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Intellectual Property—Patents: The United States Supreme Court Clarifies the Test for Patent Eligibility of Processes

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INTELLECTUAL PROPERTY—PATENTS:
THE UNITED STATES SUPREME COURT CLARIFIES THE
TEST FOR PATENT ELIGIBILITY OF PROCESSES
Bilski v. Kappos, 130 S. Ct. 3218 (2010)

ABSTRACT

In *Bilski v. Kappos*, the United States Supreme Court clarified the threshold test of patent eligibility under 35 U.S.C. § 101, holding the machine-or-transformation test was not the sole test to determine whether a process invention was eligible for patent. The machine-or-transformation test is an important and useful clue in determining whether a process invention is patent eligible, but should not be used as a bright-line test. The Court interpreted the statutory language of “process” with its ordinary, contemporary, and common meaning, which did not require a tie to a machine or transformation of an article, and the Court thus concluded the machine-or-transformation test could not be the sole test of patent eligibility for processes.

The Court further held 35 U.S.C. § 101 similarly did not preclude business methods from being patent eligible as processes. Because “method” may include methods of doing business—as there is no ordinary, contemporary, and common meaning of “method” that excludes business methods—and federal law explicitly contemplates the existence of some business method patents in a defense to patent infringement within 35 U.S.C. § 273(b)(1), business methods are not precluded under § 101 from patent eligibility. Nonetheless, the Court concluded the claimed invention was not patent eligible because it was an abstract idea. *Bilski* attempted to bring clarity to the determination of patent eligibility for processes, but the decision may have made the patent eligibility determination more nebulous.

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I. FACTS

Bernard Bilski and Rand Warsaw developed a method of hedging the consumption risk associated with selling a commodity at a fixed price for a given period.¹ Bilski and Warsaw's method of hedging was particularly useful with energy commodities such as natural gas, electricity, and coal because the method included ways to compensate for weather conditions.² For example, Bilski and Warsaw's hedging method can be illustrated with

1. *Bilski v. Kappos*, 130 S. Ct. 3218, 3223 (2010). See also Brief for Petitioners at 3, *Bilski*, 130 S. Ct. 3218 (2010) (No. 08-964) (explaining the developed method of hedging).

2. Brief for Petitioners, *supra* note 1, at 3.

the relationship of coal power plants and coal mining companies.³ Coal power plants purchase coal to produce electricity and are opposed to an increase in demand for coal because such an increase would affect costs.⁴ Coal mining companies are averse to a sudden drop in demand for coal because such a drop would reduce sales and depress prices.⁵ The method of hedging developed by Bilski and Warsaw placed an intermediary to sell coal to power plants at a fixed price and purchase coal from mining companies at a second fixed price.⁶ Both coal power plants and mining companies are isolated and protected against risk of price fluctuation while the intermediary commodity provider has hedged its risk.⁷ If demand and price spike, the intermediary has sold coal at a disadvantageous price but has bought coal at an advantageous price, and vice versa if demand and price fall.⁸ Bilski and Warsaw's hedging method was not limited to actual commodities and was applicable beyond the energy market.⁹

Bilski and Warsaw filed an application to patent the hedging method with the United States Patent and Trademark Office (USPTO) on April 10, 1997.¹⁰ The patent application included eleven claims describing the hedging method; claims one and four were prominent.¹¹ Claim one

3. *In re Bilski*, 545 F.3d 943, 949 (Fed. Cir. 2008).

4. *Id.*

5. *Id.*

6. *Id.* at 949-50. The process for fixing prices is not a simple process. Brief for Petitioners, *supra* note 1, at 3-4. Under the hedging method, fixed bill prices, accounting for weather fluctuations, are determined as follows:

$$\text{Fixed Bill Price} = F_i + [(C_i + T_i + LD_i) \times (1 + E(W_i))] \text{ Wherein,}$$

F_i = fixed costs in period i ;

C_i = variable commodity costs in period i ;

T_i = variable long distance transportation costs in period i ;

LD_i = variable local delivery cost in period i ;

In this equations, $1 + E(W_i)$ represents the approximation of the amount of consumption driven by the weather, which is estimated with a least squares statistical model based on historical averages.

Id.

7. *In re Bilski*, 545 F.3d at 950.

8. *Id.*

9. *Id.*

10. *Id.*; see also Energy Risk Management Method Patent Application 08/833,892.

11. *Bilski v. Kappos*, 130 S. Ct. 3218, 3223 (2010). Claim one of the patent application, describing the determination of the fixed price for an energy consumer, stated:

A method for managing the consumption risk costs of a commodity sold by a commodity provider at a fixed price comprising the steps of:

(a) initiating a series of transactions between said commodity provider and consumers of said commodity wherein said consumers purchase said commodity at a fixed rate based upon historical averages, said fixed rate corresponding to a risk position of said consumer;

(b) identifying market participants for said commodity having a counter-risk position to said consumers; and

described a series of steps instructing for hedging risk, and claim four articulated the concept of claim one as a mathematical formula.¹² The USPTO examiner rejected the patent application because “the [hedging method] 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.”¹³ The USPTO examiner further explained the method was an abstract idea, a mathematical algorithm that did not fall within the technological arts.¹⁴

Bilski and Warsaw appealed the examiner’s rejection for patent protection to the Board of Patent Appeals and Interferences (Board).¹⁵ On appeal, Bilski and Warsaw argued there was no requirement, or statute that specified, a specific apparatus upon which the method must be performed or that a specific apparatus be specified when claiming a method.¹⁶ The Board

(c) initiating a series of transactions between said commodity provider and said market participants at a second fixed rate such that said series of market participant transactions balances the risk position of said series of consumer transactions.

Brief for Petitioners, *supra* note 1, at 7. Claim four of the patent application, describing the mathematical formula to derive claim one, stated:

A method for managing weather-related energy price risk costs sold by an energy provider at a fixed price comprising the steps of:

(a) initiating a series of transactions between said energy provider and energy consumers wherein said energy consumers purchase energy at a fixed rate based upon historical averages, said fixed rate corresponding to a risk position of said consumers, wherein the fixed price for the consumer transaction is determined by the relationship:

$$\text{Fixed Bill Price} = F_i + [(C_i + T_i + LD_i) \times (+ E(W_i))] \text{ Wherein,}$$

F_i = fixed costs in period i ;

C_i = variable costs in period i ;

T_i = variable long distance transportation costs in period i ;

LD_i = variable local delivery cost in period i ;

$E(W_i)$ = estimated location-specific weather indicators in period i ;
and and are constants;

(b) identifying other energy market participants having a counter-risk position to said consumers; and

(c) initiating a series of transactions between said energy provider and said other energy market participants at a second fixed rate such that said series of transactions balances the risk position of said series of consumer transactions.

Brief for Petitioners, *supra* note 1, at 8.

12. *Bilski*, 130 S. Ct. at 3223. The remaining claims explained how claims one and four could be applied to reduce the risk associated with market fluctuation for energy suppliers and consumers. *Id.* at 3224. The Court focused on claims one and four because the remaining claims were dependent on the patent eligibility of these two claims. *Id.*

13. *Ex parte Bilski*, No. 2002-2257, 2006 Pat. App. LEXIS 51, at *3 (B.P.A.I. Sept. 26, 2006).

14. *Id.*

15. *Id.* at *1.

