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The Search for America's Most Eligible Patent: The Impact of the Bilski Decision on Obtaining Patents for Processes and Business Methods

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THE SEARCH FOR AMERICA'S MOST ELIGIBLE PATENT: THE IMPACT OF THE *BILSKI* DECISION ON OBTAINING PATENTS FOR PROCESSES AND BUSINESS METHODS

ABSTRACT

For one year, the business community, patent lawyers, and the media in the United States speculated as to how the Supreme Court would rule in Bilski v. Kappos. Some forecasted the end of all business method patents, while others advanced the idea that after the case, practically any business method could be patented. When the dust settled, the Court's holding did neither: it determined that the machine-or-transformation test is not the exclusive test for patent eligibility under Section 101, and left open the possibility for business method patents to withstand future challenges.

While this result frustrated many that advocated for a bright-line rule, the Court decided Bilski correctly. Instead of making a sweeping decree, the Court placed the burden back on the Court of Appeals for the Federal Circuit (CAFC) to develop a nuanced body of case law concerning business method patents and the qualities sufficient to pass muster under Section 101. The CAFC is exactly where this type of case law should be made, because it has a level of experience in deciding patent appeals cases and developing patent law that is unmatched. This also leaves the door open for the Supreme Court to take a future case regarding business method patents if an issue arises regarding the case law made by the CAFC. As the nature of technology remains a fluid concept, the laws that govern this field need to be able to adapt with changing circumstances. The Supreme Court's holding in Bilski facilitates this concept, but further complicates business method analysis.

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Introduction

For one year, the business community, patent lawyers, and the media in the United States speculated as to how the Supreme Court would rule in *Bilski v. Kappos*. Beginning with the Supreme Court's decision to grant certiorari to Bernard Bilski and Rand Warsaw on June 1, 2009, ¹ and continuing through when the Supreme Court issued its opinion on June 28, 2010, ² licensing companies, investment banks, patent brokers, lobbyists, patent attorneys, and intellectual property scholars eagerly awaited the ruling from the high court. ³ At issue was the patent eligibility of a business method. If the Court decided the case broadly, many feared the invalidation of all business method patents, which would forever change commerce in the United States. ⁴

The central issue in *Bilski v. Kappos* was whether a method of hedging the risk of commodities trading in the energy market could be categorized as a "process"—this per the definition of that term in the Patent Law section of the United States Code: 35 U.S.C. § 101 (Section 101),⁵ and in case law that further defined the scope of Section 101.⁶ Section 101 states that "[w]hoever invents or discovers any new and useful process ... or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title." This decision had the potential to affect business on a much larger scale than the narrow context of energy market commodities in *Bilski*, because the Supreme Court was presented with the opportunity to invalidate all business method patents.

¹ David Carney, *Supreme Court Grants Cert in* In re Bilski, TECH. L.J., (June 1, 2009), http://www.techlawjournal.com/topstories/2009/20090601.asp.

² Bilski v. Kappos, 130 S. Ct. 3218 (2010).

³ See Jon Schwartz, Broad View of Patents on Methods, N.Y. TIMES, June 29, 2010, at B1.

⁴ See id.

⁵ 35 U.S.C. § 101 (2006).

⁶ *Bilski*, 130 S. Ct. at 3225. For case law that defined the scope of Section 101, see Diamond v. Chakrabarty, 447 U.S. 303, 309 (1980) (holding that a man-made, living micro-organism "plainly qualifies as patentable subject matter"); State St. Bank & Trust Co. v. Signature Fin. Grp., 149 F.3d 1368, 1370 (Fed. Cir. 1998) (holding that petitioner's patent claims to a data processing system were directed to statutory subject matter). Though both the United States Court of Appeals for the Federal Circuit and the Supreme Court subsequently overruled the *State Street* holding in *Bilski*, *State Street* represented the law that lower courts applied before the *Bilski* line of cases.

⁷ 35 U.S.C. § 101.

⁸ See Steve Lohr, Bilski Ruling: The Patent Wars Untouched, N.Y. TIMES BITS BLOG (June 28, 2010, 7:31 PM), http://bits.blogs.nytimes.com/2010/06/28/bilski-ruling-the-pat ent-wars-untouched/.

Concern among big businesses was sufficiently high for Microsoft and Google to file amicus briefs, "appealing for court-defined clarity on what is and is not a patentable idea."9

When the Supreme Court finally issued its long-awaited opinion, the narrow holding was both anticlimactic 10 and unhelpful in applying a prospective rule regarding business method patents.¹¹ The Supreme Court held that the machine-or-transformation test is not the sole test for determining the patent eligibility of a process, 12 and that Bilski and Warsaw's method of hedging the risk of commodities trading in the energy market was an "unpatentable abstract idea." 13 Josh Lerner, a Harvard Business School patent expert, noted: "The court is certainly not shutting the door on business method patents, as some thought it might This [decision] preserves a fair amount of ambiguity." Though companies such as Microsoft and Google argued for a bright line test in their amicus briefs, 15 I.B.M. advocated a holding more in line with the Supreme Court's ultimate decision.¹⁶ This indicates a lack of consensus among even big businesses as to the most preferable means of business method patent review. On one side stand supporters for a bright line rule; on the other are those in favor of case-by-case review, an approach that could potentially increase litigation.¹⁷

Part I of this Note will first examine the machine-or-transformation test as one method of determining the patent eligibility of a process, as well as the relationship between that test and Section 101, which indicates the type of subject matter that is patentable. Part I will then examine proposed changes to Section 101 by the U.S. Patent and Trademark Office (PTO), prior case law, and the decision rendered by the Court in *Bilski*.

¹⁰ *Id.* ("The court [sic] issued its much-anticipated ruling in the big patent case ... and it was anything but a landmark decision.").

⁹ *Id*.

¹¹ See id. ("Companies ... will be forced to navigate an increasingly abstract patent minefield, raising business uncertainty and legal costs.") (internal quotation marks omitted). ¹² Bilski v. Kappos, 130 S. Ct. 3218, 3227 (2010).

