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Could Morse Have Patented the Web?

Under today's loose standards, the telegraph inventor might own the Internet.

By L. GORDON CROVITZ – March 25, 2012, 6:17 p.m. ET



In 1853, the Supreme Court gave Samuel Morse some bad news. In *O'Reilly v. Morse*, the justices approved the inventor's patent for part of the telegraph that delivered the Morse code message "What Hath God Wrought?" but said he could not patent the idea of sending messages electronically across great distances. Ideas alone, the justices said, cannot be patented.

Morse's descendants should demand a rehearing. The standards for patents are so low that simply having an idea often justifies a patent. Morse wanted a patent to cover "electro-magnetism, however developed, for marking or printing intelligible characters, signs, letters, at any distance, being a new application of that power of which I claim to be the first inventor or discoverer."

This would have been a patent for all uses of the telegraph—and would also have included the Internet. The 19th-century justices refused to block progress through an overbroad patent: "For aught that we now know some future inventor, in the onward march of science may discover a mode of writing or printing at a distance by means of the electric or galvanic current, without using any part of the process or combination set forth in the plaintiff's specification."



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Mayo v. Prometheus, March 20: a 9-0 decision in favor of innovation

Under today's looser standards, Morse should own the Web. Companies now seek patents for the slimmest of ideas. Google has filed to patent the idea of "advertising based on environmental conditions." This would target advertising based on sensors in smart phones indicating the temperature and humidity so it could deliver relevant ads for air conditioners versus winter coats.

The patent explosion began in the mid-1990s, when the U.S. Court of Appeals for the Federal Circuit ended the requirement that patents specifically define inventions. Now, business processes and algorithms are routinely patented, making it hard to innovate with products like mobile devices without running the risk of violating numerous patents.

And so Google bought Motorola's smartphone business last year for \$12.5 billion largely to acquire its 17,000 patents. Trolls buy up patents and then sue companies or force them to pay licensing fees. Apple, Facebook, Google, Yahoo and Microsoft are suing one another over patents.

The system also fails individual inventors. In the book "Why Has America Stopped Inventing?" patent lawyer Darin Gibby calculated that 150 years ago, Americans invented twice as much on a per capita basis. The millions of dollars it costs now for an inventor to file and protect a patent stifle innovation.

Last week, a unanimous Supreme Court decided that patent abuses have gone far enough. In *Mayo Collaborative Services v. Prometheus Laboratories*, the court cited the 150-year-old case against Morse to invalidate a patent for medical tests based on correlations between drug dosages and treatments. The patent had been for a method to help doctors determine the right dose to give different patients, but the court said this was an innovation based on natural laws, so it can't be protected by patent.

Justice Stephen Breyer wrote that Einstein could not have patented his theory of relativity, "nor could Archimedes have secured a patent for his famous principle of flotation by claiming a process consisting of simply telling boat builders to rely to that principle."

The purpose of patents is to give incentives to inventors, but the justices said the exclusive right to something as basic as a diagnostic tool would "impede the flow of information that might permit, indeed spur, invention, for example by raising the price of using the patented ideas once created, requiring potential users to conduct costly and time-consuming searches of existing patents."

In high-tech, patents for "business processes" are so common that many Silicon Valley firms tell engineers and developers to ignore potential patents. There are patent databases to track chemicals and pharmaceuticals, but software is too broad to categorize.

In a paper called "Scaling the Patent System" to be published in the New York University Annual Survey of American Law, Christina Mulligan of Yale Law School and Timothy Lee of the Cato Institute quantify why it's now impossible for software developers to check patents. They estimate that there are 600,000 firms producing patent-eligible software and 40,000 software patents granted each year. They say this comes to "24 billion new patent-firm pairs each year that could produce accidental infringement." Even if a lawyer only needed 10 minutes to review each patent, it would take two million patent attorneys working full time to ensure compliance. There are 40,000 patent lawyers and agents in the U.S.

The justices who stopped Morse and the medical diagnostic company from getting patents struck a balance between encouraging innovation and keeping the flow of information open to support new technologies. But the Supreme Court has a long way to go to allow patents only for inventions well defined enough to be clearly understood and clearly limited in their purpose.

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