16. *Id.* at *64.

responded by acknowledging there was no requirement of process claims to recite the means for performing the steps, but concluded “the absence of any apparatus in [the] claims is evidence that [they] do not transform physical subject matter as a machine inherently would, and do not recite practical application of the ‘abstract idea.’”¹⁷ Bilski and Warsaw further argued the hedging method was patentable because it produced a “useful, concrete, and tangible result.”¹⁸ The Board rejected the argument and ultimately affirmed the decision of the USPTO examiner, holding transformation of “non-physical financial risks and legal liabilities of the commodity provider, the consumer, and the market participants” were non-statutory subject matter under 35 U.S.C. § 101.¹⁹ The Board also held Bilski and Warsaw’s claim “preempts any and every possible way of performing the steps of the [claimed process], by human or any kind of machine or by any combination thereof,” and thus was an abstract idea and not patent eligible.²⁰

Bilski and Warsaw appealed the decision of the Board to the United States Court of Appeals for the Federal Circuit.²¹ After oral arguments on October 1, 2007, the Federal Circuit Court of Appeals, on its own accord, granted a hearing en banc.²² In *In re Bilski*,²³ the court of appeals affirmed

17. *Id.*

18. *Id.* at *71. Bilski and Warsaw relied on *State Street Bank & Trust Co. v. Signature Financial Group* when arguing the hedging method produced a useful, concrete, and tangible result. *Id.* The Board rejected the argument because the holding in *State Street Bank & Trust* was limited to transformation of data by a machine. *Id.* at *72; *see also infra* note 165 and accompanying test (discussing Justice Breyer’s view the Court properly rejected the notion anything that produced a useful, concrete, and tangible result was eligible for patent protection).

19. *Id.* at *52-53. In a concurring opinion, Administrative Patent Judge McQuade noted “[t]he quest for a bright line test for determining whether a claimed invention embodies statutory subject matter under 35 U.S.C. § 101 is an exercise in futility.” *Id.* at *80. Judge McQuade advocated that determination of statutory subject matter under § 101 should focus on the claim as a whole, not the specific category—such as process, machine, manufacture, or composition of matter—to which the claim belongs. *Id.* at *81. This advancement thus supported an assessment of statutory subject matter on a case-by-case basis. *Id.* An examination of Bilski and Warsaw’s hedging method, with claim one at the core, “disembodied [a] business concept representing nothing more than a non-statutory abstract idea . . . and merely serve to superficially couch the appellants’ abstract idea in a method or process format.” *Id.* at *85.

20. *Id.* at *56.

21. *In re Bilski*, 264 F. App’x. 896, 896 (Fed. Cir. 2008).

22. *Id.* at 897. The court requested supplemental briefs by the parties to address the following questions:

- (1) Whether claim 1 of the . . . patent application claims patent-eligible subject matter under 35 U.S.C. §101?
- (2) What standard should govern in determining whether a process is patent-eligible subject matter under section 101?
- (3) Whether the claimed subject matter is not patent-eligible because it constitutes an abstract idea or mental process; when does a claim that contains both mental and physical steps create patent-eligible subject matter?
- (4) Whether a method or process must result in a physical transformation of an article or be tied to a machine to be patent-eligible subject matter under section 101?

the judgment of the Board.²⁴ On appeal, Bilski and Warsaw argued: (1) claim one of their patent application produced a useful, concrete, and tangible result, making it patent eligible under § 101, and (2) the “claimed process does not comprise only ‘steps that are totally or substantially practiced in the mind but clearly require physical activity which have a tangible result.’”²⁵ The court of appeals rejected Bilski and Warsaw’s arguments, stating the correct analysis was whether the claims met the requirements of the machine-or-transformation test, not whether “physical steps” were involved in the claimed process.²⁶ The court of appeals articulated the definitive test to determine “whether a process claim is tailored narrowly enough to encompass only a particular application of a fundamental principle rather than to pre-empt the principle itself” to be the machine-or-transformation test.²⁷ Under this test, a claimed process is patent eligible under § 101 if: “(1) it is tied to a particular machine or apparatus, or (2) if it transforms a particular article into a different state or thing.”²⁸ The court of appeals affirmed the Board’s decision and held Bilski and Warsaw’s hedging method did not transform any article to a different state or thing, but simply manipulated legal obligations, business risks, and other abstractions.²⁹ Because the method of hedging, as claimed, did not limit any step to a particular machine or apparatus and did not utilize transformation, the court of appeals held the claim failed the machine-or-transformation test and was thus not patent eligible under § 101.³⁰

(5) Whether it is appropriate to reconsider *State Street & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998), and *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352 (Fed. Cir. 1999), in this case and, if so, whether those cases should be overruled in any respect?

Id.

23. 545 F.3d 943 (Fed. Cir. 2008).

24. *Bilski*, 545 F.3d at 966.

25. *Id.* at 964.

26. *Id.*

27. *Id.* at 954.

28. *Id.* The court based the patent eligibility test for processes on: *Diamond v. Diehr*, 450 U.S. 175, 192 (1981) (holding the use of a mathematical formula in process transforming or reducing an article to a different state or thing constitutes patent-eligible subject matter); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978) (noting the “Court has 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”); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972) (“Transformation and reduction of an article, to a different state or thing, is the clue to the patentability of a process claim that does not include particular machines.”); and *Cochrane v. Deener*, 94 U.S. 780, 788 (1876) (“A process is . . . an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing.”).

29. *Bilski*, 545 F.3d at 963.

30. *Id.* at 964.

Bilski and Warsaw filed a petition for writ of certiorari, which the United States Supreme Court granted.³¹ The Supreme Court held the court of appeals incorrectly determined the machine-or-transformation test to be the sole test of patent eligibility of a process under § 101.³² Further, the Court held business methods, such as *Bilski* and Warsaw's hedging method, are not categorically excluded as patent eligible processes.³³ Nonetheless, the Court affirmed the decision of the court of appeals, holding the hedging process at issue was not patent eligible because it was an attempt to patent the use of abstract ideas.³⁴

II. LEGAL BACKGROUND

The decision of the United States Supreme Court in *Bilski v. Kappos*³⁵ articulated three distinct characteristics of patent eligibility for processes under § 101.³⁶ First, the test for determining patent eligibility of "processes" under § 101 is not solely the machine-or-transformation test.³⁷ Second, the term "process" in § 101 does not categorically exclude business methods.³⁸ Third, abstract ideas are not patent eligible.³⁹ The determination of patent eligibility is a threshold question that must be answered before any other aspects of the patent approval process can commence.⁴⁰

A. CONSTITUTIONAL AND STATUTORY LANGUAGE

The patent system in the United States antedates the founding of the country because the American colonies imported patent tradition from English law.⁴¹ Since the import of the English patent system to the United States, some features of the English system have been maintained while others have disappeared.⁴² The foundational beginning of the American patent system, and differentiation from English patent law, began with a Constitutional provision.⁴³

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

32. *Id.* at 3227.

33. *Id.* at 3228.

34. *Id.* at 3231.

35. 130 S. Ct. 3218 (2010).

36. *See* 35 U.S.C. § 101 (2006).

37. *Bilski*, 130 S. Ct. at 3227.

38. *Id.* at 3228.

39. *Id.* at 3230.

40. *Id.* at 3225.

41. MARTIN J. ADELMEN ET AL., PATENT LAW IN A NUT SHELL 1 (Thomson/West 2008).

42. *In re Bilski*, 545 F.3d 943, 968 (2008) (Dyk, J., concurring).