¹³ *Id.* at 3231.

¹⁴ Lohr, *supra* note 8 (internal quotation marks omitted).

¹⁶ Id. ("Manny W. Schecter, I.B.M.'s chief patent counsel, praised the Supreme Court decision as a measured middle ground—'exactly what I.B.M. argued for,' in its brief filed with the court.").

¹⁷ See Jon Schwartz, Justices Hear Patent Case on Protecting the Abstract, N.Y. TIMES, Nov. 10, 2009, at B1. Schwartz discusses how some technology companies, such as Yahoo, favored a broad reading of patent protection, while others, such as Microsoft and Google, argued for restricting business method patents. Id.

Part II will look at decisions from the United States Court of Appeals for the Federal Circuit (CAFC) that followed in the wake of the *Bilski* holding. Finally, Part III will argue that the Court correctly arrived at its holding in *Bilski*, and that it is the responsibility of the CAFC to develop case law on patent eligibility.

I. BACKGROUND

A. Machine-or-Transformation Test

The CAFC reiterated the "machine-or-transformation" test in its *In re Bilski* opinion: "A claimed process is surely patent-eligible under § 101 if: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing." In articulating this test, the CAFC abandoned its previous test for deciding whether a claimed invention was a patentable "process" under Section 101. That test had asked whether the process produced "a useful, concrete, and tangible result."

In abandoning its earlier test, the CAFC held the "machine-or-transformation test" to now be "the sole test governing § 101 analyses," and thus the dispositive "test for determining patent eligibility of a process under § 101." Upon subsequently applying the machine-or-transforma-

¹⁸ *In re* Bilski, 545 F.3d 943, 956 (Fed. Cir. 2008). For earlier uses of the machine-ortransformation test, see also Diamond v. Diehr, 450 U.S. 175, 184 (1981) (holding respondent's claim drawn to patentable subject matter because it transformed an article into a different state or thing); Parker v. Flook, 437 U.S. 584, 588 n.9 (1978) (arguing that the Court could be seen at the time as having "only recognized a process as within the statutory definition when it either was tied to a particular apparatus or operated to change materials to a 'different state or thing.'" (quoting Cochrane v. Deener, 94 U.S. 780, 787–88 (1877))); Gottschalk v. Benson, 409 U.S. 63, 68 (1972) (indicating the rationale behind the machine-or-transformation test dates back at least as far as the Court's nineteenth century decision in O'Reilly v. Morse, 56 U.S. (15 How.) 62 (1853)).

¹⁹ See id. at 991 (Newman, J., dissenting) (criticizing the majority for departing from the analysis of prior rulings).

²⁰ State St. Bank & Trust Co. v. Signature Fin. Grp., 149 F.3d 1368, 1373 (Fed. Cir. 1998). The PTO granted Signature Financial Group U.S. Patent 5,193,056, entitled "Data Processing System for Hub and Spoke Financial Services Configuration." The "spokes" were mutual funds that pooled their assets in a central "hub." *See* AT&T Corp. v. Excel Commc'ns, Inc., 172 F.3d 1352, 1357 (Fed. Cir. 1999) (citing *In re* Alappat, 33 F.3d 1526, 1544 (Fed. Cir. 1994)) (finding accord with Supreme Court rulings that an algorithm may be patentable if applied in a useful manner).

²¹ *In re Bilski*, 545 F.3d at 955–56.

²² *Id.* at 956.

tion test, the CAFC held in *In re Bilski* that the petitioners' application was not patent-eligible.²³

Bernard Bilski and Rand Warsaw's chances of successfully achieving patent eligibility would probably have been much greater under the CAFC's previous test. ²⁴ Their claimed invention used a process to produce instructions to commodities traders on how to hedge their investments based on changing market conditions, and satisfying this standard would have been much easier than the test the CAFC adopted, because Bilski and Warsaw would argue that their process produced useful, concrete, and tangible results in the form of the instructions to commodities traders. ²⁵ In what appeared to be an attempt by the CAFC to limit the scope of business method patents, however, it essentially changed the rules of the game. Because the holding indicated that the "machine-ortransformation" method was now the exclusive test, the validity of all business method patents was suddenly in jeopardy. In order to more fully understand the impact of the CAFC's holding in *In re Bilski*, it is important to underscore how Section 101 interacts with the machine-ortransformation test and business method patents in general.

B. Section 101

Section 101 states: "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." The broad language of Section 101 requires both the federal courts and the PTO to determine more specific requirements for a new and useful process. After the decision in *Bilski*, the PTO issued interim guidelines for its examiners to use while the organization worked on rewriting the guidelines. The new factors

²⁴ See supra note 20 and accompanying text.

²⁷ See In re Bilski, 545 F.3d at 952 ("And the underlying legal question thus presented is what test or set of criteria governs the determination by the Patent and Trademark Office ('PTO') or courts as to whether a claim to a process is patentable under § 101").

²³ *Id.* at 963–66.

²⁵ See Bilski v. Kappos, 130 S. Ct. 3218, 3223 (2010).

²⁶ 35 U.S.C. § 101 (2006).

^{....&}quot;).

²⁸ See Memorandum from Robert W. Bahr, Acting Assoc. Comm'r for Patent Examination Policy to the Patent Examining Corps (July 27, 2010), available at http://www.uspto.gov/patents/law/exam/bilski_guidance_27jul2010.pdf ("The Interim Bilski Guidance provides factors to consider in determining whether a claim is directed to an abstract idea and is therefore not patent-eligible under 35 U.S.C. § 101. Under the Interim Bilski

"should be considered when analyzing the claim *as a whole* to evaluate whether a method claim is directed to an abstract idea." The factors that weigh in favor of eligibility for a patent are: "Recitation of a machine or transformation (either express or inherent)," "[t]he claim is directed toward applying a law of nature," and "[t]he claim is more than a mere statement of a concept." The listed factors that weigh in favor of ineligibility are simply the negative forms of the factors weighing in favor of eligibility. While this is obvious, it does not give much specific guidance other than adding "no" or "not" to the criteria for eligibility. It seems as though the PTO, perhaps rightfully so, is not entirely clear on the specific criteria to be used in evaluating process applications following the *Bilski* opinion.

