

## The US Patent System: Troll-Scares and Changes in US Patent Law

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This article discusses an overview of changes that have occurred to the US patent law over the past several years, briefly discusses the types of changes to the US patent system that are likely to occur next, and discusses the current “troll”-scare that is often mentioned in relations to patents, from the point of view of things to consider when considering whether to file a patent in the US.

When considering a patent strategy, the question may arise as to whether to file a patent in the US. One reason mitigating against investing in US patents, is the US dollar is currently strong, making the cost of filing and prosecuting a patent higher than usual. However, despite the strong US dollar and all the mayhem in our patent system, the US is a large market for most products (for at least some products it may also be the largest market in the world covered by one patent system) and in general US patent laws

are enforced in the courts fairly, without significant regard for the country of origin of any of the parties in the law suit. Consequently, if you are thinking of marketing your products in the US, it is likely worth considering getting patent on the inventions that are embodied by those products.

However, there is much worth considering before actually filing a patent in the US. Over the last decade, or so, US patent law has gone through some major changes, and changes in patent laws creates at least some uncertainty about the validity and enforceability of many US patents. In the US, we are in the midst of a “troll”-scare, which even the general public seems to have bought into, and the troll-scare is likely driving much of the change in US patent laws. Now, the term “troll” is a pejorative term that is used to refer to entities that do not sell a product, but that sue others for infringing on their patents. “Trolls” are also sometimes referred to as nonpracticing entities (NPEs) – note that the typical small/individual inventor,

universities, government laboratories, and other research laboratories fit the definition of NPEs, because they do not manufacture and/or market their inventions (small inventors lack the resources to manufacture their own products and manufacturing is not part of the mission of universities, research facilities, and government entities). The troll-scare is being used as an excuse for weakening patents in general, and as a consequence the future is likely to bring US patents that are weaker than currently (which is likely good for big business, but not for much else).

Specifically, the US legislator and US Supreme Court are not exactly patent friendly. Regarding the US legislature, in passing the American Invents Act, much of the rhetoric and public discussion was focused on “trolls.” Although there are many provisions in the American Invents Act that arguably do not specifically target “trolls,” the American Invents Act weakens the rights of US inventors by (1) switching over to a first to file

system rather than a first to invent system, (2) placing severe limitations on the ability of a patent owner to consolidate infringement suits into one case (which increases the cost of filing infringement suits and increases the likelihood of the infringed patent being invalidated when suing multiple companies for infringement), and (3) making the corporate owner of the patent the patent applicant rather than the inventor (and makes it easier for corporations to get patents without consent from the inventors). Additionally, there is a bill in the House of Representatives, [Innovation Act 2015](#), that also has elements motivated by the troll-scare. For example, this bill proposes to make it easier for the winner of the law suit to shift the attorney's fees to the loser, thereby raising the stakes for the patent owner; increases the pleading requirements, which makes it more difficult to bring an infringement law suit; and places limits on discovery, which makes it harder for the patent owner to discover information that may be necessary to prove infringement (however, limiting discovery could also at times make it harder for an infringer to prove invalidity of a patent).

Lately (that is over the past decade or so), the US

Supreme Court has made many decisions that have weakened patents, and in the vast majority of these recent cases the patent holder is essentially always on the losing side. As background, in the US, the Supreme Court does not necessarily hear every case that files an appeal to the Supreme Court. If the Supreme Court does not want to hear a patent case, the CAFC is the final say. Up until about 2006, the Supreme Court was essentially not hearing patent related cases, and in the absence of the Supreme Court decisions, the CAFC had built up a large body of case law, which gave a degree of certainty and predictability to patent law and patent litigation.

