



## US Inventor Position on 35 USC Section 101

### **Justification**

Title 35 USC is the governing law on patents. It defines the requirements of obtaining a patent, among other things. Within 35 USC, Section 101 is effectively the door into the patent system. Without any exceptions, 101 defines what is considered patentable subject matter:

*“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 therefor, subject to the conditions and requirements of this title.”*

As is stated, just making it through 101 does not mean that the invention is patented. It must be examined under “*the conditions and requirements*” of 35 USC. These “*conditions and requirements*” are primarily Section 102 whether the invention is anticipated, Section 103 whether the invention is obvious, and Section 112 whether the invention is enabled.

Supreme Court and Federal Circuit decisions have fundamentally changed the meaning of Section 101 by creating three exceptions to patentable subject matter: abstract ideas, natural phenomena, and laws of nature. These exceptions have no basis in statutory law, nor were they the intent of Congress in enacting Section 101. They are purely a creation of the courts. In fact, Section 101 was written into the Patent Act of 1952 in an effort to limit similar exceptions created in the preceding years by the courts, and it was never intended to be a standard of patentability<sup>1</sup>.

Several court decisions defining the exceptions<sup>2</sup> have thrown the meaning of Section 101 into chaos by failing to define what is or is not an abstract idea, and conflating analysis intended for 102, 103 and 112 into Section 101’s analysis. Today what is patentable is completely in the eyes of the beholder and often different branches of government come to different conclusions.<sup>3</sup>

Some examination groups in United States Patent and Trademark Office (USPTO), particularly those in technical areas of software, reject patent applications at rates above 90% under the abstract idea.<sup>4</sup> Lower courts invalidate 54%<sup>5</sup> of patents challenged as abstract ideas.<sup>6</sup> Many of these patents are invalidated in preliminary motions without defining the meaning of the patents and without any evidence or testimony.

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<sup>1</sup> See

<http://www.bilskiblog.com/blog/2016/12/exploring-the-legal-contours-of-patent-subject-matter-eligibility.html>

<sup>2</sup> See *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, *Bilski v. Kappos* and *Mayo v. Prometheus*.

<sup>3</sup> See [https://en.wikipedia.org/wiki/Versata\\_Development\\_Group,\\_Inc.\\_v.\\_SAP\\_America,\\_Inc.](https://en.wikipedia.org/wiki/Versata_Development_Group,_Inc._v._SAP_America,_Inc.)

<sup>4</sup> See <http://www.bilskiblog.com/blog/2016/10/alices-torm-update-turbulence-and-troubles-.html>

<sup>5</sup> See <http://www.bilskiblog.com/blog/2016/12/alice-brings-a-mix-of-gifts-for-2016-holidays.html> In 2016 there were

<sup>6</sup> See <http://www.ipwatchdog.com/2014/09/25/broken-patent-eligibility-test-of-alice-and-mayo/id=51370/>

Trial courts simply look at the patent and make arbitrary decisions on whether or not it is an abstract idea.

The Federal Circuit has upheld the vast majority of lower court invalidations, often without comment<sup>7</sup> therefore providing no further guidance on what is or is not an abstract idea. The Supreme Court has refused to take multiple cases that could provide concrete guidance.

Many patents invalidated as abstract ideas would likely have been invalidated under sections 102, 103 or 112 had the patents been evaluated in accordance with law,<sup>8,9</sup> which means that many invalidations under the abstract idea are unnecessary and confuse patent law. Unfortunately, there are a significant number of patents that are patentable under the statutory analysis of under sections 102, 103 or 112, yet are nevertheless invalidated as abstract ideas under 101.

In summary, there is no longer due process of law regarding the invalidation of a property right, and there is no longer a presumption that a patent is a valid property right as is defined in black letter law.<sup>10 11 12</sup> The abstract idea has expanded the net of unpatentable subject matter far beyond the scope of the law and far beyond Congress's intent when writing the law. Statutory law is in direct conflict with case law and this is creating substantial commercial uncertainty which has destabilized patent rights.

Yet commercial certainty is vital to American new job creation. For inventors and startups, those who create the majority of new American jobs, commercial certainty is an outright requirement to commercialize new technology, thus creating new jobs. Commercial uncertainty created by the abstract idea denies justice to inventors, startups or their investors by denying capital necessary to access the courts. If a patent is too risky to be defended, as is the case today, it is not a property right and it is incapable of attracting investment. With no investment, inventors cannot fund companies that commercialize our next generation of technology or defend their private property from theft. This takes away incentive to invent and many small inventors have stopped inventing and stopped filing patents, at least in the United States.