It is evident that Section 101 and the accompanying PTO interim guidelines provide limited assistance to patent holders and licensing companies trying to predict whether their patents will be deemed invalid after *Bilski*. As a result, these tougher questions may have to be litigated in order to obtain a definitive response, as opposed to reliance on a bright line rule. The Supreme Court's interpretation of Section 101 provides some guidance, but only in very general terms.

C. The Supreme Court's Interpretation of Section 101

On a few occasions, the Supreme Court has commented on the scope of Section 101.³² In *Kewanee Oil Co. v. Bicron Corp.*, ³³ the Court indicated that Section 101 operates as an initial threshold condition: "[N]o patent is available for a discovery, however useful, novel, and nonobvious, unless it falls within one of the express categories of patentable subject matter..." Thus, the Supreme Court indicated that in order for an invention

Guidance, factors that weigh in favor of patent-eligibility satisfy the criteria of the machine-or-transformation test or provide evidence that the abstract idea has been practically applied, and factors that weigh against patent-eligibility neither satisfy the criteria of the machine-or-transformation test nor provide evidence that the abstract idea has been practically applied.").

²⁹ 101 Method Eligibility Quick Reference Sheet, U.S. PAT. & TRADEMARK OFF., http://www.uspto.gov/patents/announce/bilski_qrs.pdf (last updated Mar. 7, 2011).

³⁰ *Id*.

³¹ See id.

³² See Diamond v. Chakrabarty, 447 U.S. 303, 308 (1980); Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 483 (1974).

³³ *Kewanee Oil*, 416 U.S. at 470.

³⁴ *Id.* at 483.

to be patentable, it must fall within the "process" requirement of Section $101.^{35}$

The Supreme Court also indicated in *Diamond v. Chakrabarty*³⁶ that, "[i]n choosing such expansive terms [in Section 101] Congress plainly contemplated that the patent laws would be given wide scope."³⁷ The Court, however, went on to state that "[t]his is not to suggest that § 101 has no limits or that it embraces every discovery. The laws of nature, physical phenomena, and abstract ideas have been held not patentable."38 For an abstract idea, the Court gave the example that Isaac Newton would not have been able to patent the law of gravity, because this was something "free to all men." Therefore, although the Court indicated in Diamond that Congress intended the words of Section 101 to be interpreted expansively, it concluded that abstract ideas fall outside the Section's

Before Bilski, the Court did not elaborate on exactly where the line should be drawn regarding abstract ideas.⁴¹ A number of different factors ultimately forced the Court to decide to clarify this line, including: the CAFC's holding in *In re Bilski*, the language of Section 101, and the Supreme Court's prior interpretation of Section 101. These factors effectively set the stage for the Court's decision in *Bilski v. Kappos*.

D. Bilski v. Kappos: Patent Eligibility Under Section 101

Bernard L. Bilski and Rand Warsaw filed a patent application on April 10, 1997 for a method of hedging the risk of commodities trading in the energy market based on weather patterns and an analysis of historical

³⁵ *Id*.

³⁶ Chakrabarty, 447 U.S. at 303.

³⁸ Id. at 309; see also Bilski v. Kappos, 130 S. Ct. 3218, 3225 (2010) ("While these exceptions are not required by the statutory text, they are consistent with the notion that a patentable process must be 'new and useful.' And, in any case, these exceptions have defined the reach of the statute as a matter of statutory stare decisis going back 150 years." (citing Le Roy v. Tatham, 14 How. 156, 174-75 (1853))).

³⁹ Chakrabarty, 447 U.S. at 309 (quoting Funk Brothers Seed Co. v. Kalo Inoculant Co., 333 U.S. 127, 130 (1948)); see also Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 151 (1989).

⁴⁰ See Diamond v. Diehr, 450 U.S. 175, 185 (1981) ("This Court has undoubtedly recognized limits to § 101 Excluded from such patent protection are laws of nature, natural phenomena, and abstract ideas.").

⁴¹ See Parker v. Flook, 437 U.S. 584, 589 (1978) ("The line between a patentable 'process' and an unpatentable 'principle' is not always clear.").

pricing.⁴² The patent examiner rejected Bilski and Warsaw's patent.⁴³ Subsequently, the Board of Patent Appeals and later the CAFC affirmed the patent examiner's ruling.⁴⁴

The important claims for the patent application were claims one and four. The important claims for the patent application were claims one and four. Claim one explained a sequence of steps on how to hedge risk. Claim four plugged the concept described in claim one into a mathematical formula. The other claims in the application described how claims one and four could be applied to allow energy suppliers and consumers to minimize the risks resulting from fluctuations in market demand for energy. Kappos argued three reasons why the invention should not be patent-eligible: (1) [I]t is not tied to a machine and does not transform an article; (2) it involves a method of conducting business; and (3) it is merely an abstract idea. Bilski argued that nothing in Section 101 or the Supreme Court's jurisprudence mandated limiting approval of process patents to those claimed inventions that satisfied the machine-or-transformation test.

The Supreme Court disagreed with the CAFC's holding that the machine-or-transformation test was the sole test for determining whether an invention was a process, as the Court thought that this decision "impose[d] other limitations that are inconsistent with the text and the statute's purpose and design." The Court did not, however, indicate that the machine-or-transformation test was an *incorrect* test; it simply stated that it was not the *sole* test. The Court explained: "A categorical rule denying patent protection for 'inventions in areas not contemplated by Congress ... would

⁴² *Bilski*, 130 S. Ct. at 3223–24.

⁴³ *Id.* The patent examiner explained that "[the application] is not implemented on a specific apparatus and merely manipulates [an] abstract idea and solves a purely mathematical problem without any limitation to a practical application, therefore, the invention is not directed to the technological arts." (second alteration in original) (quoting App. to Pet. for Cert. 148a) (internal quotation marks omitted). *Id.*

⁴⁴ *Id.* at 3224.

