



# Extra Legal

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## Unpatentably Preemptive?

### A Case Against the Use of Preemption as a Guidepost for Determining Patent Eligibility

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The terms “process, machine, manufacture, and composition of matter” in Section 101 of the U.S. Patent Act<sup>[2]</sup> provide an expansive scope for patentable subject matter. To rein in this vast scope, the United States Supreme Court decreed that “laws of nature, natural phenomenon, and abstract ideas” are outside the ambit of patentable inventions.<sup>[3]</sup> Thus far, the Supreme Court has failed to provide any clear rationale for such *per se* exclusion,<sup>[4]</sup> except for frequently raising preemption concerns in its analysis of subject matter exclusion,<sup>[5]</sup> thus frustrating the application of the patentable subject matter doctrine to emerging technologies, such as genetics, medical diagnostics, computer software<sup>[6]</sup>, and business methods. Preemption in the patent context implies that claims that forestall competitive development—i.e., claims that can have an overly broad impact on downstream innovation—are not eligible for patent protection.<sup>[7]</sup> The concern was first raised in

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the 1972 case of *Gottschalk v. Benson*.<sup>[8]</sup> Since its inception in the *Gottschalk* opinion, preemption has been mentioned in every Supreme Court opinion focusing on § 101,<sup>[9]</sup> including the Court's two most recent opinions on the topic—*Bilski v. Kappos*<sup>[10]</sup> and *Mayo v. Prometheus*.<sup>[11]</sup> In *Bilski*, the Court pointed out that to allow "petitioners to patent risk hedging would pre-empt use of this approach in all fields."<sup>[12]</sup> And in *Prometheus*, the Court at the outset found the claims at issue failed the "inventive concept" test;<sup>[13]</sup> yet, it went on to invoke preemption by stating that "upholding the patents would risk disproportionately tying up the use of the underlying natural laws, inhibiting their use in the making of further discoveries."<sup>[14]</sup>

Various Federal Circuits panels since *Bilski* have relied on preemption as a test for delineating the boundaries of subject matter eligibility.<sup>[15]</sup> Despite the frequent use of preemption as a judicial basis for denying patent protection, it fails to provide necessary grounding for patentable subject matter jurisprudence. It provides neither an answer on *why* certain subject matter should not receive patent protection, nor does it explain *how* to determine patent eligibility of claims that incorporate the judicially-exempted subject matters, such as abstract ideas, natural phenomenon, and laws of nature.

## Preemption Fails to Provide a Clear Rationale for Patentable Subject Matter

### Exclusion

The use of preemption as a rationale for subject matter exclusion raises the question of why preemption is selectively applied to certain categories of invention. If claims that preempt future research in a field are detrimental to "the Progress of Science,"<sup>[16]</sup> then preemption should reach all

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technological advancements with the potential to foreclose future development. In applying the preemption rationale, the courts conveniently overlook that patents are intended to produce exclusivities.<sup>[17]</sup>

In *Prometheus*, the natural law at issue—a specific correlation between a metabolite and the optimal amount of drug to administer—would impact a relatively narrow pool of research.<sup>[18]</sup> Allowing a claim over the practical application of the natural law would not have unduly impeded substantial amounts of future innovation; yet, the Court found the claims at issue to be preemptive.<sup>[19]</sup> The bigger problem with the approach taken by the *Prometheus* Court is that it provides no guidance on just how much future innovation must indeed be foreclosed in order for a claim to be found ineligible under the preemption test. The expansive nature of the preemption test, as endorsed by *Prometheus*, can invalidate numerous patents because nearly all patents can potentially inhibit some amount of future research and development.<sup>[20]</sup>

Preemption further fails as a rationale for subject matter exclusion because there are other requirements of patentability, elaborated under § 112 of the U.S. patent laws, that are better suited to prevent claims from engulfing more than what is purportedly invented.<sup>[21]</sup> These include: the written description, enablement, and claim definiteness requirements, all of which serve to rein in the scope of a given claim.<sup>[22]</sup> The novelty and non-obviousness requirements under §§ 102 and 103 of the U.S. patent laws, could counter the over-breadth issues as well.<sup>[23]</sup> Preemption should thus be a last resort. Inability to invent around a claim, in and of itself, does not provide adequate justification for resorting to a § 101 analysis to exclude a claim from patent protection.

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## Preemption Fails to Provide a Framework for Determining the Patent Eligibility of Claims

Even if we assume that the preemption approach is needed to safeguard competitive development, it is unclear how the doctrine can be applied to gauge the patent eligibility of a given claim. The many court decisions that invoke preemption have failed to provide a framework for its application, particularly to claims that combine a *per se* unpatentable element (i.e., a law of nature, natural phenomenon, and abstract idea) with other claim limitations.<sup>[24]</sup> Preemption provides no clarity on how to determine the degree of abstractness in an invention;<sup>[25]</sup> in other words, preemption does not help in distinguishing between an unpatentable law of nature or mathematical formula from a patentable “*application* of a law of nature or mathematical formula.”<sup>[26]</sup> Further, deployment of the preemption analysis provides no answer as to whether a claim contains a sufficient “inventive concept,” beyond the *per se* unpatentable elements, to bring the claim within the realm of patent protection. The *Prometheus* Court, for instance, goes no further than to pronounce that the claims at issue would unduly preempt competitive development.<sup>[27]</sup> None of the other Supreme Court decisions on the topic provide any guidance on how to use preemption as an independent test for evaluating the patent eligibility of claims. By raising the preemption argument without providing any direction on how to apply it as a test for patent eligibility, the Supreme Court has only added to the confusion that muddles the already “murky morass”<sup>[28]</sup> of patentable subject matter analysis.