43. *Bilski*, 130 S. Ct. at 3242 (Stevens, J., concurring). At the Constitutional Convention, the clause granting patent powers to Congress was passed without objection. *Id.* Justice Stevens noted this pass without objection is striking because other proposed powers of Congress, such as

The United States Constitution grants Congress the power “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”⁴⁴ The preceding provision has given rise to both United States patent statutes and copyright statutes.⁴⁵ In 1790, Congress utilized the power given by the Constitution and enacted the first Patent Act.⁴⁶ The Patent Act of 1790 permitted patents of “any useful art, manufacture, engine, machine, or device, or any improvement therein not before known or used.”⁴⁷ The requirements for patent eligibility in the Patent Act of 1790 were largely based on features of the English patent system and reflected the English approach to patent eligibility at that time.⁴⁸

Amended in 1973, the 1790 Patent Act became the basis for current patent law in the United States.⁴⁹ The relevant section of the 1793 Patent Act to determine patent eligibility “stated a patent may be granted to any person or persons who ‘shall allege that he or they have invented any new and useful art, machine, manufacture or composition of matter, or any new and useful improvement on any art, machine, manufacture or composition of matter.’”⁵⁰ The language for determining patent eligibility of the 1793 Patent Act remained relatively unchanged until 1952, when the term “art”

the power to grant charters of incorporation, generated discussion about the fear of monopolies. *Id.* Some scholars suggest the passing of the clause granting patent power was without objection because of past experience with the English patent system. Robert P. Merges, *As Many as Six Impossible Patents Before Breakfast: Property Rights for Business Concepts and Patent System Reform*, 14 BERKELEY TECH. L.J. 577, 585 (1999) (discussing patent officers, judges, legislators, and inventors understood what patents were meant to protect); *see also* Graham v. John Deere Co. of Kan. City, 383 U.S. 1, 9 (1966) (discussing Thomas Jefferson’s observations about the scope of patentable subject matter).

44. U.S. CONST. art. 1, § 8, cl. 8.

45. ARTHUR H. SEIDEL, WHAT THE GENERAL PRACTITIONER SHOULD KNOW ABOUT PATENT LAW AND PRACTICE 1 (A.L.I. 1956). The patent statutes are within title 35 of the United States Code, and the copyright statutes are within title 17 of the United States Code. *Id.*

46. ADELMEN ET AL., *supra* note 41, at 19. *See generally* 1790 Patent Act, ch. 11, § 1, 1 Stat. 109, 110 (1790) (codified as amended at 35 U.S.C. §§ 100-105 (2006)).

47. *In re Bilski*, 545 F.3d 943, 967 n.3 (Fed. Cir. 2008) (Dyk, J., concurring) (quoting 1790 Patent Act, ch. 11, § 1, 1 Stat. 109, 110 (1790) (codified as amended at 35 U.S.C. §§ 100-105)).

48. *Id.* at 967.

49. *Id.* at 966.

50. *Id.* (quoting 1793 Patent Act, ch. 11, § 1 Stat. 318, 319 § 1 (1793) (codified as amended at 35 U.S.C. §§ 100-105)). Discussing the similarities between the 1793 Patent Act and English patent law, Judge Dyk noted:

Each of the five categories of patentable subject matter recognized by the 1793 Patent Act—(1) “manufacture,” (2) “machine,” (3) “composition of matter,” (4) “any new and useful improvement,” and (5) “art”—was drawn from the Statute of Monopolies and the common law refinement of its interpretation or resolved competing views being debated in England at the time.

Id. at 968-69.

was replaced with the term “process,” in § 101, with § 100(b) providing a definition of “process.”⁵¹

The current language of the Patent Act, in § 101, defines subject matter that may be patented: “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.”⁵² This section specifically provides four independent categories of inventions which are eligible for patent: (1) processes, (2) machines, (3) manufacturers, and (4) compositions of matter.⁵³ The term “process,” as used in § 101, is defined in § 100(b) as a “process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material.”⁵⁴ Determining the patent eligibility of a claimed process requires statutory interpretation beyond the definition in § 100(b).⁵⁵

B. UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

Congress created the Federal Circuit Court of Appeals in 1982 to address a lack of uniformity in the application of patent law and to increase predictability of patent cases.⁵⁶ The Federal Circuit Court of Appeals “consolidated all patent appeals from district courts across the country in a single court with exclusive subject matter jurisdiction over patent appeals from district courts and the [United States] Patent [and Trademark] Office.”⁵⁷ Thus, the Federal Circuit Court of Appeals is the exclusive appellate court for patent law cases after the administrative process.⁵⁸ In *South Corp. v. United States*,⁵⁹ the Federal Circuit adopted the decisions of its predecessor court, the United States Court of Customs and Patent Appeals, as precedent.⁶⁰

51. *Id.* at 966; *see* 35 U.S.C. §§ 100(b), 101.

52. 35 U.S.C. § 101. The language “subject to the conditions and requirements of this title” of § 101 includes fulfilling the requirements of novelty in § 102, nonobviousness in § 103, and a full and particular description in § 112. *Bilski v. Kappos*, 130 S. Ct. 3218, 3221 (2010).

53. *Bilski*, 130 S. Ct. at 3221. Of these four independent categories, *Bilski* and *Warsaw’s* hedging method is categorized as a process. *Id.* at 3225.

54. 35 U.S.C. § 100(b).

55. *See generally Bilski*, 130 S. Ct. at 3242-50 (Stevens, J., concurring) (describing historical evolution of the term process under 35 U.S.C. § 101).

56. *ADELMEN ET AL.*, *supra* note 41, at 22.

57. *Id.*

58. *Id.*

59. 690 F.2d 1368 (Fed. Cir. 1982).

60. *ADELMEN ET AL.*, *supra* note 41, at 22.

C. DETERMINING PATENT ELIGIBILITY OF PROCESSES

In *Bilski*, the United States Supreme Court analyzed: (1) the patent eligibility of processes when the claimed invention contains abstract ideas or mathematical algorithms,⁶¹ (2) the machine-or-transformation test as the sole test of patent eligibility under § 101,⁶² and (3) the categorical exclusion of business methods as patent eligible.⁶³ Since the 1952 amendment to the Patent Act, both the United States Supreme Court and the United States Court of Appeals for the Federal Circuit have construed the language of § 101 to determine patentability of processes.⁶⁴ In *Bilski*, the Court relied on *Gottschalk v. Benson*,⁶⁵ *Parker v. Flook*,⁶⁶ and *Diamond v. Diehr*⁶⁷ to reach the conclusion that *Bilski* and *Warsaw*'s claimed hedging method was not patent eligible as a process.⁶⁸

In *Gottschalk v. Benson*, the process at issue was a method of programming a general purpose digital computer to convert signals from binary-code decimal form into pure binary form.⁶⁹ The procedure used to accomplish the conversion was essentially an algorithm.⁷⁰ The method of conversion did not need to be completed on a particular computer and could even be performed without a computer.⁷¹ Thus, the method sought to be patented was essentially a patent of the algorithm itself.⁷² Because granting a patent for the method claimed in *Benson* would “wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm,” the Court reversed the judgment of the appellate court and refused to grant a patent.⁷³ The Court further concluded the decision did “not hold that no process patent could ever qualify if it did not meet the requirements of [being tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing].”⁷⁴ Instead,

61. *Bilski v. Kappos*, 130 S. Ct. 3218, 3230 (2010).

62. *Id.* at 3227.

63. *Id.* at 3228.

64. Elizabeth D. Lauzon, Annotation, *Construction and Application of Patent Act—United States Supreme Court Cases*, 27 A.L.R. FED. 2d 151, 169-70 (2010).

65. 409 U.S. 63 (1972).