⁴⁵ *Id.* at 3223.

⁴⁶ *Id.* at 3223–24.

⁴⁷ *Id.* at 3223.

⁴⁸ *Bilski*, 130 S. Ct. at 3224.

⁴⁹ *Id.* at 3223.

⁵⁰ See Reply Brief for Petitioner at 3, *Bilski*, 130 S. Ct. 3218 (No. 08-964), 2009 WL 3453657 at *3.

⁵¹ *Bilski*, 130 S. Ct. at 3226.

⁵² See id. ("Adopting the machine-or-transformation test as the sole test for what constitutes a 'process' (as opposed to just an important and useful clue) violates ... statutory interpretation principles.").

frustrate the purposes of the patent law."⁵³ As an example, the Court illustrated that if a categorical rule for patent applications had been previously adopted, many "unforeseen" innovations such as computer programs would not have been able to receive patents.⁵⁴ Patent law is seen as a dynamic field, one in which categorical rules are not particularly well suited.⁵⁵

The Court took no position on where to draw the line as to which specific criteria were important in making the determination on what types of inventions should be deemed patent-eligible.⁵⁶ The decision did not categorically foreclose the possibility of business methods receiving patents in the future, and it did not invalidate business method patents previously issued by the PTO.⁵⁷ In so deciding, the Court avoided the catastrophic result feared by many in the business sector.⁵⁸ Here, the Court essentially declined to articulate a bright-line test that could be applied in future cases, as urged by Google and Microsoft in their respective amicus briefs.⁵⁹

After clarifying that the machine-or-transformation test was not the sole test for determining whether a process was patent-eligible, but rather a factor that could be considered, the Court indicated that the patent application at issue was correctly rejected because it represented an "abstract idea." The Court looked to precedent established in three previous patent cases to arrive at this conclusion. Gottschalk v. Benson and Parker v. Flook both involved petitioners attempting to patent a mathematical algorithm. In both cases, the Court reasoned that the algorithms at issue were

⁵³ *Id.* at 3227 (alteration in original) (quoting Diamond v. Chakrabarty, 447 U.S. 303, 315 (1980)).

⁵⁴ See Bilski, 130 S. Ct. at 3227.

⁵⁵ See id.

⁵⁶ See id. at 3228 ("With ever more people trying to innovate and thus seeking patent protections for their inventions, the patent law faces a great challenge in striking the balance between protecting inventors and not granting monopolies over procedures that others would discover by independent, creative application of general principles. Nothing in this opinion should be read to take a position on where that balance ought to be struck.").

⁵⁷ See id. ("[T]he Court today is not commenting on the patentability of any particular invention, let alone holding that any of the above-mentioned technologies from the Information Age should or should not receive patent protection.").

⁵⁸ See supra notes 3–4, 8–9 and accompanying text.

⁵⁹ See Lohr, supra note 8.

⁶⁰ *Bilski*, 130 S. Ct. at 3229–30.

⁶¹ *Id.* (discussing the rulings in Diamond v. Diehr, 450 U.S. 175 (1980), Parker v. Flook, 437 U.S. 584 (1978), and Gottschalk v. Benson, 409 U.S. 63 (1972)).

⁶² See id. at 3230.

abstract ideas and not processes.⁶³ On the other hand, in Diamond v. Diehr, the Court held that the patent application in question was in fact a process, because though it included a mathematical formula, it used the mathematical formula to "mold[] raw, uncured synthetic rubber into cured precision products," and the Court considered this a tangible result that met the requirements of Section 101.⁶⁴ Applying the principles from the three cases above, the Court concluded that Bilski and Warsaw's claims were more like the algorithms from Benson and Flook, and were thus unpatentable abstract ideas.⁶⁵

All nine justices agreed that the patent examiner correctly denied Bilski's application to patent a method of hedging risk in commodities trading. 66 Justice Kennedy wrote the opinion and was joined in full by Chief Justice Roberts and Justices Thomas and Alito.⁶⁷ Justice Stevens wrote a concurrence joined by Justices Ginsburg, Breyer, and Sotomayor.⁶⁸ These justices agreed that the machine-or-transformation test was not the sole test for determining whether a process was patent-eligible under Section 101, but indicated that they did not believe business methods should be patent-eligible under any circumstances.⁶⁹

Justice Breyer, joined in part by Justice Scalia, filed a separate concurrence.⁷⁰ Though the latter Justice did not join with the former's view that business methods were not patent-eligible,⁷¹ the two did find common ground in Justice Breyer's highlighting of four substantive points. 72 First, though Section 101 is broad, Justice Breyer wrote that "it is not without

⁶³ See id. ("The Court [in Benson] then held the application at issue was not a 'process,' but an unpatentable abstract idea Flook stands for the proposition that the prohibition against patenting abstract ideas 'cannot be circumvented by attempting to limit the use of the formula to a particular technological environment' or adding 'insignificant postsolution activity." (quoting *Diehr*, 450 U.S. at 191–92)).

⁶⁴ *Id.* ("Diehr explained that while an abstract idea, law of nature, or mathematical formula could not be patented, 'an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection." (quoting Diehr, 450 U.S. at 187)).

⁶⁵ See id. at 3231.

⁶⁶ Bilski, 130 S. Ct. at 3230 ("[A]II members of the Court agree that the patent application at issue here falls outside of § 101 because it claims an abstract idea.").

⁶⁷ *Id.* at 3223.

⁶⁸ *Id*.

⁶⁹ See id. at 3232 ("More precisely, although a process is not patent-ineligible simply because it is useful for conducting business, a claim that merely describes a method of doing business does not qualify as a 'process' under § 101.").

¹⁰ *Id.* at 3223.

⁷¹ *Id.* at 3257.