In the absence of Supreme Court Action, the CAFC had built up a body of law that (1) required that to prevent hindsight, to prove obviousness, one needed to prove (e.g., by citing references or other similar evidence), that one of ordinary skill had a motivation for making a combination of references, (2) held that isolated genes were considered patent eligible, and (3) held that, in general, software was considered patent eligible as long as the claimed invention had a real-world-tangible result (in this article, the term patent eligible means that the invention was the sort of

subject matter to which patents could be awarded, but that the application had to meet the other requirements for patentability – e.g., novelty, nonobviousness, a sufficient and enabling written description- to get a patent). Additionally, in general patent holders were, in general, entitled to injunctions against their alleged infringers.

However, in *eBay Inc. v. MercExchange, L.L.C.*, [547 U.S. 388](#) (2006) the Supreme Court made it harder for patent holders to receive injunctive relief. In *KSR International Co. V. Teleflex Inc. et al.* [550 U.S. 398](#) (2007) the Supreme Court basically said that it was O.K. to use a common sense rationale, without proof, to invalidate a patent claim as being obvious. Although I think that requiring proof of the rationale is a clearly better rule (since many things seems obvious and common sense in hindsight and requiring proof of the motivation protects against that sort of hindsight analysis), the Supreme Court's KSR decision was likely more consistent with its earlier decision, *Graham v. John Deere Co.*, [383 U.S. 1](#) (1966), but the KSR decision throws out decades of experience with the issue of avoiding hindsight, that was not available in 1966. The real problem, however, with the KSR decision is that it does not give clear guidance as to what is patentable and

where is the dividing line between an impermissible hindsight reason for combining old parts to arrive at a claimed invention and an acceptable “common sense” rationale for making a combination of parts to arrive at a claimed invention. Even the CAFC has handed down relatively few rulings in which a patent was determined to be unobvious and therefore patentable since the KSR decision. The longer this sort of uncertainty remains in the US system (especially with a Supreme Court that appears to be anti-patent), the more likely there will be more inventors that are suddenly unhappily surprised by a CAFC decision or another Supreme Court decision ruling that their class of patents are unpatentable.

Regarding the patentability of genes, in *Association for Molecular Pathology v. Myriad Genetics* No. 12–398, Decided June 13, 2013, the Supreme Court said that isolated genes were not patent eligible, but cDNA is patent eligible, thereby also weakening the patents. As an aside, it is noted that this decision may not have been fully consistent with prior case law related to isolating chemical compounds, which introduces further uncertainties into US patent law.

Regarding software, in *In re Bilski*, 545 F.3d 943,

88 U.S.P.Q.2d 1385 (Fed. Cir. 2008), apparently in fear of having the Supreme Court overturn its earlier rulings regarding the patentability of software, the CAFC stated that the *Bilski* patent application was patent ineligible, because there was an insufficient machine tie-in, in the claims, under the Supreme Court’s machine or transformation test. The Supreme Court went one step further by reiterating that the machine-tie-in test was only a “clue” to patentability, but was not the ultimate test. *Bilski v. Kappos* [561 U.S. 593](#) (2010) further states that *Diamond v. Diehr*, 450 U. S. 175, *Parker v. Flook*, 437 [U.S. 584](#), and *Gottschalk v. Benson*, [409 U. S. 63](#), are the guide posts to what is and is not patent eligible. Although in *Bilski v. Kappos* there is a lengthy discussion as to what each of these cases stands for and although the Supreme Court references these cases in later decisions, the details of that discussion are not worth going into here. For several years afterwards, the CAFC, US Patent and Trademark Office, and US patent practitioners apparently all misunderstood what the Supreme Court actually said. Additionally, *Bilski v. Kappos* further warns against “interpreting patent statutes in ways that make patent eligibility ‘depend simply on the draftsman’s art’ without

reference to the ‘principles underlying the prohibition against patents for [natural laws],’ ” which apparently we all were supposed to pay closer attention to.

