Talking Patents

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in

Doc Searls takes a closer look at the "space debris" of cyberspace.

To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries- **Article 1, Section 8, United States Constitution** (http://usgovinfo.about.com/newsissues/usgovinfo/blconst.htm#Article1)

The signers of the **Declaration of Independence** (http://www.nara.gov/exhall/charters/declaration/decmain.html) included at least two inventors. One was Thomas Jefferson, whose most influential invention was the Declaration itself. The other was Benjamin Franklin, whose list of "inventions" includes

- bifocals
- the lightning rod
- the flexible urinary catheter
- watertight bulkheads
- the odometer
- the book claw
- the University of Pennsylvania
- the Franklin stove

That stove, Mark Twain said, "would smoke your head off in four hours by the clock." So, as accessories to the stove, Franklin also invented both the first fire company and the first fire insurance company. And, since the stove clearly needed improvement, he also declined to patent the thing:

"Gov'r. Thomas was so pleas'd with the construction of this stove, as described in it, that he offered to give me a patent for the sole vending of them for a term of years; but I declin'd it from a principle which has ever weighed with me on such occasions, viz., *As we enjoy great advantages from the inventions of others, we should be glad of an opportunity to serve others by any invention of ours; and this we should do freely and generously*."

Jefferson had different misgivings. Although he held the office of first patent law administrator in the new republic, he applied that law, as one historian notes, "under very strict standards, and relatively few patents were issued." But there were certain standards that were hard to establish. Like the other founders, Jefferson leveraged the thinking of John Locke, who believed that government derived from the natural concerns over "life, liberty and ... property". That last item bothered Jefferson. He substituted "happiness" for "property" in the Declaration of Independence. And he later wrote that the "least exclusive" property was "the thinking power called an idea":

"That ideas should freely spread from one to another over the globe seems to have been peculiarly and benevolently designed by nature, when she made them, like fire,

expansible over all space, without lessening their density at any point, and like the air in which we breathe, move, and have our physical being, incapable of confinement or exclusive appropriation. *Inventions then cannot, in nature, be a subject of property."*

Two centuries after Jefferson left his patent office, we have this whole new world - the Net - made by our own thinking power, expressed in the idea we call *code*. In ***Code and other Laws of Cyberspace*** (http://www.code-is-law.org) , **Lawrence Lessig** (http://cyber.law.harvard.edu/lessig.html) points out "The Internet was built for research, not commerce. (Indeed, until 1991, the national Science Foundation forbade its use for commerce.) Its protocols were open and unsecured; it was not designed to hide."

So the Net was a marketplace for *ideas* before it became a marketplace for *things*. The best e-commerce pioneers leveraged the virtues of the first in service of the second, while adding further to the first. They gave us new and innovative ideas about both technology and commerce, ideas that spread like fire.

The exemplar, of course, is **Amazon.com** (http://www.amazon.com) . **Jamie Zawinski** (http://www.jwz.org) , the UNIX hacker on the original Netscape browser development team (and the guy who named the browser Mozilla), told me two years ago that Amazon was "the only e-commerce company that's doing it right". Quite a few people agree. I just checked with the **FAST** (http://www.alltheweb.com) search engine, and found 63,386 documents with "in association with Amazon.com". That means Amazon is sharing revenues with tens of thousands of other companies and individuals, through its associates program.

To look at all seven of Amazon's patents, go to **http://www.uspto.gov/patft/index.html** (http://www.uspto.gov/patft/index.html) and click on "Boolean." Then enter "amazon.com" in the "Term 1" search field, then select "Assignee Name" from the Field 1 popout menu, then select "All Years" from the "Select Years" popout menu. Unfortunately, it is not possible to link directly to those pages.

On February 22nd of this year, the U.S. Patent & Trademark Office (the PTO) assigned Amazon.com a patent for that program: 6,029,141: Internet-based customer referral system. First among the credited inventors was Amazon's founder, President and CEO, Jeff Bezos. The patent application was originally filed on June 27, 1997. It was not Amazon's first. Way back on May 30, 1995, Amazon applied for a patent on a "Secure method and system for communicating a list of credit card numbers over a non-secure network." That one, 5,715,399, was granted on February 3, 1998.