⁷² Bilski, 130 S. Ct. at 3258–59.

limit."⁷³ Second, he noted that the machine-or-transformation test has repeatedly helped the Supreme Court decide what a patentable process is.⁷⁴ Third, Breyer observed that, "while the machine-or-transformation test has always been a 'useful and important clue,' it has never been the 'sole test' for determining patentability."⁷⁵ Fourth, Breyer asserted that the Court's decision cannot be read as reviving the discredited patentability test of whether a process produces "a useful, concrete, and tangible result."⁷⁶

With the Justices offering so many views on the matter, no one opinion carried the majority of the Court. The only point on which all Justices could agree was that Bilski and Warsaw's patent application should be denied.

II. ANALYSIS

A. The Bilski Holding

The Court rejected adopting a categorical rule that would exclude patenting business methods. Bilski, however, seemed to provide no new guidance or test for determining whether a process or method may be patented under Section 101. The question arises, therefore, as to whether Bilski actually changed anything, or whether it simply reiterated the law as it existed. Going forward, it seems as though the patent eligibility of all such new processes will be determined on a case-by-case basis under this Supreme Court precedent, which provides little substantive guidance for analyzing the difficult grey areas in the arena of patent law.

Bilski holds that the machine-or-transformation test is an important clue, but not the exclusive test for deciding if new processes or methods are patentable. Although *Bilski* does not preclude the patentability of all business methods in the future, the decision does indicate that business methods like the one brought by Bilski will not be approved. Adding to the uncertainty was the insistence of four Justices who stated that business

⁷³ *Id.* at 3258.

⁷⁴ *Id*.

⁷⁵ *Id*.

⁷⁶ *Id.* at 3259 (quoting State St. Bank & Trust Co. v. Signature Fin. Grp., 149 F.3d 1368 (Fed. Cir. 1998)) ("[I]n reemphasizing that the machine-or-transformation test is not necessarily the sole test of patentability, the Court intends neither to deemphasize the test's usefulness, nor to suggest that many patentable processes lie beyond its reach.").

⁷⁷ *Id.* at 3231.

⁷⁸ *Bilski*, 130 S. Ct. at 3231.

methods are not patentable at all⁷⁹—though of those four, Justice Stevens has since retired.⁸⁰ Finally, there remains no clear agreement as to how the statutory language in Section 101 should be interpreted.⁸¹

B. Other Cases That Implicate Bilski

1. Prometheus Laboratories, Inc. v. Mayo Collaborative Services: *Applying the* Bilski *Holding*

In one of the first cases to be reviewed after the Supreme Court's holding in *Bilski*, the CAFC reviewed a case returned to them on remand from the Supreme Court. ⁸² The Supreme Court remanded the case so that the CAFC could consider the issue by taking into account the *Bilski* decision. ⁸³

At issue in *Prometheus* were patents "which claim methods for determining the optimal dosage of thiopurine drugs used to treat gastrointestinal and non-gastrointestinal autoimmune diseases." At the trial level, the district court found that "the claims have three steps: (1) administering the drug to a subject, (2) determining metabolite levels, and (3) being warned that an adjustment in dosage may be required." The district court indicated that simply because the inventors described the claims as "treatment methods," this did not make them "patent-eligible subject matter." In particular, the district court found that the first two steps were "merely necessary data-gathering steps for any use of the correlations." The third step, the district court stated, was "only a mental step." In concluding that the claims were not patent-eligible, the district court found that the third "warning" step was not really a step at all, because "it was the metabolite levels themselves that 'warn' the doctor that an adjustment in dosage may be required."

⁷⁹ See id. at 3223.

⁸⁰ See Bill Mears, Court Ends Term, Offering Tributes to Stevens, CNN JUSTICE (June 28, 2010), http://articles.cnn.com/2010-06-28/justice/us.scotus.stevens_1_court-ends-ter m-chief-justice-john-roberts-supreme-court? s=PM:CRIME.

⁸¹ *Bilski*, 130 S. Ct. at 3231.

⁸² See Prometheus Labs., Inc. v. Mayo Collaborative Servs., 628 F.3d 1347, 1349 (Fed. Cir. 2010).

⁸³ *Id*.

⁸⁴ *Id.* at 1349–50.

⁸⁵ *Id.* at 1352.

⁸⁶ *Id*.

⁸⁷ *Id*.

⁸⁸ *Prometheus Labs.*, 628 F.3d at 1352.

⁸⁹ Id

Regarding its first *Prometheus* opinion, issued prior to the *Bilski* holding, the CAFC explained its rejection of the district court's findings by stating:

We held that the district court erred as a matter of law in finding Prometheus's asserted medical treatment claims to be drawn to non-statutory subject matter under this court's machine-or-transformation test, which we had held in *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008), to be the definitive test for determining the patentability of a process under § 101.⁹⁰

In other words, in its initial *Prometheus* decision vacated by the Supreme Court after *Bilski*, the CAFC had indicated that the claims were valid under the machine-or-transformation test. ⁹¹

Importantly, the Supreme Court acknowledged the CAFC's *Prometheus* holding, and remanded the case in light of its *Bilski* decision. ⁹² In *Bilski*, the Court indicated that "laws of nature, physical phenomena, and abstract ideas" have been held not patentable. ⁹³ Applications of these three categories, however, might qualify for a patent. ⁹⁴ The CAFC had to decide, therefore, whether the claims in *Prometheus* attempted to patent a natural phenomenon, or if the claims represented instead an application of that phenomenon. ⁹⁵ The CAFC affirmed its previous holding, taking into account the Supreme Court's conclusion in *Bilski*. ⁹⁶

The CAFC stated that "[t]he Supreme Court's decision in *Bilski* did not undermine our preemption analysis of Prometheus's claims and it rejected the machine-or-transformation test only as a definitive test." Therefore, because the Supreme Court left the preemption analysis untouched, this language from the CAFC demonstrates the limitations of the holding in *Bilski*. Perhaps a reason the Supreme Court granted certiorari in *Bilski* was to confirm what many already believed: *Bilski* did not significantly alter the landscape of patent-eligible claims.

