

By their nature, innovations in science and technology often take unpredictable forms. As such, the drafters of the 1952 Patent Act put limited restrictions on the ambit of patentable subject matter under § 101, requiring only that the process, machine, manufacture, or composition of matter at issue be “new and useful” to be patent-eligible. 35 U.S.C. § 101. Section 101 implicitly excludes “laws of nature, natural phenomena, and abstract ideas” from the realm of patent-eligible subject matter, as articulated by the Supreme Court. *Diamond v. Diehr*, 450 U.S. 175, 185 (1981). *See also O’Reilly v. Morse*, 15 How. (56 U.S.) 62 (1853) (denying a claim for the use of electromagnetism under § 101 because electromagnetism is a natural phenomenon); *Gottschalk v. Benson*, 409 U.S. 63 (1972) (finding a claim for an algorithm invalid under § 101 because it was no more than a representation of a law of nature); *Parker v. Flook*, 437 U.S. 584 (1978) (denying patent protection to a claim for an algorithm under § 101 because the application claimed nothing more than a law of nature and therefore was not new, but noting that “an inventive application” of such a principle may be patented). As these cases show, natural phenomena and laws of nature can never be “new” because they inherently preexist any human discovery, while abstract ideas are not “useful” absent any inventive and practical application. The categorical exclusions of laws of nature, natural phenomena, and abstract ideas from the reach of § 101 eligibility are thus directly warranted by the language of that Act itself.

Aside from these established exceptions, the parameters of § 101 must be construed broadly in order to allow for flexibility and adaptation to ever-

evolving technological innovations, keeping the doors of patentability open to new innovations regardless of whether their form fits within any previously-known conception of “process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. In *State Street*, the Federal Circuit correctly instructed courts faced with § 101 challenges to focus not on a claim’s formalistic embodiment, but rather on whether the claimed invention was in fact useful. *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1375 (Fed. Cir. 1998) (“The question of whether a claim encompasses statutory subject matter should not focus on which of the four categories of subject matter a claim is directed to . . . but rather on the essential characteristics of the subject matter, in particular, its practical utility”). The simplicity and clarity of *Chakrabarty*’s “anything under the sun” standard will allow PTO examiners to focus their energy on § 101’s straightforward utilitarian requirement, rather than struggling to retrospectively define the parameters of the four categories of patentable subject matter in the face of evolving technological formats. *Chakrabarty*, 44 U.S. at 309.

II. THE MACHINE-OR-TRANSFORMATION TEST FOR PROCESS CLAIMS UNNECESSARILY RESTRICTS THE SCOPE OF PATENTABLE SUBJECT MATTER BECAUSE THE PATENT ACT'S REQUIREMENTS UNDER §§ 102, 103, AND 112 ALREADY SERVE AS SUFFICIENT FILTERS FOR CLAIMS THAT ARE TRULY BEYOND THE SCOPE OF PATENTABILITY.

Setting rigid, formalistic requirements for the form of patentable processes risks foreclosing the possibility of patent protection for many new and useful processes without need, as the case-specific analyses prescribed under §§ 102, 103, and 112 already provide sufficient filtering of claims that do not warrant patent protection. Two Federal Circuit decisions post-*Bilski* are illustrative. See *In re Comiskey*, 554 F.3d 967 (Fed. Cir. 2009) (finding petitioner's claims for a method and system for mandatory arbitration which did not require the use of any mechanical device invalid under § 101 because it failed the *Bilski* test, even though the Board of Patent Appeals and Interferences had previously found the claims invalid under § 103); *In re Ferguson*, 558 F.3d 1359 (Fed. Cir. 2009) (invalidating claims for methods and paradigms for marketing products under *Bilski*'s § 101 test even though the PTO examiner had previously found the claims invalid under §§ 102, 103 and 112). In both cases, the Federal Circuit's application of *Bilski* was superfluous, as the claims at issue had already been found invalid on their merits as anticipated, obvious, or inadequately disclosed. *Id.*

decisions at the Board of Patent Appeals and Interferences show that the PTO is already struggling to consistently apply § 101 to existing fields of technology under the new test. As such, attempts to narrowly and strictly define the parameters of § 101-eligible subject matter should be abandoned, and the focus of the PTO and the courts should return to the Act's requirements of utility, novelty, non-obviousness, and enablement.