While commercial certainty of U.S. patents has been nearly eliminated, commercial certainty of Chinese patents has become stronger.<sup>13</sup> China now leads the world in patent filings<sup>14</sup> and venture capital investment has dramatically shifted to China.<sup>15</sup> The U.S. is losing its greatest economic engine. Soon we will not only be purchasing goods made in China, but they will be invented there as well.

Patent driven innovations cure deadly diseases, solve world energy problems, defend freedom, entertain us, and improve things we already use. They also fuel most of our job creation and generate much of our national wealth. The damaging effects of the Supreme Court's abstract idea jurisprudence to these economic and social benefits are extraordinary. Today the validity of all patent rights are in question, and

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<sup>7</sup> Under Rule 36. See <http://www.ipwatchdog.com/2017/01/12/rule-36-abuse-federal-circuit/id=76971/>

<sup>8</sup> See

<http://www.ipwatchdog.com/2014/12/11/alice-in-blunderland-the-supreme-courts-conflation-of-abstractness-and-obviousness/id=52563/>

<sup>9</sup> See

<http://www.ipwatchdog.com/2014/03/31/missed-opportunities-for-alice-software-at-the-supreme-court/id=48845/>

<sup>10</sup> See 35 USC 261

<sup>11</sup> See 35 USC 282

<sup>12</sup> See *ULTRAMERICAL, INC. v. HULU, LLC* concurring opinion by Judge Mayer

<sup>13</sup> See <http://www.ipwatchdog.com/2016/12/20/chinese-patent-software-business-method/id=75978/>

<sup>14</sup> See <https://www.hg.org/article.asp?id=32165>

<sup>15</sup> See <http://watchdog.org/283886/venture-capital-chases-patents-friendlier-climes/>

the courts are not willing to correct or explain their own errant case law. Congress must act.

US Inventor proposes legislative changes to 35 USC Section 101 to restrict the courts ability to invalidate patents as abstract ideas, thus focusing analysis to Sections 102, 103, 112 and other existing sections of 35 USC. These changes would bring back stability and commercial certainty to patent rights thus helping to capitalize the startups and thereby create new American jobs.

**Section 101 requires the following changes:**

§ 101. Entitlement to patent; eligible subject matter.

(a) ELIGIBLE SUBJECT MATTER.—Whoever invents or discovers ~~and thereafter~~ claims as an invention any ~~new and~~ useful process, machine, manufacture, composition of matter, or any ~~new and~~ useful improvement thereof, shall be ~~entitled to~~ ~~may obtain~~ a patent therefor, subject to the conditions and requirements of this title.

(b) EXCEPTION TO SUBJECT MATTER ELIGIBILITY—A claim may be denied eligibility under this section 101, if the claimed subject matter, construed as for an inquiry under section 102, is no more than a law of nature, natural phenomenon, or abstract idea itself, but shall be eligible if the claim recites any practical use or application of such phenomenon or abstract idea.

1. A claim shall be eligible as an application of an abstract idea if it recites at least one limitation that necessarily invokes a machine, manufacture, or composition of matter.

2. A claim shall be eligible as an application of a law nature or natural phenomenon if it recites at least one limitation that necessarily invokes human intervention or agency.

3. Whether the claimed invention or any limitation thereof is itself novel, conventional, routine, well-understood, or satisfies any other requirement or condition of patentability under this Title, shall be of no relevance in determining whether a claim falls within eligible subject matter.

**Section 271(j) requires the following changes:**

Add a new § 271(j) [this needs further tuning to ensure that it does not sweep in research tool inventions, and to confine it to *de minimis*, philosophical inquiry—enough to satisfy the Supreme Court, and no more]

**§ 271(j) Research and other experimental uses of claimed inventions.—**  
Notwithstanding subsections (a) and (g), it shall not be an act of infringement to make or use a claimed invention for experimental purposes to discern or discover:

(1) the validity or scope of protection of a patent for the claimed invention;

(2) basic scientific properties of the invention.

## RATIONALE

The three exceptions to Section 101, “laws of nature”, “natural phenomena”, and “abstract ideas”, are substantially entrenched in judicial case law and damaging the ability of small entities to defend their patent rights. The Court has declined multiple times to define the contours of these exceptions leaving inventors with no way to project if a court will uphold a patent right or invalidate it. These judicial exceptions have created a lawless environment where the validity of a property right is wholly determined by the person deciding the case. Exceptions to Section 101 are substantially devaluing patent rights thus creating commercial uncertainty.

US Inventor is asking that law be changed to ensure that the judicially created exceptions have a correctly defined scope that ensures commercial certainty of patent rights.