⁹¹ Kevin E. Noonan, Prometheus Laboratories, Inc. v. Mayo Collaborative Services *(Fed. Cir. 2010)*, PATENT DOCS (Dec. 20, 2010, 11:59 PM), http://www.patentdocs.org/2 010/12/prometheus-laboratories-inc-v-mayo-collaborative-services-fed-cir-2010.html.

⁹⁰ *Id*. at 1349.

⁹² *Prometheus Labs.*, 628 F.3d at 1349.

⁹³ Bilski v. Kappos, 130 S. Ct. 3218, 3225 (2010).

⁹⁴ See id. at 3229–30.

⁹⁵ Prometheus Labs., 628 F.3d at 1354.

⁹⁶ *Id.* at 1349.

⁹⁷ *Id.* at 1355.

The CAFC succinctly summarized in Prometheus exactly what the Supreme Court accomplished in Bilski. 98 The CAFC wrote: "The [Supreme] Court merely stated that the Court of Appeals incorrectly concluded that this Court has endorsed the machine-or-transformation test as the exclusive test."99 Some commentators have argued that the real mandate from the Supreme Court in Bilski was to signal to the CAFC a need to develop and refine their case law regarding what constitutes an "abstract idea" for patent-eligibility. 100

Finally, the CAFC indicated that Prometheus's claims satisfied the transformation prong of the machine-or-transformation test, because their invention transforms the human body and its components after the concentrations are determined and the drugs are administered. 101 Because the claims independently satisfied the transformation prong of the machine-ortransformation test, the CAFC did not need to assess whether they constituted a machine. 102 The CAFC, possibly supplementing its definition of patent-eligible claims, indicated that "[t]he asserted claims are in effect claims to methods of treatment, which are always transformative when one of a defined group of drugs is administered to the body to ameliorate the effects of an undesired condition."103

⁹⁸ Id.

⁹⁹ Id. at 1355. The Court of Appeals added: "Thus, the Court did not disavow the machine-or-transformation test. And, as applied to the present claims, the 'useful and important clue, an investigative tool,' leads to a clear and compelling conclusion, viz., that the present claims pass muster under § 101. They do not encompass laws of nature or preempt natural correlations." Id.

¹⁰⁰ See Noonan, supra note 91 ("Such an approach has the potential to adequately (or at least sufficiently) illuminate the relevant principles in the fire of litigation, to provide a collection of decisions that might assist the Court when (and if) it decides to reenter the patent-eligibility waters. The Court in Bilski was properly prudent in its approach with regard to 'new technologies'"); see also Jason Rantenen, Prometheus Laboratories v. Mayo: The Broad Scope of Statutory Subject Matter, PATENTLY-O (Dec. 22, 2010, 7:30 AM), http://www.patentlyo.com/patent/2010/12/prometheus-laboratories-v-mayo-the-bro ad-scope-of-statutory-subject-matter.html ("Furthermore, the court stated, neither the Supreme Court's order to vacate and remand the original Prometheus decision nor Bilski dictates a wholly different analysis or different result In support of its conclusion, the court reiterated its earlier determination that the treatment methods in Prometheus's patents satisfy the 'machine-or-transformation test.' Although this is not the exclusive test, post-Bilski, it nevertheless provides important clues to subject matter patentabil-[i]ty.").

101 Prometheus Labs., 628 F.3d at 1355.

¹⁰² *Id.* at 1356.

¹⁰³ *Id.* ("More specifically, Prometheus here claimed methods for optimizing efficacy and reducing toxicity of treatment regimes for gastrointestinal and non-gastrointestinal autoimmune diseases that utilize drugs providing 6-TG by administering a drug to a

By affirming their pre-*Bilski* decision in *Prometheus*, the CAFC thus confirmed the very narrow holding of *Bilski*, which established that the machine-or-transformation test is not the exclusive test for determining patent eligibility. The CAFC took its cue from the Supreme Court, and continued to develop case law regarding the patent eligibility of abstract ideas. Without citing any cases, the CAFC stated that when a claim involves a group of drugs that are administered to cure an illness, these claims are always classified as transformative. ¹⁰⁴

If *Prometheus* is any indication of the types of patent eligibility opinions we will see from the CAFC going forward, the court will continue to generate more detailed and nuanced case law regarding the patent eligibility of abstract ideas. The CAFC, while making decisions on a case-by-case basis, should also articulate rules whenever possible, as it did in *Prometheus*.

Another case, *Research Corporation Technologies v. Microsoft*, was also decided by the CAFC shortly after *Bilski*, and similarly progressed the case law regarding process patents. ¹⁰⁵

2. Research Corporation Technologies v. Microsoft: *Refocusing the Eligibility Inquiry*

In *Research Corporation*, the CAFC reviewed a pre-*Bilski* decision of the United States District Court for the District of Arizona, which had held that two of Research Corporation Technologies' (RCT) patents were ineligible because they did not satisfy the machine-or-transformation test, and therefore that the defendant, Microsoft, had not infringed upon them. ¹⁰⁶ RCT's patents, said the district court, "relate to digital image halftoning. Digital images are, in fact, thousands of pixels arranged in arrays of rows and columns." ¹⁰⁷ Essentially, the district court determined that RCT's patents created a different type of halftoning called a "blue noise mask."

Referring to *Bilski*, the CAFC indicated that "[i]n refocusing the eligibility inquiry on the statute, the Supreme Court advised that [S]ection 101 eligibility should not become a substitute for a patentability analysis relat-

subject. The invention's purpose to treat the human body is made clear in the specification and the preambles of the asserted claims.").

¹⁰⁴ See id.

¹⁰⁵ Research Corp. Techs. v. Microsoft, 627 F.3d 859 (Fed. Cir. 2010).

¹⁰⁶ See id. at 866.

¹⁰⁷ *Id.* at 862–63.