ARGUMENT

I. PATENTABLE SUBJECT MATTER UNDER § 101 SHOULD BE CONSTRUED AS BROADLY AS POSSIBLE, IN KEEPING WITH THE SECTION'S STATUTORY LANGUAGE, IN ORDER TO ACCOUNT FOR THE UNPREDICTABLE NATURE OF INNOVATION IN TECHNOLOGY AND SCIENCE.

Consistent with 35 U.S.C. § 101's language, providing that "*any* new and useful process, machine, manufacture, or composition of matter, or *any* new and useful improvement thereof" may be patented as long as it meets all other statutory requirements set forth in the Patent Act, the parameters of patentable subject matter under § 101 should be broad and flexible in order to encompass the widest variety of new and useful inventions. 35 U.S.C. § 101. *Diamond v. Chakrabarty* lays out the appropriate test for § 101 eligibility, defining patentable subject matter as "anything under the sun that is made by man" provided § 101's utilitarian requirement is also met. *Chakrabarty*, 447 U.S. at 309 (emphasis added).

INTRODUCTION AND SUMMARY OF ARGUMENT

The Federal Circuit's *en banc* holding in *In re Bilski*, imposing a threshold requirement that a process claim must be tied to a particular machine or apparatus or transform a particular article into a different state or thing in order to qualify as eligible subject matter under 35 U.S.C § 101, should be reversed because it arbitrarily and unnecessarily constricts the scope of patentable subject matter. The scope of patentable subject matter was appropriately defined by the Supreme Court in *Diamond v. Chakrabarty* as "anything under the sun that is made by man." *Diamond v. Chakrabarty*, 44 U.S. 303, 309 (1980). The § 101 analysis should focus on the section's substantive utilitarian requirement, rather than retrospectively attempting to rigidly define the categories of patentable subject matter without the foresight of the particular form technological innovations may take in the future.

The Federal Circuit's machine-or-transformation test also unnecessarily narrows the pool of patent-eligible process technologies, particularly as to software and information technology, as the established analyses required under §§ 102, 103, and 112 already provide sufficient filtering of claims that are truly beyond the scope of protection intended by the Patent Act. Lastly, due to the rapidly-evolving nature of advances in science and technology, the narrow *Bilski* test, like its predecessors, will prove more confusing than clarifying as its strict requirements will become increasingly difficult to apply to emerging technologies. In fact, post-*Bilski*

Further, the reanalysis of the *Comiskey* and *Ferguson* claims under *Bilski* did not add any practical value to the broader issue at hand, i.e., how to approach and evaluate unprecedented innovation while remaining true to the Patent Act's purpose of promoting "the progress of . . . useful arts." U.S. CONST., art. I § 8 (emphasis added). Simply dismissing potentially innovative and useful processes at the threshold, because they are not tied to a particular machine or do not transform one article into another state or thing, without reaching the heart of the patent analysis under §§ 102, 103 and 112 provides little practical guidance for inventors working in unprecedented fields of technology. Rather, the *Bilski* test arbitrarily cuts off the prospect of patentability to many emerging technological fields simply because they do not fit within the familiar format of inventions past.