Today we know of seven Amazon patent applications, because **seven have been granted** (http://164.195.100.11/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetahtml%2Fsearch-bool.html&r=0&f=S&l=50&TERM1=Amazon.com&FIELD1=ASNM&co1=AND&TERM2=&FIELD2=&d=pall) . None of them, however, attracted attention until Amazon chose to protect the fifth patent in that series, a method and system for placing a purchase order via a communications network, which was issued on September 28, 1999.

Less than one month later, Amazon **sued** (http://abcnews.go.com/sections/business/DailyNews/amazon_bn991022.html) **Barnesandnoble.com** (http://www.bn.com) for infringing on that patent, which covers Amazon's **One-Click** (http://www.amazon.com/exec/obidos/subst/help/one-click-learn-more.html) ordering system. In January, they **won** (http://archives.seattletimes.com/cgi-bin/texis/web/vortex/display?storyID=3869453cf5&query=Amazon.com) a court injunction. Between those two events, the free software pioneer Richard Stallman **called for a boycott** (http://linuxtoday.com/stories/13652.html) of the company. In February, when the "customer referral system" patent came through, hairs stood up on backs of thousands of necks. Even though Amazon applied for the patent nearly three years earlier, the corpse of Barnes & Noble's own one-click program floated in the harbor, bearing witness to mines in the water that could be set off at their owners' discretion.

Now there was another mine. What would Amazon do with it?

That was the question Charlie Jackson asked. An authentic software inventor (SuperCard, SuperPaint, Flash), **Jackson wrote** (http://scriptingnews.userland.com/stories/storyReader$408), "I have a small e-commerce site, **volleyhut.com** (http://www.volleyhut.com/NonFlash.tpl), that sells volleyball equipment. I have an affiliate relationship with **volleycentral.com** (http://www.volleycentral.com). I will continue to maintain the affiliate program, despite your patent. The reason is that I know you will not try to actually stop me, because your patent will not hold up in court if I decide to fight it, which I would. So, now you have been notified that someone is violating your patent. What are you going to do about it?"

Tim O'Reilly (http://www.oreilly.com/oreilly/tim.html), whose publishing company sells thousands of books through Amazon.com, finally decided to act on the pressure he had been getting from Richard Stallman and others to challenge Jeff Bezos on the issue. On February 28, O'Reilly wrote an open letter to Bezos:

"We understand that you may feel a need to file such patents for defensive purposes, to keep unscrupulous squatters from keeping you from doing business on the web, but if you use these patents offensively, as you have done in obtaining an injunction against Barnes & Noble's use of one-click ordering, you are striking a blow against continued innovation in the medium that has proven so successful for you.

"Given that you've now also received a patent on your Affiliates program (patent number 6,029,141), as well as several other critical patents relating to e-commerce, we urgently request that you clarify your intentions with regard to software patents, and avoid any attempts to limit the further development of Internet commerce on the basis of the patents you have already been awarded."

This was followed by an **Ask Tim column** (http://www.oreilly.com/ask_tim/amazon_patent.html), in which he recapped his correspondence with Bezos and reported on the new **patent site** (http://www.oreillynet.com/patents) his company set up.

This got Jeff's attention, and he called Tim on March 1. By coincidence, Tim was having lunch with **Dave Winer** (http://davewiner.userland.com), the veteran software developer, diarist and provocateur who had signed on early with Stallman's boycott. Dave, whose **Scripting.com Weblog** (http://www.scripting.com) is a clearinghouse for developments on the story, even **published a picture** (http://scriptingnews.userland.com/pictures/viewer$413) of Tim on the phone with Jeff). On March 2, Tim published a long **report** (http://www.oreilly.com/ask_tim/bezos_0300.html) on that conversation and those that followed. The report is a remarkable account of two men with common interests and opposing views, working toward solving several problems at once. "Right now," Tim wrote, "the immediate actions that we agreed on were three:

1. For Amazon.com to think hard about what kind of assurances they could give to independent developers about their safety from patent lawsuits.

2. To continue our conversation about patents, openness, and software innovation.

3. For me to write up our conversation so far and share it with the public, even in its inconclusive state. After all, one of the rules of the Internet, as articulated so brilliantly in the **Cluetrain Manifesto** (http://www.cluetrain.com), is that a market is a conversation. We don't have an answer yet, but we're talking."