US Inventor changes to 35 USC Section 101 provide the following:

1. Changes bound the “abstract idea” exception such that inventions with some element outside the human mind (e.g., a computer, a pixel displayed on a screen, a physical signal encoding data, computation in a human-made machine, etc.) cannot be considered an “abstract idea”.
2. Changes bound the “law of nature” and “natural phenomenon” exceptions, such that inventions including some element of human agency (a human-made starting compound (e.g., 6-thioguanine), a human-made process (e.g., amplifying DNA) or modification of a process (influencing growth of an organism to achieve a useful human-made result), or a human-made end result (e.g., taxol or isolated DNA) cannot be considered a “law of nature” or a “natural phenomenon”.
3. Courts must treat claims with precision for purposes of § 101. If the claims are a machine, manufacture, composition of matter or a method, evaluation of patentability moves to Section 102, 103, 112 and other sections of 35 USC.
4. A “research or experimental use” exception is codified to assure patents are not “inhibiting further research.” However, this exception is narrow, covering only *de minimis*, philosophical inquiry—it should not impair enforceability of patents on research tools, nor grant rights to do commercially-directed product research that allows competitors to jump start design-around products.

## Goals—

5. Replaces current vague § 101 jurisprudence—avoid terms like “abstract idea,” “application,” “law,” “principle,” “phenomenon,” “preempt,” “inventive concept,” “directed to,” “as a whole,” and the like, that the courts have either declined to define, or have defined in an unhelpful manner—and replace them with concrete, testable language.
6. It’s important to avoid words like “application” or “preempt” (or, if they are used, define them precisely) because of a principle of statutory construction from *United States v Texas*, 507 U.S. 529 (1993):

Just as longstanding is the principle that “[s]tatutes which invade the common law . . . are to be read with a presumption favoring the retention of long-established and familiar principles, except when a statutory purpose to the contrary is evident.” *Isbrandtsen Co. v. Johnson*, 343 U.S. 779, 783 (1952); *Astoria Federal Savings & Loan Assn. v. Solimino*, 501 U. S. 104, 108 (1991). In such cases, Congress does not write upon a clean slate. *Astoria, supra*, at 108. In order to abrogate a common-law principle, the statute must “speak directly” to the question addressed by the common law. *Mobil Oil Corp. v. Higginbotham*, *supra*, at 625; [Milwaukee v. Illinois](#), 451 U. S. 304, 315 (1981).

The terms that many believe would be helpful—“application” vs. abstract idea, “as a whole,” etc. have been construed in *Mayo*, *Myriad*, and *Alice* in unhelpful ways. Using these terms will simply bake the unhelpful Supreme Court standards into statute, and thus this proposal avoids those words.

Much as replacing the word “invention” with the word “obviousness” gave the courts a new starting point in § 103, this proposal deliberately avoids terms that have been construed in unhelpful ways. Instead, it uses concrete, simple concepts that will be difficult for courts to misinterpret.

7. The language “construed as for an inquiry under section 102” serves two purposes:
  - (a) It requires courts to give a formal claim construction. This undoes the practice of “claim dismemberment” and judicial recharacterization of “the invention” of *Mayo* and *Alice*, and puts attention back on *the claim*, considered with the precision expected of a validity or infringement analysis. It ends the practice of summary Rule 12(b) dismissal.
  - (b) It preserves a useful distinction between “broadest reasonable interpretation” and *Markman/Phillips* “ordinary meaning” claim interpretation—while a claim is still in active prosecution in the Patent Office, examiners will call out poorly-drafted language, and give applicants an opportunity to clarify and fix it. The difference between “broadest reasonable interpretation” and *Markman/Phillips* would be—and should be—outcome dispositive for *Gottschalk v. Benson* claim 13, several claims of *Bankcorp*, and *Alice*.
8. The most problematic terms, like “abstract idea,” “law of nature,” and “natural phenomenon” and “practical application” should, as a practical matter, never decide a case, because the exceptions and savings language essentially swallows them. In “test showings” outside the committee, including the concept of “application” but with definition was much less jarring than an earlier draft that had jumped straight to the “human mind” and “human agency” exceptions without the

“application” language as an intermediate “logical transition.”

9. We want to give the Supreme Court (a) a graceful way to back down, and (b) a block to reformulating the *Mayo/Myriad/Alice* line on Constitutional grounds. For that reason, the last paragraph is intentionally a close paraphrase of the last sentence from this paragraph from *Diamond v. Diehr*, 450 U.S. 175 (1981):

In determining the eligibility of respondents' claimed process for patent protection under § 101, their claims must be considered as a whole. It is inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the analysis. This is particularly true in a process claim because a new combination of steps in a process may be patentable even though all the constituents of the combination were well known and in common use before the combination was made. The “novelty” of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.

