patent trolls have become a drain on small and midsize businesses, which often lack the resources to fight back.

In 2011, patent trolls cost U.S. businesses more than

$29 billion

in legal bills and settlement costs.

The average company targeted by patent trolls has

$10.8 million

in annual revenue.

Threatened with the cost of going to court, most companies give in to the trolls' demands.

90%

of defendants in software-patent cases settle before going to trial.

WHO'S BEHIND THE TROLLS?

Here are some of the people running the show, according to public records.

NATHAN MYHRVOLD
Intellectual Ventures
The largest patent troll, Intellectual Ventures has acquired some **70,000** patents.

MARK SMALL
Lodsys
Lodsys bought a patent and went after many iPhone app developers in 2011.

PAUL RYAN
Acacia Research
Acacia partners and splits earnings with inventors. In 2011, it made **$184.7 million**.

CRAIG NORTH
Gooseberry Natural Resources
This shell sued AOL, Digg, and other online publishers.

MICHAEL DOYLE
Eolas
Eolas bled millions from businesses with its patent on the "interactive Web."

FROM LEFT: COURTESY COMPANY; SAM GANGWER/ZUMAPRESS; JOHN BOEHM

million software patents in force in the U.S. today. That's a lot of constituencies that wouldn't want to see them eliminated. I think such a change is politically infeasible."

But Congress has made some progress, most notably with the America Invents Act, a patent-reform law that passed in 2011. There are plenty of people who complain that the law, which goes fully into effect in March, doesn't go far enough. But it does reduce patent holders' ability to list multiple unrelated companies as co-defendants in a lawsuit—a popular tactic used by trolls. It also broadens protections for inventors who accidentally infringe on patents through simultaneous invention, and it clears the way for any interested party to contest patent applications by submitting prior art. In addition, the legislation creates a new administrative method, called a post-grant review, intended to help weed out bad patents without litigation. However, many of these provisions apply only to new patents.

> "These are just attorneys who have made the decision to ruin people's lives. It's capitalism at its purest and worst."

Some in Congress are still trying to fix the troll issue. Vermont Senator Patrick Leahy, who co-authored the America Invents Act, has been conducting hearings on the impact of NPEs on small business. And Congressmen Peter DeFazio of Oregon and Jason Chaffetz of Utah have proposed a bill, called the Saving High-Tech Innovators From Egregious Legal Disputes (or SHIELD) Act, that would force NPEs to pay defendants' legal costs if a judge determines that a patent lawsuit didn't have a reasonable chance of succeeding.

Some in the private sector are also working on solutions with the patent office. In August, Google launched a free prior-art search tool, which scours many sources, including other patents, academic research, the Web, and books. "I've never met anyone who thought that the patent system as it exists today is a net benefit for the software industry," says Google software engineer Jon Orwant, who manages the project. In September, Stack Exchange, a question-and-answer site co-founded by Joel Spolsky and Jeff Atwood, teamed with the patent office to launch Ask Patents. The site uses crowdsourcing to find prior art and assess the claims of new patents.

FIGHTING MAD
Chris Friedland of Build.com, which sells plumbing supplies, has been hit with 18 patent-infringement notices. Now, he's rallying other companies to stand up to trolls.

Meanwhile, several tech companies, including Google, Facebook, Intuit, and Rackspace, filed a 30-page amicus brief to the U.S. Court of Appeals in December, asking the court to reject patents on abstract ideas that involve a computer or the Internet. "Such bare-bones claims grant exclusive rights over the abstract idea itself, with no limit on *how* the idea is implemented," reads the document. "Granting patent protection for such claims would impair, not promote, innovation by conferring exclusive rights on those who have *not* meaningfully innovated, and thereby penalizing those that do later innovate by blocking or taxing their applications of the abstract idea."

ENTREPRENEURS FIGHT BACK

Unfortunately, none of these initiatives will make the kind of broad changes needed to curb the troll attacks against small and medium-size businesses. For now, the best recourse is to stand and fight.

Steve Vicinanza is one of those launching a counteroffensive. About a year ago, his company, BlueWave Computing, an Atlanta-based IT consulting firm, received an infringement claim from an NPE called Project Paperless. It owns a patent on scanning paper documents directly into an e-mail attachment. The patent was issued in the late 1990s and had gone through a series of owners before passing to Project Paperless in 2011. The troll demanded that BlueWave, which has more than 100 employees, pay a one-time license fee of $1,000 per employee. But BlueWave doesn't make office equipment—it just installs it. The claim struck Vicinanza as so crazy that he ignored it.