On March 9, Jeff Bezos went public with his side of the conversation. **"An open letter from Jeff Bezos on the subject of patents"** (http://www.amazon.com/patents) threads together several key statements:

"I now believe it's possible that the current rules governing business method and software patents could end up harming all of us - including Amazon.com and its many shareholders...

"Despite the call from many thoughtful folks for us to give up our patents unilaterally, I don't believe it would be right for us to do so. This is my belief even though the vast majority of our competitive advantage will continue to come not from patents, but

from raising the bar on things like service, price, and selection - and we will continue to raise that bar. We will also continue to be careful in how we use our patents. Unlike with trademark law, where you must continuously enforce your trademark or risk losing it, patent law allows you to enforce a patent on a case-by-case basis, only when there are important business reasons for doing so.

"I also strongly doubt whether our giving up our patents would really, in the end, provide much of a stepping stone to solving the bigger problem.

"But I do think we can help. As a company with some high-profile software patents, we're in a credible position to call for meaningful (perhaps even radical) patent reform. In fact, we may be uniquely positioned to do this.

"Much (much, much, much) remains to be worked out..."

He then proposes four changes in patent law that he believes would result in "fewer patents, of higher average quality, with shorter lifetimes. Fewer, better, shorter. A short name might be "ast patents". He also volunteers his influence:

"I've already contacted the offices of several Members of Congress from the committees with primary responsibility for patents to ask if they would be willing to meet with me on this issue. Since some of them have previously expressed an interest in similar issues, I have every expectation that at least some of them will want to talk about it. I've also invited Tim O'Reilly to attend any such meetings with me. Tim and I are also going to try to pull together some software industry leaders and other people with an interest in this issue and an ability to help."

Clearly coordinating with Jeff at this point, Tim published a **report** (http://www.oreilly.com/ask_tim/patent_reform_0300.html) on the "great outcome" of their conversations:

"He's read a lot of the commentary left on oreilly.com, as well as letters sent directly to Amazon. I can't imagine any other high-profile CEO who would be as forthcoming.

"While Jeff hasn't done what I originally asked for--to rescind his patent claims--he has most definitely engaged with the problems I was raising, thought seriously about them, and proposed an answer that works for him and his business.

"That being said, I don't want to let Jeff entirely off the hook..."

Tim goes on to express his persistent concerns about the very presence of patents in an environment that wasn't made for them. For support, he brings in Larry Lessig, who **calls** (http://www.thestandard.com/article/display/0,1151,4296,00.html) these patents "the space debris of cyberspace".

But they are more than that, as Jeff Bezos says in his letter: "*patent law allows you to enforce a patent on a case-by-case basis, only when there are important business reasons for doing so*." In other words, patents function less as claims on territory than as *mines in space*, each of which can be set off at its owner's discretion.

Mines are not benign. They are weapons of war. And as long as we perceive cyberspace as territory, business there will be conducted on the basis of this simple war metaphor: **markets are battlefields**. In his letter, we find Jeff Bezos climbing over the fence between that metaphor and one that makes far more sense out of cyberspace: **markets are conversations**. He concludes his letter with this paragraph:

"On an important meta-level, one thing to note is that this episode is a fascinating example of the new world, where companies can have conversations with their customers, and customers can have conversations with their companies. I've been saying for 4 years now that, online, the balance of power shifts away from the merchant and toward the customer. This is a good thing. If you haven't already, read *the cluetrain manifesto*. If you want the book, well...you can get it at several places online... "

This is where this whole thing gets personal. I am one of the four authors of the Manifesto (the others are Christopher Locke, Rick Levine and David Weinberger), and the one whose mission in life for the last decade has been to establish the

markets are conversations metaphor in the world. I began following Linux and the Open Source movement because I saw both as living proof of the concept. I joined *Linux Journal* for the same reason.

After spending over twenty years in marketing, public relations and advertising, most of it struggling against its military imperatives (all those "strategic campaigns" waged against markets demeaned as "targets" and "eyeballs" to "penetrate" and "capture"), I was ready to defect to the other side: to markets themselves. So I returned to write for a journal at the heart of the most conversational market in technology. And I co-wrote a book that stands four-square on the side of the conversations we call "markets", and against the great sum of pointy-haired practices we call "Business as Usual".