In *Mayo Collaborative Services, dba Mayo Medical Laboratories, et al. v. Prometheus Laboratories, Inc.* CAFC, No. 10–1150, Decided March 20, 2012, although ruling on a medical procedure, the Supreme Court stated essentially that conventional steps were not enough to raise an abstract idea into patent eligible subject matter. Since, a computer program in a vacuum is considered by the Supreme Court as an abstract idea, it is not a large logical step to conclude that, under *Mayo v. Prometheus*, conventional hardware in-and-of-itself should not raise a computer program to the level patent eligible subject matter. However, the patent community, including the CAFC and US Patent and Trademark Office, did not in general apply *Mayo v. Prometheus* to computer software related patents in a manner that had any very significant change in outcomes of patent eligibility of software. Finally, in *Alice Corporation Pty. Ltd. v. Cls Bank International et al.* No. 13–298, Decided June 19, 2014, the Supreme Court ruled that the conventional hardware

of *Alice* was not sufficient to raise Alice's claims to the level of patent eligibility. *Alice* reiterates that patent eligibility of the claimed subject matter should not depend on claim draftsmanship. In holding the claims were not patentable, the Supreme Court stated,

The method claims do not, for example, purport to improve the functioning of the computer itself. ... Nor do they effect an improvement in any other technology or technical field.

The decision also explained that in *Diehr*, 450 U. S. 175, the computer-implemented process for curing rubber was patent eligible, but not because it involved a computer. The claim employed a "well-known" mathematical equation, but it used that equation in a process designed to solve a technological problem in "conventional industry practice." *Id.*, at 177, 178. The invention in *Diehr* used a "thermocouple" to record constant temperature measurements inside the rubber mold—something "the industry ha[d] not been able to obtain.*Id.*, at 178, and n. 3." The temperature measurements were then fed into a computer, which repeatedly recalculated the remaining cure time by using the mathematical equation.

Thus, *Alice* states that some factors that may help raise the patent eligibility of software may include (1) an unconventional combination of pieces of hardware – e.g., *Diehr*'s thermocouple in combination with the other claimed elements made the claims patent eligible, (2) an improvement in the functioning of the computer, or (3) some other improvement in technology. As an aside, regarding the unconventional hardware of *Diehr*, it is not as if *Diehr* invented the thermocouple and it is hard to believe that *Diehr* was the first to use thermocouples in the rubber making processes. However, it is not clear from the *Alice* decision whether any of these factors are good enough by themselves to establish patent eligibility. It is also not entirely clear what are the parameters of an improvement in the functioning of the computer or of some other improvement in technology that are enough to raise that computer software to patent eligible subject matter. What is clear is that software is not patent eligible if the software is for a business method running on conventional hardware, where the software does not include an improvement in the manner in which the computer functions, or a technological improvement in some technology. Also, from a

purely logical point of view, if the hardware recited in the claim is patentable without the software, the software should not detract from the patent eligibility of the claim.

Since *Alice*, Federal Circuit Courts have held several patents claiming computer implemented methods running on conventional hardware as invalid. In contrast, the US Patent and Trademark Office has issued new guidelines, based on *Alice* and seems to be happy to issue patents that make a contribution to an area of technology, despite being software running on a conventional computer. However, it is not clear to me whether the CAFC (or Supreme Court) would be willing to uphold many of these patents, and ultimately the US Patent and Trademark Office is bound by the decisions of the CAFC (and the Supreme Court).

In summary, the US remains a large market for most products, and although patent laws are usually enforced in a fair manner, and despite the problems with the US patent system, it may still be better than many other patent systems and have less uncertainties. However, the US legislature and Supreme Court are/have been making major changes to US patent law that often weaken patents, and additionally the high

degree of change in US patent law in general creates uncertainty regarding what the law actually is, further complicating enforcing patents. Additionally, there are significant uncertainties as to the degree to which software is patentable in the US. Unfortunately, each time the Supreme Court weakens

patents, some US patent applicants and patent holders may find that their patents and applications that yesterday appeared to be valid, now appear to be invalid patents. Also, unfortunately the situation for patent holders and patent applicants is likely to get worse, with patents being further weakened than they are

currently, before it gets better (unless the American public wakes up and realizes that the changes in law made in the name of the troll-scare actually adversely affect them – the average Joe applying for a patent that does not have the money to be a practicing entity).

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