66. 437 U.S. 584 (1978).

67. 450 U.S. 175 (1981).

68. *Bilski v. Kappos*, 130 S. Ct. 3218, 3231 (2010).

69. *Benson*, 409 U.S. at 73.

70. *Id.* at 65.

71. *Id.* at 67.

72. *Id.* at 71-72.

73. *Id.*

74. *Id.* at 71. The Court examined precedent for the proposition that a tie to a particular machine or an operation to change articles or material to a different state or thing has been suggested for patent eligibility of a process. *Id.* at 68-70. See, e.g., *The Telephone Cases*, 126 U.S. 1, 572-73 (1888) (holding the claim patent-eligible because it was for the use of electricity both for

“[t]ransformation and reduction of an article to a different state or thing is the clue to the patentability of a process claim that does not include particular machines.”⁷⁵

In *Parker v. Flook*, the Court considered “whether the identification of a limited category of useful, though conventional, post-solution applications of [a novel and useful mathematical] formula makes [a] method eligible for patent protection.”⁷⁶ The claimed method in *Flook* was one that updated alarm limits during catalytic conversion processes.⁷⁷ The only difference between conventional methods of changing alarm limits and the method at issue was the use of a mathematical algorithm to calculate an updated alarm-limit value.⁷⁸ The *Flook* Court held the process was not patent eligible under § 101, “not because it contains a mathematical algorithm as one component, but because once that algorithm is assumed to be within the prior art, the application, considered as a whole, contains no patentable invention.”⁷⁹ The Court further noted the discovery of a mathematical formula or phenomenon of nature cannot support a patent unless there is some other inventive concept in its application.⁸⁰ In *Benson*, the Court similarly noted “[p]henomena of nature . . . mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work.”⁸¹

Relying on its decisions in *Benson* and *Flook*, the Court affirmed the patent eligibility of a process for molding raw, uncured synthetic rubber into cured precision products in *Diamond v. Diehr*.⁸² In *Diehr*, the Court explained the nature of patentable processes, deferring to the language of *Cochrane v. Deener*,⁸³ as not dependent on a particular form of instrumentalities, but requiring that certain things be done to certain substances in a certain order, with the instruments to be used to complete such a process as

the magneto and variable resistance methods and was not one for all telephonic use of electricity); *Corning v. Burden*, 56 U.S. 252, 267-68 (1854) (stating “chemical process or physical acts which transform raw materials are . . . sufficiently definite to confine the patent monopoly within rather definite bounds”); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1877) (noting “a process may be patentable, irrespective of the particular form of the instrumentalities used . . . if the patent is not confined to [a] particular tool or machine, the use of others would be an infringement, the general process being the same”).

75. *Benson*, 409 U.S. at 70.

76. *Parker v. Flook*, 437 U.S. 584, 585 (1978).

77. *Id.*

78. *Id.* at 585-86.

79. *Id.* at 594.

80. *Id.*

81. *Gottschaltz v. Benson*, 409 U.S. 63, 67 (1972).

82. *Diamond v. Diehr*, 450 U.S. 175, 177 (1981).

83. 94 U.S. 780 (1877).

secondary.⁸⁴ Further, the Court noted an addition was made to this definition of a patentable process in *Benson*.⁸⁵ Although the process at issue in *Diehr* was dependent on an algorithm, similar to the inventions at issue in *Benson* and *Flook*, the Court concluded the claimed process was patent eligible because the process involved the transformation of raw, uncured synthetic rubber into a different article.⁸⁶ The inclusion of an algorithm did not pre-empt a claimed process from patent eligibility.⁸⁷ Unlike the processes at issue in *Benson* and *Flook*, the process at issue in *Diehr* was an attempt to receive patent protection for a process of curing synthetic rubber.⁸⁸

III. ANALYSIS

The issue presented in *Bilski* turned on “whether a patent can be issued for a claimed invention designed for the business world.”⁸⁹ To determine whether *Bilski* and *Warsaw*’s invention was eligible for patent, the Court needed to decide whether the machine-or-transformation test was the sole test for determining the patent eligibility of a process under the Patent Act.⁹⁰ The Court addressed three main arguments the government offered to support the conclusion the invention in question was not patent eligible:

84. *Diehr*, 450 U.S. at 184. Specifically, the *Deener* Court explained the nature of a patentable process:

That a process may be patentable, irrespective of the particular form of instrumentalities used, cannot be disputed. . . . A process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject matter to be transformed and reduced to a different state or thing. If new and useful, it is just as patentable as is a piece of machinery. In the language of the patent law, it is an art. The machinery pointed out as suitable to perform the process may or may not be patentable; whilst the process itself may be altogether new, and produce an entirely new result. The process requires that certain things should be done with certain substances, and in certain order; but the tools to be used in doing this may be of a secondary consequence.

Deener, 94 U.S. at 787-88. Although the term “process” was not added to 35 U.S.C. § 101 until 1952, a “process” received patent protection prior to 1952 because it was considered a form of “art,” which was the term in the 1793 Patent Act. See *Corning v. Burden*, 56 U.S. 252, 267-68 (1854).

85. *Diehr*, 450 U.S. at 184. In *Benson*, when the Court described the nature of patent eligibility of processes, it added the transformation and reduction of an article to a different state or things is the clue to patent eligibility of a process that does not include a particular machine. *Benson*, 409 U.S. at 70.

86. *Diehr*, 450 U.S. at 184.

87. *Id.* at 185. In *Parker v. Flook*, the Court also stated “a process is not unpatentable simply because it contains a law of nature or a mathematical algorithm.” *Parker v. Flook*, 437 U.S. 584, 590 (1978).

88. *Diehr*, 450 U.S. at 187.

89. *Bilski v. Kappos*, 130 S. Ct. 3218, 3223 (2010).

90. *Id.* “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.” 35 U.S.C. § 101 (2006).

(1) the hedging method did not meet the requirements of the machine-or-transformation test and thus was not patent eligible as a process, (2) the hedging method was a method for conducting business and thus was not patent eligible because business methods are precluded from patent eligibility as processes, and (3) the hedging method was not patent eligible because it was an abstract idea.⁹¹

The Court held the machine-or-transformation test is a “useful test and important clue for determining whether a claimed invention is a process within § 101, but it is not the sole test.”⁹² The Court also concluded business methods are not categorically excluded from patent eligibility as processes.⁹³ The Court further held the claims of *Bilski* and Warsaw’s hedging method were, nonetheless, an abstract idea and not patent eligible under § 101.⁹⁴ Therefore, the Court affirmed the court of appeal’s decision rejecting *Bilski* and Warsaw’s patent application.⁹⁵

A. THE MAJORITY OPINION

Justice Kennedy authored the majority opinion in *Bilski*, in which Chief Justice Roberts, Justice Thomas, and Justice Alito joined in full and Justice Scalia joined in part.⁹⁶ The majority opinion addressed the machine-or-transformation test for patent eligibility of a process,⁹⁷ the business methods exclusion from patent eligibility,⁹⁸ and the patent eligibility of abstract ideas.⁹⁹

1. *The Machine-or-Transformation Test*

The Court first considered whether an invention was required to be tied to a machine or transform an article to be a patent eligible process under § 101.¹⁰⁰ To determine whether the machine-or-transformation test was the sole test for patent eligibility of a process, the Court looked to the statutory language and the principles of statutory interpretation.¹⁰¹ For statutory

91. *Bilski*, 130 S. Ct. at 3223-24. See also Brief for Respondent at 8-10, *Bilski*, 130 S. Ct. 3218 (No. 08-964) (discussing the arguments presented to the Court).