But then Project Paperless sued him—and named 100 of Vicinanza's clients as co-defendants. The troll claimed these customers were also infringing thanks to the printers and IT networks that BlueWave had set up for them. Vicinanza could either go to court or pay the license fee, which was now double—more than $200,000.

Though his attorney advised him to pay the fee, Vicinanza didn't like the idea. "I know a lot about this stuff," he says. "I pulled their patent. I said, 'This is crap!' I'm Italian, and we know how this stuff works. It's called extortion. When people try to extort money out of me, I fight back."

Vicinanza paid a Seattle firm $5,000 to conduct a prior-art search. When he had enough ammunition, Vicinanza warned the troll that he had evidence that invalidated the patent and was going to request a reexamination. Soon after, Project Paperless dropped the suit. All told, Vicinanza estimates he spent about $50,000 on the fight, but he considers that a victory. "People kept telling me that this would cost $1 million," he says. "I got off for a fraction of the fee I would have had to pay if I had settled. And if I had settled, I would've gotten agita when I wrote that check."

Drew Curtis, founder of Fark.com, a news aggregation site, is also encouraging other entrepreneurs to fight. Curtis's company was sued in 2011 by Gooseberry Natural Resources, an NPE with a patent on a Web form used to create and send out press releases online. Fark doesn't do anything like that, but trolls don't have to prove infringement in order to file a lawsuit. "These are just attorneys who have made the decision to ruin people's lives," says Curtis. "It's capitalism at its purest and worst."

Many other companies, including AOL, Yahoo, and Digg, also got hit with the suit. Curtis refused to pay up. "I was the only guy in the lawsuit that wasn't a conglomerate or venture-cap-backed company, guys who had war chests," says Curtis, who spoke about his experience at a TED Conference last year. "And I was the only guy that fought it." After Curtis made several discovery requests—asking Gooseberry to provide, for example, screenshots demonstrating Fark.com's violation of the patent—the troll offered to settle. Curtis refused to sign a nondisclosure agreement or pay a settlement fee. To his surprise, the troll backed down. (Curtis won't divulge how much it cost him to wage this war. He will say only that he got outstanding American Express points paying his legal fees with his credit card.)

Friedland, of Build.com, has also begun taking a stand. When he made it clear he was ready for a fight, the majority of the trolls backed down, he says. But a few sued. Friedland started calling other defendants, most of which were not direct competitors, and asking them to join with him and share resources. "I would tell them that we have mutual interest," says Friedland. "And that if we work together, we can get it resolved in the best way possible for all of us. As a group, we are stronger than as individuals." For one suit, Friedland managed to persuade all the co-defendants to fight, even though many initially wanted to settle. The case is still ongoing, and there are more battles ahead: Friedland is still involved in six other disputes and continues to get new infringement notices from other patent trolls. For him, the long-term answer is changing the patent law. (He would like to see the life of a software patent reduced from 20 years to two years and patent rights go only to the original inventor or company that commercializes the invention.) Until that happens, he encourages companies to reject the nondisclosure agreements that trolls routinely insist upon as a condition of settlement. Instead, he says, companies need to share their experiences with one another. "It's like being an abuse victim," he says. "If you don't talk, you perpetuate it."

Kris Frieswick wrote for the June 2012 issue about Defy Ventures, a program that teaches ex-cons to be entrepreneurs.

HOW TO GET RID OF A TROLL

Tips from entrepreneurs who have battled and won

1. Fight back
Most companies would rather pay a fee than go to court, and that's what trolls are counting on. Though they threaten companies with lawsuits, trolls win only a small fraction of cases. Chris Friedland of Build.com says that when he made it clear he was ready for a fight, many of the trolls that had targeted his company backed down.

2. Do a prior-art search
Patents are hard to overturn—it's much easier to fight the infringement than the patent itself. However, if you can find proof that a patent is invalid, you can sometimes frighten the troll away, says Steve Vicinanza of BlueWave Computing.

3. Get support
Find other companies that are being targeted by the patent troll and get them to join you in your fight, says Friedland. You can share information and resources.

4. Be annoying
Make the process as painful, annoying, and difficult as possible for the troll, says Drew Curtis of Fark.com. This is the tactic that trolls normally use on entrepreneurs, but it also works well in reverse.

PHOTOGRAPH BY ROBYN TWOMEY