And there is no subject with less pointy hair than patents. I hate them, but we all have to start talking about them, because our world is being mined at an accelerating pace.

Amazon owns seven patents, all Internet-related. There are hundreds, perhaps thousands, more. Wayne Beavers, an intellectual property attorney with Waddey & Patterson, **points to examples** (http://www.ausinvent.com/art9.html) such as:

- U.S. Patent No. 5,740,549, for PointCast's screen saver, which Beavers says "is notable for both its breadth and clarity."
- U.S. Patent Nos. 5,191,573 and 5,675,734, which cover sales of audio or video recordings downloaded over the Net, for Sightsound.
- U.S. Patent No. 5,855,008, which covers CyberGold's concept of paying people to watch ads over the Net.
- U.S. Patent No. 5,715,314, which describes the "network sales system" better known as the "shopping cart".

"What's next, getting patents for cold calls?" asks *The Wall Street Journal.*

It's already done. Check out U.S. Patent No. **5,594,791** (http://164.195.100.11/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=/netahtml/srchnum.htm&r=1&f=G&l=50&s1='5,594,791'.WKU.&OS=PN/5,594,791&RS=PN/5,594,791): "Method and apparatus for providing result-oriented customer service", awarded to Inventions, Inc. of Norcross, GA. This patents "an automated customer service system which maintains and uses a customer sensitivity profile to contact the customer in a manner, at a time and date, and at a location which are preferred by the customer," which "maximizes the likelihood that the customer will be favorably responsive to the contact..." In other words, it's a way to preheat a cold call.

Walt Keller, President & CEO of **Graphon** (http://www.graphon.com), says most software patents are defensive in nature, simply because the patent office grants them willy-nilly. The logic goes like this: since a patent gives one company the right to exclude another company from the market for the same work - or to extract a high price for operating in that market - it is wise to patent your original work before your competitors do. This is why **Graphon patented** (http://www.graphon.com/News/pr-patent.html) "remoting Windows applications to UNIX and Linux".

But Keller doesn't plan to patent aggressively. Jay Walker does. Here's **what Wayne Beavers says** (http://www.ausinvent.com/art9.html) about Walker's patent strategy:

"Of equal interest is the company behind **Priceline.com** (http://www.priceline.com), a private entity known as Walker Digital Corporation. Walker Digital is something of a 'think tank' run by Jay Walker, the first named inventor in the Priceline patent. Walker Digital Corporation develops and patents innovative information based solutions for businesses. They currently own over 250 pending patent applications. The Priceline.com business was conceived and developed by Walker Digital Corporation, and then those assets were spun off into Priceline.com which was subsequently taken public.

"The Priceline patents are just the tip of the iceberg of what Walker Digital Corporation is developing. A recent search for their issued patents (keeping in mind

that most of their 250 patent applications have not yet issued) is attached. This report shows 21 issued patents which, from their titles alone, show the wide breadth of activity being engaged in by Walker Digital Corporation."

These patents cover **subscriptions** (http://patents.uspto.gov/cgi-bin/ifetch4?ENG+PATBIB-ALL+0+956151+0+7+80291+F+6+21+1+an%2fwalker+and+an%2fasset), **billing and collections** (http://patents.uspto.gov/cgi-bin/ifetch4?ENG+PATBIB-ALL+0+956151+0+7+104852+F+1+21+1+an%2fwalker+and+an%2fasset), **puzzle games** (http://patents.uspto.gov/cgi-bin/ifetch4?ENG+PATBIB-ALL+0+956151+0+7+75176+F+8+21+1+an%2fwalker+and+an%2fasset), **phone call queueing** (http://patents.uspto.gov/cgi-bin/ifetch4?ENG+PATBIB-ALL+0+956151+0+7+101078+F+4+21+1+an%2fwalker+and+an%2fasset), **prepaid calling cards** (http://patents.uspto.gov/cgi-bin/ifetch4?ENG+PATBIB-ALL+0+956151+0+6+131072+F+16+21+1+an%2fwalker+and+an%2fasset), **traveler's checks** (http://patents.uspto.gov/cgi-bin/ifetch4?ENG+PATBIB-ALL+0+956151+0+6+101799+F+17+21+1+an%2fwalker+and+an%2fasset) and **lotteries** (http://patents.uspto.gov/cgi-bin/ifetch4?ENG+PATBIB-ALL+0+956151+0+7+18702+F+13+21+1+an%2fwalker+and+an%2fasset), to name just a few. Priceline also filed a patent infringement suit against Microsoft, claiming that Microsoft's **Expedia** (http://www.expedia.com) subsidiary copied Priceline's name-your-own-price system for buying airline and hotel tickets over the Web.