92. *Bilski*, 130 S. Ct. at 3227.

93. *Id.* at 3228.

94. *Id.* at 3231.

95. *Id.*

96. *Id.* at 3223.

97. *Id.* at 3226-28.

98. *Id.* at 3228-29.

99. *Id.* at 3229-30.

100. *Id.* at 3225. Under the appellate court’s formulation, a process is only patent eligible under § 101 if it is “tied to a particular machine or apparatus, or it transforms a particular article into a different state or thing.” *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008).

101. *Bilski*, 130 S. Ct. at 3226.

construction, unless otherwise defined, “words will be interpreted as taking their ordinary, contemporary common meaning.”¹⁰² The Patent Act explicitly defines the term “process” in § 100(b) as a “process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material.”¹⁰³ The definition of process provided in § 100(b) applies to the term “process” in § 101.¹⁰⁴ The Court stated it was unaware of any ordinary, contemporary common meaning of “process, art or method”¹⁰⁵ as used in the definition of process in § 100(b) that confined these terms to be tied to a machine or transformation of an article.¹⁰⁶ Thus, adopting the machine-or-transformation test as the sole test of patent eligibility for processes in § 101 would violate statutory interpretation principles.¹⁰⁷ The Court further stated the doctrine of *noscitur a sociis* was inapplicable because § 100(b) explicitly defined the term “process,” and there was no need to look to other patent eligible categories of § 101 to determine the confines of “process” in § 101.¹⁰⁸ Consistent with the principles of statutory interpretation, the Court held the court of appeals incorrectly decided the exclusive test of patent eligibility for a process was the machine-or-transformation test.¹⁰⁹

The machine-or-transformation test is one test to determine whether a process is patent eligible, but it was not intended to be the exclusive test.¹¹⁰ The Court reinforced that the machine-or-transformation test is not the exclusive test of patent eligibility of processes by relying on the reasoning of the *Benson* and *Flook* Courts.¹¹¹ In *Benson*, the Court specifically stated “transformation and reduction of an article to a different state or thing is the clue to the patentability of a process claim that does not include particular machines,”¹¹² but declined to hold an invention would not be patent eligible

102. *Diamond v. Diehr*, 450 U.S. 175, 182 (1981) (quoting *Perrin v. United States*, 444 U.S. 37, 42 (1979)).

103. 35 U.S.C. § 100(b) (2006).

104. *Id.*

105. *Id.*

106. *Bilski*, 130 S. Ct. at 3227.

107. *Id.*

108. *Id.* *Noscitur a sociis* is “a canon of construction holding that the meaning of an unclear word or phrase should be determined by the words immediately surrounding it.” BLACK’S LAW DICTIONARY 1160-61 (9th ed. 2009); see also *United States v. Stevens*, 130 S. Ct. 1577, 1588 (2010) (applying *noscitur a sociis* to give an ambiguous term more precise content by neighboring words with which the word was associated). Respondents urged the Court to look to the three other patent eligible categories in § 101—machines, manufactures, and compositions of matter—to confine the meaning of “process” by requiring a tie to a machine or transformation. *Bilski*, 130 S. Ct. at 3226.

109. *Bilski*, 130 S. Ct. at 3227.

110. *Id.*

111. *Id.* at 3226-27.

112. *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972).

if the claimed process was not able to meet the machine-or-transformation test.¹¹³ In *Flook*, the Court took a similar approach, holding a process may be patented even if it is not tied to a machine or does not transform a particular article.¹¹⁴ Thus, the *Flook* Court concluded “precedents establish the machine-or-transformation test is a useful and important clue, an investigative tool, for determining whether some claimed inventions are processes under § 101.”¹¹⁵

2. Patent Eligibility of Business Methods

The Court next considered whether there was a categorical exclusion of business method patents as “processes” under § 101.¹¹⁶ Again, the Court relied on principles of statutory interpretation to conclude there was no broad categorical exclusion of business methods as patent eligible.¹¹⁷ The term “method” is used in the definition of “process” within § 100(b).¹¹⁸ Because “method” within § 100(b) is not defined, the Court looked to the ordinary, contemporary, common meaning of the term.¹¹⁹ The Court stated it was unaware of any ordinary, contemporary, common meaning of “method” that excluded business methods and defined method as “an orderly procedure or process . . . regular way or manner of doing anything; hence, a set form of procedure adopted in investigation or instruction.”¹²⁰

The Court continued by stating the categorical exclusion of business methods in the scope of § 101, which the Secretary of Commerce of Intellectual Property urged, would undermine the Patent Act because the Act specifically contemplated the existence of business method patents.¹²¹ Under § 273(b)(1), a defense of prior use is provided against claims of alleged patent infringement.¹²² For purposes of the defense in § 273(b)(1),

113. *Id.* at 71 (“We do not hold that no process patent could ever qualify if it did not meet the requirements of our prior precedents.”). See *Smith v. Snow*, 294 U.S. 1 (1935), and *Waxham v. Smith*, 294 U.S. 20 (1935), for additional discussion on patent eligibility of processes that are not tied to machines.

114. *Parker v. Flook*, 437 U.S. 584, 588 & n.9 (1978).

115. *Bilski*, 130 S. Ct. at 3227.

116. *Id.* at 3228.

117. *Id.* at 3228-29.

118. See 35 U.S.C. § 100(b) (2006) (defining process as “process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material”).

119. *Diamond v. Diehr*, 450 U.S. 175, 182 (1981) (quoting *Perrin v. United States*, 444 U.S. 37, 42 (1979)).

120. *Bilski*, 130 S. Ct. at 3228 (quoting WEBSTER’S NEW INTERNATIONAL DICTIONARY 1548 (2d ed. 1934)).

121. *Id.*

122. *Id.* The defense of prior use to an alleged patent infringement provides:

It shall be a defense to an action for infringement under section 271 of this title . . . with respect to any subject matter that would otherwise infringe one or more claims

the term “method” includes “a method of doing or conducting business.”¹²³ The Court interpreted the scope of § 101 in light of the reference to “doing and conducting business” within § 273 and concluded the exclusion of business methods as patent eligible would render § 273 meaningless.¹²⁴ Further, the Court held § 273 supported the understanding that a business method is one type of patent eligible method under § 101.¹²⁵

The categorical exclusion of business method patents as processes under § 101 would violate the principle against interpreting a statutory provision so as to render another provision superfluous.¹²⁶ While statutory interpretation principles allow for the possibility of some business method patents, the Court did not suggest all business methods are patent eligible, nor did the Court suggest the “broad patentability of business method inventions.”¹²⁷ Thus, the Court concluded there was no categorical exclusion of business method patents as patent eligible “processes” under § 101 and the claimed hedging method in *Bilski* and Warsaw’s patent application was not categorically outside the scope of § 101.¹²⁸

3. *Patent Eligibility of Abstract Ideas as Processes*

The Court held *Bilski* and Warsaw’s patent application was not outside the scope of § 101 because the hedging method did not meet the machine-or-transformation test, and it could not be rejected categorically as the method results in a business method process.¹²⁹ Nonetheless, the Court concluded the examiner did not err in rejecting the patent application because the claimed process was an abstract idea.¹³⁰ Instead of “adopting

for a method in the patent being asserted against a person, if such person had, acting in good faith, actually reduced the subject matter to practice at least 1 year before the effective filing date of such patent, and commercially used the subject matter before the effective filing date of such patent.