In her concurrence in *In re Ferguson*, Judge Newman expressed her discontent with the majority's narrow interpretation of § 101 under *Bilski*, finding it incompatible with the changing nature of advances in technology. *In re Ferguson*, 558 F.3d at 1040-41 (Fed. Cir. 2009) (Newman, J., concurring) (concurring in the judgment based on the PTO's conclusion that the claims at issue were obvious and therefore failed under § 103). Judge Newman warned that the court's application of *Bilski*'s machine-or-transformation test could create an artificial barrier to patentability for many new information technologies. *Id.* at 1041. While many of these methods and processes do not take the familiar physical form of past inventions, "blurring the traditional line between machine and human," many nonetheless enhance human capabilities and

therefore warrant at least a fair consideration under the Patent Act's substantive criteria set forth in §§ 102, 103 and 112. *Id.* at 1041. Foreclosing patentability to these new technologies at the § 101 threshold is "unworthy of [the court's] responsibility to support innovation in the future." *Id.* at 1041. The more targeted statutory requirements of novelty, non-obviousness, and enablement serve as sufficient gatekeepers for the patent system, allowing for a flexible, case-by-case analysis of unprecedented subject matter.

III. AS TECHNOLOGY AND SCIENCE EVOLVE, RIGID SUBJECT MATTER REQUIREMENTS SUCH AS THE *BILSKI* MACHINE-OR-TRANSFORMATION TEST WILL RAISE MORE QUESTIONS REGARDING SUBJECT MATTER ELIGIBILITY THAN THEY ANSWER.

Setting retrospective, rigid parameters for the categories of patentable subject matter will confuse, rather than clarify, the § 101 analysis, and take the focus away from more instructive and informative inquiries into utility, novelty, non-obviousness, and enablement.

- A. The PTO's Application of the *State Street* "Useful, Concrete and Tangible Result" Test Highlights the Futility of Rigid Tests for § 101.

In November 2005, many years after the decision in *State Street*, the PTO promulgated the *Interim Guidelines for Examination of Patent Applications for Subject Matter Eligibility* (Nov. 22, 2005)

arbitrary and artificial test that fails to anticipate future technology while usurping the roles of novelty, nonobviousness, and other Patent Law requirements as proper arbiters of patentability.

FICPI's members serve the world's community of inventors in seeking protection for their inventions. Because many of its members are foreign practitioners, FICPI has a unique perspective on the global impact of the diminishing viability of certain categories of process claims in the United States. In this vein, FICPI desires to ensure that its members' clients are afforded fair protection for their inventions, and therefore respectfully submits this brief in support of neither party.

INTEREST OF *AMICUS CURIAE*

Pursuant to Supreme Court Rule 37, Fédération Internationale Des Conseils En Propriété Industrielle (“FICPI”) submits this brief as *amicus curiae* in support of neither party.¹ All parties were notified of FICPI’s intent to file this brief and their consents to this filing have been filed with this Court.

Established in 1906, FICPI is a Switzerland-based international and non-political association of approximately 4,800 intellectual property attorneys from over eighty countries, including the United States. FICPI’s members represent individual inventors as well as large, medium and small companies. One of the members’ major roles is to advise inventors in intellectual property matters and secure protection for industrial innovation. FICPI supports predictable, balanced global protection of patents, the global harmonization of substantive patent law, and the interests of inventors and the U.S. Patent and Trademark Office (“the PTO”) for recognizing a fair scope of patent protection consistent with the goals of the patent system and the expectations of the inventing public.

FICPI is concerned that the Federal Circuit has disregarded Congress’s intent of allowing for a broad scope of patentable subject matter in crafting an

¹ Pursuant to Supreme Court Rule 37.6, counsel for *Amicus Curiae* certifies that this brief was not written in whole or in part by counsel for any party, and that no person or entity other than *Amicus Curiae* or its counsel has made a monetary contribution to the preparation or submission of this brief.

(“Guidelines”) to clarify and streamline the § 101 analysis under *State Street*, which was apparently causing confusion among examiners. However, the Guidelines featured eight distinct ancillary tests and additional subtests for determining whether a claim constituted statutory subject matter. Guidelines at 14-23. *State Street*’s useful, tangible, and concrete result test alone required four distinct sub-tests to clarify, albeit unsuccessfully, what exactly useful, tangible, and concrete results are. *Id.* at 20-22. Thus, the Guidelines produced even more inconsistent and conflicting results.

