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Sent: Sunday, September 26, 2010 1:58 PM

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Subject: software and algorithm patent guidance

I think it's a mistake to frame patent reform in terms of over- and undercompensation. Through this frame it's too easy to lose sight of the true goal: to promote the progress of science and the useful arts.

The patent system isn't accomplishing that. Big companies gather portfolios of patents to assert their right to exist within an industry. Big companies license their entire portfolios to one another at once, excluding any competitor too small to be worth a bulk license. What's traded is not the patents, but the right to do business: you must be a similar size to the existing players, or else they will wait until you're big enough to cost them business, and then either absorb or eliminate you.

I fear what's now beginning to happen is a ``shake-out" where the areas of semiexclusive right (``big companies only") defined by a patent portfolio become larger and blur into each other until eventually a rich patent portfolio is needed to give access to the field of ``computer software." Because patent enforcement is selective and strategic and because large companies often buy smaller ones, this disastrous outcome could be achieved quietly.

Already big companies' patent portfolios protect them from the threat of a brilliant small company with a great idea disrupting their industry. Already most small software companies start out assuming they can never succeed on their own: their idea of success is to be bought out, either absorbed or simply shut down, by one of the two or three dominant players in their industry. Patents are part of the pressure through which this business regime is achieved.

The patent system works, through portfolios, to limit and control exactly the kind of ``Progress in science and useful Arts" it was intended to promote!

The only small companies that can survive are patent trolls, which drain the technical field of cash that they feed into the legal profession and disruptive speculators.

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1677785

- * non-product companies win only 8% of their patent suits that go to trial
- * but about 90% of patent lawsuits are settled before trial

These two facts suggest the patent trolls' business model is based on the extremely high cost of patent litigation, which convinces their victims to settle cases even where they're likely to prevail. As long as the ransom demands are set right, money flows to the patent trolls, which they can re-invest in harassing others. Even if the lawsuits were legitimate, patents would still not be promoting the progress of science and the useful arts in this case, because the patent trolls produce nothing.

I understand you might object, ``but they've bought the patent from a company that produced it, so at the moment of purchase the non-product company was transforming an idea into cash. As they sue people over the next two decades, they're making back their investment."

However, companies that actually do produce things:

- as discussed earlier, tend to use portfolios rather than individual lawsuits, and tend to either sue competitors out of existence (if they're small), or trade portfolio access (if they're big).
- (2) don't take out patents on their best ideas, but rather on ideas critical to the business they practice. They're not seeking through patents compensation for difficult ideas but rather a way to disrupt their competitors. (amazon vs bn)

The US constitution makes the existence of a patent system optional, but its purpose if it does exist is specifically proscribed: ``To promote the Progress of Science and useful Arts." It is not, to protect market value. Not, to define tradeable assets and defend them from depreciation so they can be treated as capital. Do not make the mistake of thinking patent holders are stakeholders in decisions about how to reform the system: based on the constitutionally-proscribed purpose of the system, the stakeholder is scientific and useful arts fields overall. Perhaps, sometimes, exclusive right to an idea combined with full disclosure of it can promote progress. Perhaps, other times, a predictably simple environment free from frivolous lawsuits would help promote progress better. Perhaps noncompetitive means of eliminating one's smaller competitors, ``clearing out the undergrowth," means based almost entirely on business strategy not at all on science, perhaps these means retard the progress of science.

Patents should not be issued at all in industries where they are causing more harm to this proscribed goal than good, including but not limited to computer software. Discussing price misses the point---even a 0-cent non-discriminatory license for a patent on a software algorithm which requires the licensee to agree to some harmless-sounding ``terms," causes potentially insurmountable harm to many software projects with creative business models that look nothing like a factory making cotton gins or medicine. Many are not in a position to pay legal

fees to accurately determine whether they need a license, much less negotiate one and make payments, and ``terms" are probably designed precisely to disrupt the creative business model they want to use. Such projects are routinely harmed by FUD---the worry of their customers that lurking patents might surface and kill their product, wiping out the customer's investment in configuration and training, but without knowing exactly which patents might apply, so it is actually the system itself harming projects in this way, not individual patents. Engaging in the patent system is an encumberance on such industries, retarding their progress, not promoting it.

But a case study in how current patent holders are using their portfolios in the software industry is even more damning, and underscores why the existing patent holders should have, if anything, less input on the reform of the system governing them than non-holders in the same industry.

Why not think of non-holders as ``potential future patent holders," since after all the system's meant to promote progress, and ask ``what sort of rules would you like to govern patents you might some day register?" As a software developer myself, I and other non-holders will tell you almost universally, ``we want the registering of new patents to become impossible." That's my wish, within my industry which is software.