35 U.S.C. § 273(b)(1).

123. *Bilski*, 130 S. Ct. at 3228. The term “method” as used in § 273(b)(1) “means a method of doing or conducting business.” 35 U.S.C. § 273(a)(3).

124. *Bilski*, 130 S. Ct. at 3228.

125. *Id.* Specifically, the Court concluded:

By allowing [the defense in § 273,] the statute itself acknowledges that there may be business method patents. Section 273’s definition of “method,” to be sure, cannot change the meaning of a prior-enacted statute. But what § 273 does is clarify the understanding that a business method is simply one kind of “method” that is, at least in some circumstances, eligible for patenting under § 101. A conclusion that business methods are not patentable in any circumstance would render § 273 meaningless.

Id.

126. *Id.* (citing *Corley v. United States*, 129 S. Ct. 1558, 1566 (2009)).

127. *Id.* at 3229.

128. *Id.* at 3230.

129. *Id.*

130. *Id.* at 3231.

categorical rules that might have wide-ranging and unforeseen impacts[.]" the Court narrowly decided the outcome of *Bilski* on the basis of the Court's earlier decisions in *Benson*, *Flook*, and *Diehr*.¹³¹

Three specific exceptions exist to the broad patent eligibility principles of § 101: "laws of nature, physical phenomena, and abstract ideas."¹³² The three exceptions are not required by the statutory language of § 101, but they are consistent with the requirement that a process must be new and useful to be patentable.¹³³ In *Benson*, the Court explained "a principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim either of them an exclusive right."¹³⁴ Granting a patent for the invention at issue in *Benson* would have resulted in patenting an idea, "wholly pre-empt[ing] the mathematical formula involved and in practical effect would be a patent on the algorithm itself."¹³⁵ In *Flook*, the Court held a process was not eligible for patent protection because the only innovation was reliance on a mathematical algorithm.¹³⁶ Unlike the algorithm in *Benson*, the algorithm in *Flook* was limited because it could be freely used outside the petrochemical and oil refining industries, but the Court rejected the application as a post-solution activity, which, no matter how conventional or obvious in itself, could not transform an unpatentable principle into a patentable process.¹³⁷

Similar to the use of an algorithm in the process at issue in *Benson*, the hedging process in *Bilski* and Warsaw's application could be reduced to a pure mathematical formula, an abstract idea and therefore not patent eligible.¹³⁸ Allowing patent protection for *Bilski* and Warsaw's claims one and four would "pre-empt use of this approach in all fields," just as granting a patent in *Benson* would have achieved.¹³⁹ Similar to the claims in *Flook*, the remaining claims of *Bilski* and Warsaw's application were essentially post-solution tokens that attempted to patent the abstract idea of hedging

131. *Id.* at 3229.

132. *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980); *see also Parker v. Flook*, 437 U.S. 584, 594 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972).

133. *Bilski*, 130 S. Ct. at 3225.

134. *Benson*, 409 U.S. at 67.

135. *Id.* at 72.

136. *Flook*, 437 U.S. at 585-86.

137. *Id.* at 590.

138. *Bilski*, 130 S. Ct. at 3231.

139. *Id.* Claim four of *Bilski* and Warsaw's patent application reduced claim one to a mathematical formula. Brief for Petitioners, *supra* note 1, at 8. The remaining claims of the application were dependant on the mathematical formula articulated in claim four. *Bilski*, 130 S. Ct. at 3224.

risk.¹⁴⁰ *Bilski* and Warsaw's patent application was rejected under the Court's precedents on "the unpatentability of abstract ideas."¹⁴¹ For a definition of a patent eligible process, no further guidance was required of the Court beyond *Benson*, *Flook*, *Diehr*, and the definition within § 100.¹⁴² Thus, the United States Supreme Court affirmed the court of appeal's decision rejecting patent protection for *Bilski* and Warsaw's hedging method.¹⁴³

B. CONCURRING OPINION BY JUSTICE STEVENS

Justice Stevens concurred in the judgment, holding the claimed process was not patent eligible, but authored a separate opinion in which Justice Ginsberg, Justice Breyer, and Justice Sotomayor joined.¹⁴⁴ Justice Stevens suggested the majority opinion was too broad because the issue could have been resolved narrowly by holding "that although the machine-or-transformation test is reliable in most cases, it is not the *exclusive* test."¹⁴⁵ Justice Stevens disagreed with the majority's inclusion of business methods as patent eligible, and he stated business methods have historically been outside of the subject matter to receive patent protection,¹⁴⁶ outside the definition of "process" in § 101, and not intended for patent protection.¹⁴⁷ Further, Justice Stevens suggested the inclusion of business methods as patent eligible processes under § 101 may inhibit innovation, when encouraging innovation is at the premise of patent protection.¹⁴⁸

In his opinion, Justice Stevens heavily critiqued the majority's statutory interpretation of "process" within § 100(b).¹⁴⁹ Relying on the *Flook* Court's language, Justice Stevens stated within § 101, the term "process" did not refer to the ordinary usage of the term.¹⁵⁰ Justice Stevens stated the

140. *Bilski*, 130 S. Ct. at 3231. The claimed invention in *Flook* was possibly more tangible than the method of hedging because the *Flook* invention "was at least directed to a narrower domain of signaling dangers in operating a catalytic converter." *Id.*

141. *Id.*

142. *Id.*

143. *Id.*

144. *Id.*

145. *Id.* at 3231-32 (Stevens, J., concurring).

146. *Id.* at 3239 (citing *Parker v. Flook*, 437 U.S. 584, 593 (1978)).

147. *Id.* at 3238. The majority's statutory interpretations using the ordinary, contemporary, and common meaning of process ignores the well-settle proposition that "process" in § 101 is not a process in the ordinary sense of the word. *Id.* (citing *Flook*, 437 U.S. at 588).

148. *Id.* at 3253.

149. *Id.* at 3237. Justice Stevens noted the definition of "process" in § 100(b) was not helpful because it contained the terms "process" and was circular. *Id.*

150. *Id.* (citing *Flook*, 437 U.S. at 588) (stating the discovery of the method in *Gottschalk v. Benson* forecloses a purely literal reading of § 101). However, the *Flook* Court noted the statutory definition of "process" was broad and has been restricted by the recognition of a process as patent eligible when it was "tied to a particular apparatus or operated to change materials to a different state or thing." *Flook*, 437 U.S. at 588 n. 9.

Court made a “serious interpretive error” when it abandoned the well-settled proposition that the term “process” in §101 is not a process in the ordinary sense of the word, as the term process was used within the 1952 Patent Act.¹⁵¹ According to Justice Stevens, the majority erred when it interpreted the term “process” with its ordinary, contemporary common meaning and ignored the “complex terms of art developed against a particular historical background.”¹⁵² Justice Stevens found the majority’s interpretation incredible because the Court had previously deviated from interpreting “process” in § 101 with its ordinary, contemporary, common meaning.¹⁵³

Opposed to the majority opinion, Justice Stevens further concluded business methods were not eligible for patent protection.¹⁵⁴ Justice Stevens noted American patent law was largely founded on the English patent system¹⁵⁵ and stated there was no basis from the text of the Statute of Monopolies or the English common law prior to 1790 to infer a business method was eligible for patent protection.¹⁵⁶ Further, when English patent law was integrated into American law through the Constitution, there was little debate about the scope of patentable subject matter because legislators, courts, and patent officers knew machines and manufactures were at the core of the patent system.¹⁵⁷ Justice Stevens noted from 1790 to 1952, the Court never addressed the patentability of business methods and consistently focused on whether the invention was connected with a machine or physical transformation.¹⁵⁸ In 1952, when the Patent Act was amended and the term “process” replaced the term “art,” the intent was not to expand the subject matter that was patent eligible, but instead to codify the courts’ interpretation of “art” as process and method.¹⁵⁹ Justice Stevens suggested the 1952 Patent Act appeared to codify the “conclusion that subject matter which was understood not to be patentable in 1952 was to remain unpatent-

151. *Bilski*, 130 S. Ct. at 3238 (Stevens, J., concurring).