¹⁰⁸ *Id.* at 863 ("Another way to observe the quality of a halftone is to use a power spectrum associated with each dot profile obtained from the halftoning process.").

ed to prior art, adequate disclosure, or the other conditions and requirements of Title 35."¹⁰⁹ The CAFC then classified the subject matter in the case at bar as the process for rending a halftone image. Then, the court specifically acknowledged that the Supreme Court had directed it to explore more deeply and define the question of whether a given subject matter is abstract, along with rejecting an inflexible singular test. As such, the CAFC declined to provide a rigid test, deciding only that, for a process to be patented, it must "override the broad statutory categories of eligible subject matter."

The CAFC acknowledged that algorithms and formulas constituted a significant portion of the claims and stated that the "patents require a 'high contrast film,' 'a film printer,' 'a memory,' and 'printer and display devices'" in confirming that the patents were in fact not abstract. The CAFC, therefore, determined that even when significant equations or algorithms exist in a patent, if the patent also contains tangible devices, it will generally be protected from falling into the abstract category. It is unclear as to what the ratio of mathematical equations to tangible devices should be; however, this decision suggests that if a patent contains even a small number of tangible devices, that factor will save it from the "abstract" label.

Some legal professionals claimed that the holding in *Research Corporation* "places a high hurdle in front of challengers who seek to invalidate process patents on the third ground [abstract idea]." Indeed, it does seem as though the bar is set high. Tough questions for the CAFC will involve scenarios that fall somewhere in between *Bilski* and *Research Corporation*. *Research Corporation* and *Prometheus* affirmed that the CAFC is going to determine which particular set of facts gives rise to patent eligibility on a case-by-case basis. These are two of the first post-*Bilski* cases, and they indicate that the CAFC is committed to developing the scope of abstractness under Section 101.

¹⁰⁹ *Id.* at 868 ("In other words, [S]ection 101 does not permit a court to reject subject matter categorically because it finds that a claim is not worthy of a patent.").

¹¹¹ Research Corp., 627 F.3d at 868 ("The Supreme Court did not presume to provide a rigid formula or definition for abstractness.").

J12 Id. ("With that guidance, this court also will not presume to define 'abstract' beyond the recognition that this disqualifying characteristic should exhibit itself so manifestly as to override the broad statutory categories of eligible subject matter and the statutory context that directs primary attention on the patentability criteria of the rest of the Patent Act.").

¹¹³ *Id.* at 869.

¹¹⁴ Rantenen, *supra* note 100.

This Note will proceed to discuss why the Supreme Court correctly decided *Bilski*, but it will also address problems associated with the *Bilski* holding.

III. WHY THE SUPREME COURT CORRECTLY DECIDED BILSKI

The Supreme Court correctly decided to issue a narrow holding in *Bilski* when it rejected adopting a categorical rule that would exclude patenting business methods. Even though *Bilski* concerned patenteligibility, at the heart of the case was the issue of abstractness and how the CAFC could better define aspects of a process that would invalidate a patent. 116

A. Practical Concerns with Issuing a Broad Holding

If the Supreme Court had issued a broad holding in *Bilski* invalidating all business method patents, the decision could have potentially negatively affected the national economy, because many large businesses hold business method patents. ¹¹⁷ Conversely, had the Supreme Court issued a broad holding in the other direction to allow all forms of business methods, almost anything could then have been patented. In its amicus brief, IBM argued that patent-eligible subject matter for processes should be limited to processes that involve technological contributions. ¹¹⁸ IBM, and others advancing that argument, seemed to be in line with the Court's ruling.

The concern with invalidating all business method patents, "such as software, biomarkers, medical diagnostics and information technology," was the "concern that many patent portfolios that have been developed in these fields, at considerable time and expense, [and] may not have future value, or greatly diminished future value." This diminished value could

¹¹⁵ Bilski v. Kappos, 130 S. Ct. 3218, 3229 (2010).

¹¹⁶ See supra note 100 and accompanying text.

¹¹⁷ See supra notes 3–4 and accompanying text.

¹¹⁸ Brief for Int'l Bus. Mach. Corp. as Amicus Curiae in Support of Neither Party at 2–3, *Bilski*, 130 S. Ct. 3218 (No. 08-964) ("IBM respectfully submits that the gravamen of that precedent, as informed by the constitutional objective of 'promot[ing] the Progress of Science and useful Arts,' is that a patentable 'process' within the meaning of § 101 is one that involves a technological contribution - namely, a process that either (i) is tied to a particular machine or apparatus, or (ii) causes transformation or reduction of an article to a different state or thing, and in either instance produces technologically beneficial results.").

¹¹⁹ Stuart S. Levy, Bilski v. Kappos: *New Vista or End of the Road for Many Business Methods and New Technologies?*, 79 PAT., TRADEMARK & COPYRIGHT J. (BNA) 283, at 12 (Jan. 15, 2010).

potentially negatively affect the many companies that hold patents in "established or emerging technologies." While many amicus briefs were not in favor of either party, of the sixty-six amicus briefs filed for the *Bilski* Supreme Court case, sixty-one argued that the machine-or-transformation test should not be the sole test for patent-eligible subject matter. 121

Taking into account Supreme Court precedent, Congressional intent, and practical concerns, this was the holding that made the most sense for the Supreme Court to issue. In particular, a broad ruling from the Supreme Court would have been unwise given the presence of the CAFC, as that court's specialization in patent cases leaves it much better equipped to create case law upon the presentation of patent claims. 122

B. The Court of Appeals for the Federal Circuit Is in a Better Position to Make the Close Calls

The CAFC is "unique among the thirteen Circuit Courts of Appeals," leave that exclusive jurisdiction over patent claims nationwide. With these claims appealed only to the CAFC, its judges are particularly familiar with such cases. leave the cases that is much more responsible for the Supreme Court to accept review when the CAFC has issued a holding that the Supreme Court feels needs clarification, rather than simply issuing a broad ruling in an area that is not its specialty. For these reasons, the CAFC is in a much better position to develop patent case law.

Currently in its twenty-ninth year of existence, "the CAFC has steadily gained momentum, maturity, and acceptance." The CAFC was created in the late 1970s in order to remedy "a faltering patent enforcement system that threatened further industrial, technological, employment, and economic decline." While the CAFC does not exclusively hear patent cases, about one third of the cases the court decides every year are patent cases,

¹²⁰ *Id*.