Every patent we have mentioned up to this point was applied for *prior* to the floodgates opened by **State Street Bank & Trust Co. v. Signature Financial Group Inc.** (http://www.law.emory.edu/fedcircuit/july98/96-1327.wpd.html) On July 23, 1998, the Federal Circuit U.S. Court of Appeals ruled in that "The plain and unambiguous meaning of § 101 is that any invention falling within one of the four stated categories of statutory subject matter may be patented, provided it meets the other requirements for patentability..." Those four categories are stated in Title 35 of the United States Code:

"Whoever invents or discovers any new and useful **process**, **machine**, **manufacture**, or **composition of matter**, or any new and useful improvement thereof may obtain a patent therefore subject to the conditions and requirements of this title."

The **Jackson Patent Law Office** (http://www.lawofcjdj.com/newslett.htm) derives these conclusions:

"The patent at issue in *State Street* was directed toward financial software. The legal principles of *State Street*, however, are applicable to many other technologies. Under *State Street,* a properly written patent application may result in patent protection for a computer with software that produces any useful, concrete, and tangible result."

In November 1998, the PTO issued a statement estimating that over 300 "business method" patents would be filed in 1999. That same month, a petition was filed in the *State Street* case, asking the Supreme Court to say "whether the computer application of a mathematical algorithm to produce a useful result, without more, is sufficient to satisfy the patentable subject matter requirements of [the Patent Statute]." The Supreme Court denied that petition on January 11, 1999.

Kevin G. Rivette and David Kline, authors of *Rembrants in the Attic: Unlocking the Hidden Value of Patents*, report in the **January issue of *Upside*** (http://www.upside.com/texis/mvm/magazine?year=2000&month=01) that Internet-related patents jumped from 648 in 1997 to nearly 3,000 projected for 1999. But *State Street* isn't the whole story. The authors trace the accelerated growth in patents to a pair of developments. First was the creation of a specialized Court of Appeals of the Federal Circuit (CAFC) in 1982, which significantly enhanced the rights of patent holders. "Whereas prior to the CAFC, 75 percent of patent claims were denied, today about 72 percent are upheld, with substantially larger damage awards being levied against infringers than previously", they report. Second was "the birth and development of the venture capital industry and the entrepreneurial high-tech sector of Silicon Valley".

Rivette and Kline also believe credit should be given to patent protection for the little guy:

"For every case in which a corporate behemoth uses its patents to bludgeon small competitors, one can also find a case in which patents have been the only thing standing between a small startup and its destruction at the hands of a vastly richer and more powerful Fortune 500 competitor."

Jeff Bezos sees himself as one of those little guys. Barnes & Noble has played hardball with Amazon for years, and by real-world measures, it's a much bigger company. But Jeff was *Time* magazine's Man of the Year last year. He is also, by near-universal acclaim, the leading business figure in e-commerce, and he didn't earn it by filing patents and lawsuits.

He did it by going native in the new world of the Net. That world was endowed by its creators with three qualities that would please both Franklin and Jefferson:

1. Nobody owns it
2. Everybody can use it
3. Anybody can improve it

We can thank our founding hackers for all three. Jeff can also thank them for helping put Amazon in business.

Now we need to finish talking him over to the right side of the fence - the side where we're all talking this thing through.

Linux Journal columnist Bryan Pfaffenberger has written an excellent **discussion** (/article/5074) on the patents issue, as well. See also James Gleick's "Patently Absurd" **here** (http://www.around.com/patent.html).

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