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discussions set forth in this Article are the personal views of the author and does not reflect the views of Finnegan or any of its clients.

[2] 35 U.S.C. § 101 (2012) (“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.”).

[3] See, e.g., *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980); *Diamond v. Diehr*, 450 U.S. 175, 185 (1981).

[4] See *In re Bilski*, 545 F.3d 943, 1012 (Fed. Cir. 2008) (Radar, J., dissenting) (suggesting that nothing explains “why . . . some categories of invention deserve no protection.”).

[5] Katherine J. Strandburg, *Much Ado About Preemption*, 50 HOUS. L. REV. 563, 563–64 (2012) (discussing the Supreme Court’s frequent use of the preemption rhetoric in the subject matter exclusion analysis).

[6] Although the copyright regime can be used for IP protection of computer software, copyright protection for software is highly limited because it only extends to a particular form in which an idea is expressed. Therefore, the software industry relies heavily on patents to protect the innovative idea embodied in a software program.

[7] See, e.g., Rochelle C. Dreyfuss & James P. Evans, *From Bilski Back to Benson: Preemption, Inventing Around, and the Case of Genetic Diagnostics*, 63 Stan. L. Rev. 1349, 1351-52 (2011); Mark A. Lemley, et al., *Life After Bilski*, 63 STAN. L. REV. 1315, 1318, 1344 (2011).

[8] *Gottschalk v. Benson*, 409 U.S. 63, 72 (1972) (The *Gottschalk* Court explained that a patent including the claims at issue “would wholly pre-empt the mathematical formula [for converting BCD numerals to pure binary numerals] and in practical effect would be a patent on the algorithm itself.”).

[9] Strandburg, *supra* note 5, at 567.

[10] *Bilski v. Kappos*, 130 S. Ct. 3218 (2010).

[11] *Mayo Collaborative v. Prometheus Labs.*, 132 S. Ct. 1289 (2012).

[12] *Bilski*, 130 S. Ct. at 3231.

[13] *Prometheus*, 132 S. Ct. at 1294 (explaining that the “inability to invent around” should not be “more than a clue to patentability” because “patents are intended to produce exclusivity,” and “at some level no claim can be invented around”).

[14] *Id.*

[15] See, e.g., Flavio M. Rose, *Patentable subject matter and preemption*, INTELLECTUAL PROPERTY EXPERTS GROUP (Jan 28, 2012), <http://www.ipeg.eu/patentable-subject-matter-and-preemption> (providing a summary of the post-*Bilski* Federal Circuit cases dealing with § 101 and commenting on the use of preemption as a test for patent eligibility).

[16] U.S. Const. art. I, § 8, cl. 8 (granting inventors the exclusive rights to their inventions for a limited time to promote the progress of science).

[17] See, e.g., Dreyfuss & Evans, *supra* note 7, at 1371 (explaining that the inability to invent around should not be more than a clue to patentability because patents are intended to produce exclusivity, and at some level no claim can be invented around).

[18] Ted Sichelman, *Funk Forward: Funk Brothers Seed Co. v. Kalo’s Pernicious Effects on Patentable Subject Matter in Prometheus and Otherwise*, in *Intellectual Property at the Edge: The Contested Contours of IP*, Rochelle Dreyfuss, Jane Ginsburg & Carol Rose eds., forthcoming 2013, available at SSRN:<http://ssrn.com/abstract=2035027>, at 13.

[19] Strandburg, *supra* note 5, at 583.

[20] See Sichelman, *supra* note 18, at 12 (arguing that “nearly all inventions can be viewed as embodying natural laws, natural phenomena, or abstract ideas . . . all claimed inventions will tend to foreclose ‘inhibit’ at least some non-trivial amount of ‘future research,’ because nearly all inventions can be improved.”) (internal citation omitted).

[21] See, e.g., Dennis Crouch & Robert P. Merges, *Operating Efficiently PostBilski by Ordering Patent Doctrine Decision-Making*, 25 BERKELEY TECH. L.J. 1673, 1674 (2010) (arguing that the validity of a patent should be subject first to sections 102, 103, and 112, and the full § 101 analysis should be deployed only when it is essential, i.e., when a claim passes muster under the other validity doctrines); see also Dreyfuss & Evans, *supra* note 7, at 1376 (explaining that “There are many ways to preserve a robust creative environment, including through the disclosure and utility requirements”).

[22] See 35 U.S.C. § 112 (2012).

[23] See *supra* note 20.

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[24] See Strandburg, *supra* note 5, at 563-64 (discussing that most of the Supreme Court's patentable subject matter decisions apply a *per se* exclusion analysis, and that application of preemption to such analysis leads to confusion and incoherence).

[25] Bryan Treglia, *Patentable Subject Matter: Separating Abstract Ideas and Laws of Nature from Patentable Inventions*, 48 JURIMETRICS 427, 451 (2008) (discussing that the level of abstractness of an invention is significant in separating abstract ideas and laws of nature from patentable inventions, but there is no obvious way to distinguish between "purely abstract inventions" and "machines" representing a specific application of a law of nature).

[26] *Bilski*, 130 S. Ct. at 3230 (quoting *Diamond v. Diehr*, 450 U.S. 175, 187 (1981)) (emphasis in original).

[27] *Prometheus*, 132 S. Ct. at 1294.

[28] *MySpace, Inc. v. GraphOn Corp.*, 672 F.3d 1250, 1260 (Fed. Cir. 2012) (referring to § 101 jurisprudence as a "swamp of verbiage" and a "murky morass").

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