152. *Id.*

153. *Id.* at 3238-39; see *Flook*, 437 U.S. at 589 (noting the discovery of the method in *Benson* “foreclose[d] a purely literal reading of § 101”); *Diamond v. Diehr*, 450 U.S. 175, 185 (1981) (holding claims that are close to laws of nature, natural phenomena, and abstract ideas are not processes under § 101 even if they could be described as a process in the ordinary sense of the word).

154. *Bilski*, 130 S. Ct. at 3239 (Stevens, J., concurring).

155. *Id.* at 3239 (citing E. WALTERSCHEID, *TO PROMOTE THE PROGRESS OF USEFUL ARTS: AMERICAN PATENT LAW AND ADMINISTRATION, 1789–1836*, 109 (1998)).

156. *Id.* at 3240 n. 10.

157. *Id.* at 3245; see also discussion *supra* Part III.A (discussing constitutional and statutory language).

158. *Bilski*, 130 S. Ct. at 3246 n.33 (Stevens, J., concurring).

159. *Id.* at 3247.

able.”¹⁶⁰ Recent case law reinforces Justice Stevens’ view that business methods are not patent eligible as processes under § 101 because the Court has never ruled on whether the 1952 Patent Act authorizes patents on business methods.¹⁶¹ Further, the Court has expressed significant doubt on the patent eligibility of business methods because the Court gives substantial weight to the machine-or-transformation test, which business methods generally do not pass.¹⁶²

C. CONCURRING OPINION BY JUSTICE BREYER

Justice Breyer also authored a separate concurring opinion, in which Justice Scalia joined in part.¹⁶³ Justice Breyer agreed with Justice Stevens that generally, methods of engaging in business transactions are not patentable processes, and *Bilski* should have been decided on those grounds.¹⁶⁴ Most importantly, Justice Breyer noted, in deciding the machine-or-transformation test was not the sole test of patent eligibility for processes, the Court did not indicate anything that produced a useful, concrete, and tangible result was patentable.¹⁶⁵

IV. IMPACT

The decision in *Bilski* will ultimately affect a boundless number of industries, specifically “the patentability of software, advanced diagnostic medicine techniques, and inventions based on linear programming, data compression, and the manipulation of digital signals.”¹⁶⁶ The number of amicus briefs submitted to the Supreme Court in support of either peti-

160. *Id.* at 3249.

161. *Id.* (citing *eBay Inc. v. MercExchange*, 547 U.S. 388, 397 (2006) (Kennedy, J., concurring)).

162. *Id.* The court has:

[N]ever ruled on whether [the 1952] Act authorizes patents on business methods. But [the Court has] cast significant doubt on that proposition by giving substantial weight to the machine-or-transformation test, as general methods of doing business do not pass that test. And more recently, Members of this Court have noted that patents on business methods are of “suspect validity.”

Id.

163. *Id.* at 3257 (Breyer, J., concurring).

164. *Id.* at 3257-58.

165. *Id.* at 3259. In *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, the Federal Circuit Court of Appeals held an invention as patent eligible because it produced a “useful, concrete and tangible result.” *State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998). As the Federal Circuit Court of Appeals explained in *In re Bilski*, the “useful, concrete and tangible result” test is applicable to claims drawn from machines, not processes. *In re Bilski*, 545 F.3d 943, 959-60 n.18 (Fed. Cir. 2008).

166. *Bilski*, 130 S. Ct. at 3227 (referencing several amicus briefs that were submitted).

tioner, respondent, or neither party is evidence of the pervasive effect the decision will have on industry, old and new.¹⁶⁷

A. PATENT ELIGIBILITY OF BUSINESS METHODS

While the majority opinion concluded business method patents were not excluded as a category from patent eligibility, Justices Stevens and Breyer reached the opposite conclusion that business methods, in general, should not be patent eligible.¹⁶⁸ Justice Stevens relied upon the English history of patent law as it evolved into the American patent system for denying methods of doing business as patent eligible.¹⁶⁹ Comparably, the majority relied on principles of statutory interpretation to reach the opposite conclusion.¹⁷⁰

The well-reasoned dichotomy created by the Court may give rise to uncertainty as to business method patents.¹⁷¹ In Justice Kennedy's dicta, he expressed concern that "[i]f a high enough bar is not set when considering patent applications [of business methods], patent examiners and courts could be flooded with claims that would put a chill on creative endeavor and dynamic change."¹⁷² However, Justice Kennedy noted technology and innovations progress in unexpected ways, and this does not mean new technology is never patent eligible.¹⁷³ Of course, business method patents are still "subject to the conditions and requirements of this title[.]"¹⁷⁴ and there are safeguards against non-deserving business method patents, such as novelty within § 102, nonobviousness within § 103, and the need for a full and particular description within § 112.¹⁷⁵ Also, concerns about granting patents to any form of human activity as a process can, as the majority suggested, be restrained by the requirements of § 101 itself.¹⁷⁶ These

167. See *Preview of the United States Supreme Court Cases, Briefs November Cases 2009-2010 Term*, AMERICAN BAR ASSOCIATION, <http://www.abanet.org/publiced/preview/briefs/nov09.shtml#08964> (last visited Feb. 11, 2011). Sixty-eight amicus briefs were submitted to the Court from: states; universities; members of software, biotechnology, energy, and environmental industries; and professional associations. *Id.*

168. *Bilski*, 130 S. Ct. at 3228, 3239, 3258. See generally discussion *supra* Part III (discussing the *Bilski* Court's analysis).

169. *Bilski*, 130 S. Ct. at 3239-42.

170. *Id.* at 3228.

171. *Id.* at 3229.

172. *Id.* (Justice Scalia did not join the majority opinion in relevant part, creating a plurality opinion).

173. *Id.* at 3227. Justice Kennedy noted "well-established principles of patent law probably would have prevented the issuance of a valid patent on almost any conceivable computer program." *Id.* (citing *Diamond v. Diehr*, 450 U.S. 175, 195 (1981) (Stevens, J., dissenting)).

174. 35 U.S.C. § 101 (2006).

175. 35 U.S.C. §§ 102-103, 112; see also *Bilski*, 130 S. Ct. at 3229.

176. *Bilski*, 130 S. Ct. at 3225.

constraints are in place to ensure patents are only awarded to deserving inventions so as to further the purpose of the Patent Act, which is to foster innovation.¹⁷⁷

The purpose of patent protection is to promote innovation.¹⁷⁸ The Constitution grants Congress the power “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”¹⁷⁹ For businesses, the market promotes innovation, and in applying *Bilski*, courts will need to find a happy medium so as not to impede the “Progress of . . . useful Arts.”¹⁸⁰ Justice Stevens stated companies have incentive within a competitive market to develop business methods without patent protection, and some business methods can be protected under an umbrella of trade secrets.¹⁸¹ However, the Court left the task of balancing the scales of promoting and stifling innovation to the Federal Circuit Court when the Supreme Court urged the Federal Circuit to determine limiting criteria on the patent eligibility of processes that promote the purposes of the Patent Act.¹⁸² Through the Federal Circuit’s future decisions, the court must develop limitations on patent eligibility of business methods as processes. The task assigned to the Federal Circuit is a difficult one, and the U.S. Supreme Court previously “thought [the Federal Circuit] needed to make the machine-or-transformation test exclusive precisely because its case law had not adequately identified less extreme means of restricting business method patents.”¹⁸³

B. REMAND OF CASES IN LIGHT OF *BILSKI*

The day following the *Bilski* decision, the Court granted certiorari for two cases, *Classen Immunotherapies, Inc. v. Biogen IDEC*¹⁸⁴ and *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*¹⁸⁵ Both cases were remanded to the United States Court of Appeals for the Federal

177. *Id.*

178. *Id.* at 3257 (Stevens, J., concurring).