### **The categories**

10. The categories serve an important purpose, and should not be removed. Certain fields of human activity are not within the patent system:
  - (a) inventions in the fine arts and similar fields—Beethoven’s 5th Symphony, though novel, non-obvious, and meeting all requirements of § 112, would be unpatentable because it falls outside the categories.
11. The words “or improvement thereof” should be emphasized and revitalized. These words do two important things:
  - (a) There are eight categories, not only four.
  - (b) The nature of the improvement is not disqualifying, if the improvement improves an eligible underlying technology. Thus, even if an *improvement* taken alone might be ineligible, if it is an “improvement thereof” to eligible subject matter, a claim is eligible.
12. Attempting to abrogate § 101 entirely, or removing the categories, will require the Court to reinsert some analogous principle to exclude subject matter such as the fine arts, and likely bring the three judicial exceptions in as well. Abrogation simply won’t accomplish a good result.

### **Abstract idea**

13. The following remain ineligible “abstract ideas” –
  - (a) a naked algorithm of pure mathematics that produces a “mere number” as output, or a method capable of performance entirely in the human mind (thus, the claims in *Parker v. Flook*, *Bilski*, and several claims of *Bancorp* unpatentable).

14. This language does not directly address signals (*In re Nuijten*). Do we want to propose something that relies on “encoding information” in order to deal with signals, programs transmitted over the internet, DNA and RNA sequences, and similar information-coding inventions, or is that a bridge too far?

#### **Laws of nature, natural phenomena vs. human agency, and the like**

15. The following should be ineligible “laws of nature” or “natural phenomena” –
- (a) discovering how signals propagate through heart to regulate heartbeat (but a method of analyzing heart signals to evaluate a disease state would be eligible, leaving in place *Corazonix*)
  - (b) discovering that such-and-such an enzyme has such-and-such a function, but a purified version useable in medical treatment, or a method for administering it for medical treatment, or a method for determining a correct dosage by measuring blood levels of compounds, are patent-eligible.
16. The following are patent eligible:
- (a) any process that starts with a manmade compound (thus overruling *Mayo*)
  - (b) a process starts with a manmade configuration or arrangement of natural components, so that nature takes over from that manmade configuration to produce a desirable outcome
  - (c) a process uses a manmade technique or step (such as measuring blood levels of chemicals (thus overruling *Mayo*) or amplifying DNA (thus overruling *Ariosa*))
  - (d) a process that is controlled by humans (methods of medical treatment that involve changing the course of a natural process, or selectively favoring one of two pathways, etc.)
  - (e) the outcome of the process is manmade
  - (f) isolated DNA (thus overruling *Myriad*)
  - (g) taxol isolated from yew trees
17. The “human agency” test should be bounded so that it only applies to the claimed subject matter, not the act of discovery or invention. All inventions and discoveries are the work of an inventor or discoverer, and thus involve “human agency,” but that does not *per se* result in patentable subject matter (e.g., a discovery of pure natural science). We need to be mindful that the “human agency” test not apply to more than we intend.
18. “Human agency” is a new term, as “first draft” language that has not been worked over or wordsmithed. We are not certain that “agency” is the best or only word, but it’s the best we found in a Thesaurus. Synonyms for “agency”



- (a) agency 1 capacity, condition, or state of acting or exerting power : OPERATION
- (b) is a direct or indirect result of human [agency, process, material, substance, or composition of matter]
- (c) is a direct or indirect result of any human action or agency, including use of any manmade process, machine, manufacture, composition of matter, or organization, or any human intervention or manipulation.
- (d) intervention
- (e) instrumentality
- (f) manipulation
- (g) interaction
- (h) effect
- (i) exertion
- (j) influence
- (k) cause

#### **Interaction with other statutory sections**

19. The first half of § 101(b) is about how the exceptions do operate, and the latter half is about how they don't. Analogy—§ 103, which says that “obviousness” is the standard, and “how the invention was made” is not. When a statute is directed at overruling the Supreme Court, the statute must say both what the new law is, and be clear in stating what part of the old law is abrogated.
20. There may be value in cataloging all of the other statutory limits on patentability in § 101, in the legislative history, simply as a reminder--perhaps, had this catalog been directly visible to the Supreme Court, the concerns expressed in Mayo and Alice would have been properly remitted to consideration under § 103.