 $^{^{121}}$ Id

¹²² See infra notes 123–24 and accompanying text.

¹²³ Court Jurisdiction, U.S. COURT OF APPEALS FOR THE FED. CIRCUIT, http://www.ca fc.uscourts.gov/the-court/court-jurisdiction.html (last visited Mar. 25, 2012) ("It has nationwide jurisdiction in a variety of subject areas, including international trade, government contracts, patents, trademarks, certain money claims against the United States government, federal personnel, veterans' benefits, and public safety officers' benefits claims.").

 $^{^{124}}$ Id.

¹²⁵ Paul R. Michel, *Past, Present, and Future in the Life of the U.S. Court of Appeals for the Federal Circuit*, 59 Am. U. L. REV. 1199, 1199 (2010).

¹²⁶ Id. at 1200.

and at least five of the sixteen judges presently on the court were patent attorneys before appointment to the bench. Typically, a panel of judges hearing any given case will be composed of one or two judges with a patent background and one or two judges without a patent background. Additionally, all of the judges of the CAFC are required to live in Washington, D.C. As former Chief Judge Michel has written: "Some consider our court the technology court—and so it is. But it is also the business and commerce court, the innovation court, and the job-creating, prosperity-expanding court. It is, in short, a national asset." 130

The CAFC possesses a level of experience in deciding patent appeals cases and developing patent law that is unmatched in the other circuits. The Supreme Court correctly issued a narrow holding in *Bilski*, allowing the CAFC to establish clearer patent-eligibility requirements in light of the Supreme Court's decision that the machine-or-transformation test is not the sole method for determining patent eligibility. As seen from decisions such as *Prometheus* and *Research Corporation*, it is in the CAFC where a body of nuanced and meaningful patent eligibility law can and should be developed.

C. Problems Caused by the Holding in Bilski

One of the major problems with the holding in *Bilski* is that it encourages litigation to determine whether a specific patent qualifies as abstract. Specifically, by the Supreme Court's unspoken directive to the CAFC to further develop its case law, the Supreme Court's *Bilski* decision will likely give rise to increased process patent litigation.

Senator Patrick Leahy of Vermont is an outspoken critic of the *Bilski* holding.¹³¹ Senator Leahy has claimed that *Bilski* did not resolve the "real issue with business method patents," and that it could spawn unnecessary

¹²⁸ *Id.* at 1201–02.

¹²⁷ *Id.* at 1201.

¹²⁹ *Id.* at 1203 ("This proximity helps newer judges learn the many unfamiliar legal subjects they must master. It also helps all of our active judges work together more closely, collegially, and continually than if the twelve were geographically dispersed across twelve different states. It should be noted that a proposal to revise the patent laws now pending in the Senate would rescind this residency requirement. Proponents, which include several of our judges, cite the symbolic benefit of judges of a national court having nationwide residency and the practical benefit of an even larger talent pool.").

¹³⁰ Michel, *supra* note 125, at 1211.

¹³¹ Jessica Dye, *Leahy Says Bilski Exemplifies Patent Law Problems*, LAW 360 (June 28, 2010, 3:12 PM), http://www.law360.com/topnews/articles/177772/leahy-says-bilski-exemplifies-patent-law-problems.

litigation unless Congress acts.¹³² Leahy has suggested that "[t]he Court's opinion, joined by only five of the justices, needlessly left the door open for business method patents to issue in the future, and I am concerned that it will lead to more unnecessary litigation."¹³³ While unnecessary litigation is a valid concern and is often undesirable, it is more favorable than issuing a broader holding that may significantly affect the United States economy in a negative way.

Recently, the Senate passed a patent reform bill called the America Invents Act (the Act), 134 which President Barack Obama signed into law on September 16, 2011. 135 The Act did not include language affecting the Supreme Court's holding in *Bilski*; rather, it called for a first-to-file patent system, thus constituting a significant change from the United States' current first-to-invent system. 136 Senator Leahy, the main sponsor of the Act, declared that "[t]he America Invents Act will promote American innovation, create American jobs and grow America's economy, all without spending a penny of taxpayer money." 137 The Act's lack of reference to *Bilski*, meanwhile, indicates that Congress will likely not respond to that Supreme Court decision, instead allowing the CAFC to formulate its own law regarding tests for patent eligibility.

CONCLUSION

The *Bilski* case created much speculation as to both the future of business method patents and the impact of a broad holding on commerce in the United States. The Supreme Court's decision to issue a narrow holding, which simply determined that the machine-or-transformation test is not the exclusive test for patent eligibility, ¹³⁸ left open the possibility for business method patents to withstand future challenges.

By its holding, the Court sent a message to the CAFC to refine and develop its case law regarding abstractness as it relates to patent eligibility. In the cases following *Bilski*, the CAFC seemed to acknowledge this message. While a bright-line rule such as the machine-or-transformation test

¹³² *Id*.

¹³³ Id.

Hayley Tsukayama, *The Circuit: Senate Passes Patent Reform, Hearing on Net Neutrality, Europe Grapples with Cookie Law*, WASH. POST (Mar. 9, 2011, 8:45 AM), http://voices.washingtonpost.com/posttech/2011/03/the circuit senate passes pate.html.

¹³⁵ Obama Signs Patent Reform Bill, CNN POLITICS (Sept. 16, 2011, 12:02 PM), http://www.cnn.com/2011/POLITICS/09/16/obama.patent.reform/.

¹³⁶ See id.; see also Tsukayama, supra note 134.

¹³⁷ Tsukayama, *supra* note 134.

¹³⁸ See supra note 12 and accompanying text.

can be beneficial in various circumstances, the Supreme Court correctly decided the scope of *Bilski*, because a subject as complex as patent eligibility requires a nuanced approach supported by case law that evolves as technology changes. As the nature of technology remains a fluid concept, it is proper for the laws that govern this field to be able to adapt with the changing circumstances.

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