Many of the ancillary tests adopted in the Guidelines originated as attempts to clarify the meaning of previous requirements. *See* Memorandum to the United States Patent and Trademark Office from Brian Hickman, *Comments on Interim Guidelines*, 4 (May 19, 2006) (“Hickman”) (criticizing the PTO’s interpretation of certain § 101 case law, which resulted in further confusion).² This hopeless

² In a commentary expressing his consternation with the Guidelines, Hickman clarified that many of the distinct ancillary requirements adopted by the PTO “were originally nothing more than attempts to clarify the meaning of other requirements.” Hickman at 4. Using the *State Street* test to illuminate this point, he noted that “the ‘substantially repeatable result’ requirement stems from a USPTO attempt to clarify of the ‘concrete result’ requirement. *Id.* The ‘concrete result’ requirement stems from a judicial pronouncement of a ‘useful, tangible and concrete result’ consideration. The ‘useful, tangible and concrete result’ consideration was originally given as an example of how a claim could be shown to satisfy the ‘practical application’ requirement. The ‘practical application’ requirement was initially intended to help distinguish patentable eligible subject matter from ‘abstract ideas, laws of nature and natural phenomenon.’ Finally, the ‘abstract ideas, laws of nature and natural phenomenon’ categories were

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array of overlapping tests resulted in disparate and conflicting interpretations by examiners. *Id.* at 1-2 (listing several examples of conflicting PTO rejections, including (1) a rejection that erroneously suggested that if the applicant had simply stated that the claimed method was performed on a computer, it would be saved from the abstract idea exception because the addition of a computer, without more, would assure that the claim produced a concrete, useful, tangible result and therefore had practical utility, and (2) a rejection for improper subject matter because the claims were not directed at a “final result that is useful, tangible, and concrete,” convoluting the *State Street* test).

B. The Machine-or-Transformation Test Similarly Fails to Provide Adequate Guidance while Threatening the Viability of Many Innovations.

In establishing the new machine-or-transformation test, which was designed to cut through some of the confusion surrounding the useful, tangible, and concrete test, the *Bilski* majority reaffirmed the concept that process claims (including software and business methods) are “subject to the same legal requirements for patentability as applied to any other process or method.” *Bilski*, 545 F.3d at 960 (quoting *State Street*, 149 F.3d at 1375-76). Although the majority acknowledged that “future developments in technology and the sciences may present difficult challenges to the machine-or-transformation test”

created to explain what types of things do not fall into any of the four statutory categories of section 101.” Hickman at 4.

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that require altering it or even setting it aside, the reality is that the test has *already* proven difficult to consistently apply, and has had a detrimental impact on the patentability of many *existing* technological innovations.

Despite the Federal Circuit’s assurance that it was declining to categorically bar certain categories of claims, the practical result is nonetheless a great hindrance to the scope of patentability in many software-related fields. In particular, the Federal Circuit failed to decide in *Bilski* whether a claim limitation of implementation on a “general purpose computer” (*e.g.*, a personal computer) would tie a claim to a “particular machine” for purposes of the machine-or-transformation test. *See* 545 F.3d at 994 (Newman, J., dissenting). Left with the decision, the PTO has answered the question in the negative, thus imperiling the viability of thousands of software and other computer-implemented claims, notwithstanding their usefulness, novelty, nonobviousness, and indeed, their social and economic value. *See, e.g., Ex parte Langemyr*, 2008 WL 5206740 (B.P.A.I. May 28, 2008) (rejecting as non-statutory subject matter a claim for a “method executed in a computer apparatus” for producing a model of a physical system using a set of equations because the transformation only occurs with respect to abstract equations and not to a physical article); *Ex parte Nawathe et al.*, 2009 WL 327520 (B.P.A.I. Feb. 9, 2009) (distinguishing between a “computerized method” to a general purpose processor, which is not patentable, and a apparatus directed to a general purpose computer, which is patentable); *cf. Ex parte Cornea-Hasegan*, 2009 WL 86725 (B.P.A.I. Jan. 13, 2009) (holding that a method

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reciting a “processor” using “floating-point hardware” was not tied to a particular machine”); *Ex parte Wasynczuk*, 2008 WL 2262377 (B.P.A.I. June 2, 2008) (affirming the § 101 rejection of a claim that recited a “computer-implemented” process of modeling physical systems, but finding patentable a dependent claim that required the two steps of the claimed process to be performed by a first and second “physical computing device,” reasoning that an embodiment featuring two computers operating together was sufficient to constitute a “particular machine,” but not the embodiment specifying a single computer).

Patents in other existing technological fields have also been imperiled by B.P.A.I. decisions that purportedly follow *Bilski*. In the computer networking field, the B.P.A.I. has determined that claims reciting “a number of clients,” “a network,” and “a server” are not tied to a particular machine. *Ex parte Harris*, 2009 WL 86719, (B.P.A.I. Jan. 13, 2009); *cf. Ex parte Uceda-Sosa*, 2008 WL 4950944, (B.P.A.I. Nov. 18, 2008) (finding as eligible under § 101 a claim directed to “a network executing a method”). With respect to databases, the B.P.A.I. in *Ex parte Koo*, 2008 WL 5054161 (B.P.A.I. Nov. 26, 2008), found that a claim reciting “[a] method for optimizing a query in a relational database management system” not to be tied to a particular machine, reasoning that because a relational database system may be a software system, it is unpatentable if it fails to recite the system “in terms of hardware or tangible structural elements.”

As the foregoing illustrates, in addition to jeopardizing the patentability of otherwise useful

<p>III. AS TECHNOLOGY AND SCIENCE EVOLVE, RIGID SUBJECT MATTER REQUIREMENTS SUCH AS THE <i>BILSKI</i> MACHINE-OR-TRANSFORMATION TEST WILL RAISE MORE QUESTIONS REGARDING SUBJECT MATTER ELIGIBILITY THAN THEY ANSWER.....</p> <p style="padding-left: 2em;">A. The PTO’s Application of the <i>State Street</i> “Useful, Concrete and Tangible Result” Test Highlights the Futility of Rigid Tests for § 101.....</p> <p style="padding-left: 2em;">B. The Machine-or-Transformation Test Similarly Fails to Provide Adequate Guidance, while Threatening the Viability of Many Innovations.....</p> <p>CONCLUSION</p>	<p>9</p> <p>9</p> <p>11</p> <p>14</p>
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and innovative inventions, the *Bilski* machine-or-transformation test, like *State Street's* useful, concrete, and tangible result test before it, fails to provide adequate guidance for practitioners and examiners, thus leading to diverging interpretations. This failure is due in significant part to the limitations of language; it is inevitably challenging to fashion a easily-applied test that encompasses all of mankind's inventive endeavors using words alone.

Rather than create more confusion and unnecessary debate over the parameters of § 101 by creating another test, the Court should focus the patent community's attention back to the time-tested evaluations under §§ 102, 103, and 112.

CONCLUSION

For the foregoing reasons, the judgment of the court of appeals should be reversed.

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BERNARD L. BILSKI AND RAND A. WARSAW,
Petitioners,

v.

JOHN J. DOLL, ACTING UNDER SECRETARY OF
COMMERCE FOR INTELLECTUAL PROPERTY AND ACTING
DIRECTOR, PATENT AND TRADEMARK OFFICE,
Respondent.

**On Writ Of Certiorari to the
United States Court of Appeals
for the Federal Circuit**

**BRIEF OF FÉDÉRATION INTERNATIONALE
DES CONSEILS EN PROPRIÉTÉ
INDUSTRIELLE AS *AMICUS CURIAE* IN
SUPPORT OF NEITHER PARTY**

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