179. U.S. CONST. art. 1, § 8, cl. 8.

180. *Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc.*, 548 U.S. 124, 126-27 (2006) (Breyer, J., dissenting) (discussing how patents can discourage research by impeding the free exchange of information).

181. *Bilski*, 130 S. Ct. at 3254 (Stevens, J., concurring).

182. *Id.* at 3231 (“In disapproving an exclusive machine-or-transformation test, we by no means foreclose the Federal Circuit’s development of other limiting criteria that further the purposes of the Patent Act and are not inconsistent with its text.”).

183. *Id.*

184. 130 S. Ct. 3541 (2010).

185. 130 S. Ct. 3543 (2010).

Circuit for further consideration in light of *Bilski*.¹⁸⁶ These cases involve the first application of the *Bilski* analysis in the Federal Circuit, which will provide the foundation for courts' direction determining patent eligibility of processes.

Prior to the *Bilski* Court's decision, in *Prometheus Laboratories, Inc. v. Mayo Collaborative Services*,¹⁸⁷ the Federal Circuit Court held the district court erred in finding the claimed method of medical treatment as not patentable.¹⁸⁸ On remand and in light of *Bilski*, the Federal Circuit again ruled the district court erred.¹⁸⁹ The decisions of the Federal Circuit in *Prometheus Laboratories, Inc.* were determined based on the machine-or-transformation test of patent eligibility for processes.¹⁹⁰ The Federal Circuit noted the *Bilski* decision "did not undermine our preemption analysis of Prometheus's claims [when] it rejected the machine-or-transformation test only as a definitive test."¹⁹¹ However, the Federal Circuit further rejected Mayo's contention that the machine-or-transformation test was not determinative of patent eligibility.¹⁹² Because the method of medical treatment at issue in *Prometheus Laboratories, Inc.* satisfied the machine-or-transformation test, the Federal Circuit did not further determine any limitations of processes that do not meet the machine-or-transformation test.¹⁹³ On remand, the Federal Circuit's decision of *Classen Immunotherapies, Inc.* will clarify the patentability of those processes that do not satisfy the machine-or-transformation test. In the Federal Circuit's previous ruling in *Classen Immunotherapies, Inc.*, the process at issue was not patent eligible because it did not satisfy the machine-or-transformation test.¹⁹⁴

C. UNITED STATES PATENT AND TRADEMARK OFFICE PROCEDURES

The United States Patent and Trade Office was organized to create an efficient system of reviewing patent applications.¹⁹⁵ When a patent application is rejected by a USPTO examiner, the USPTO issues an Office

186. *Classen*, 130 S. Ct. at 3541; *Mayo*, 130 S. Ct. at 3543.

187. 581 F.3d 1336 (Fed. Cir. 2009).

188. *Prometheus Labs.*, 581 F.3d at 1339.

189. *Prometheus Labs., Inc. v. Mayo Collaborative Servs.*, 628 F.3d 1347, 1348 (Fed. Cir. 2010).

190. *Id.* at 1354.

191. *Id.* at 1355.

192. *Id.*

193. *Id.* at 1359.

194. *Classen Immunotherapies, Inc. v. Biogen IDEC*, 304 F. App'x 866, 867 (Fed. Cir. 2008).

195. ADELMEN ET AL., *supra* note 41, at 24.

Action with the inadequacies of the application.¹⁹⁶ An applicant then has up to six months to respond to the Office Action, arguing the rejection was either factually or legally improper.¹⁹⁷ Through this process, the USPTO acts as a “gate-keeping” function by preventing the issuance of non-deserving patents.¹⁹⁸ During examination, the USPTO examines the “substantive requirements of patent law: eligibility, utility, novelty, nonobviousness, adequate disclosure, and definiteness.”¹⁹⁹ The *Bilski* decision may open the flood gates for the USPTO to receive applications for process claims, many bearing little resemblance to actual patent eligible subject matter.²⁰⁰ With uncertainty as to which business methods are patent eligible and to consideration of other possible tests of patent eligibility, determining eligibility by examiners may not efficiently eliminate non-deserving patents.²⁰¹ Without the ability to rigorously determine patent eligibility, costs of doing business will increase from either increased litigation expenses or extracting royalty payments.²⁰²

The inclusion by the majority of business methods as patent eligible may be a step toward patent eligibility determinations on a case-by-case basis, as suggested by Administrative Patent Judge McQuade.²⁰³ Judge McQuade noted, in *Ex parte Bilski*,²⁰⁴ “[The] bright line test for determining whether a claimed invention embodies statutory subject matter under 35 U.S.C. § 101 is an exercise in futility.”²⁰⁵ Thus, examination of the claimed process as a whole would be a more functional approach.²⁰⁶ Both the majority and concurring opinions in *Bilski* similarly support a holistic approach to determining patent eligibility.²⁰⁷

196. 37 C.F.R. § 1.104 (2009).

197. 35 U.S.C. § 133 (2006); *see also* 37 C.F.R. §§ 1.11, 1.121.

198. ADELMEN ET AL., *supra* note 41, at 16.

199. *Id.*

200. *Ex parte Bilski*, No. 2002-2257, 2006 Pat. App. LEXIS 51, at *7 (B.P.A.I. Sept. 26, 2006). The Board noted the USPTO has already been flooded with process claims; many are referred to as “business methods” and include methods of meditation, dating, and physical sports moves. *Id.*

201. ADELMEN ET AL., *supra* note 41, at 16.

202. *Id.*

203. *Bilski*, 2006 Pat. App. LEXIS 51, at *82 (McQuade, J., concurring).

204. No. 2002-2257, 2006 Pat. App. LEXIS 51 (B.P.A.I. Sept. 26, 2006).

205. *Bilski*, 2006 Pat. App. LEXIS 51, at *80.

206. *Id.* at *81.

207. *Bilski v. Kappos*, 130 S. Ct. 3218, 3230 (2010). Relying on language in *Diamond v. Diehr*, the Court emphasized the need to examine the claim as a whole, rather than “dissect[ing] the claims into . . . elements in the analysis.” *Id.* (quoting *Diamond v. Diehr*, 450 U.S. 175, 188 (1981)).

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V. CONCLUSION

In *Bilski*, the United States Supreme Court concluded the machine-or-transformation test was not the sole test of patent eligibility for processes under § 101.²⁰⁸ The machine-or-transformation test remains a useful guide for determining whether a process invention is eligible for patent protection, and such determinations should be guided by the Court's decisions in *Benson*, *Flook*, and *Diehr*.²⁰⁹ The Court also articulated business methods are not explicitly precluded from patent eligibility.²¹⁰ The Court held *Bilski* and *Warsaw*'s patent application was not patent eligible because the claims attempted to patent an abstract idea.²¹¹

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208. *Id.* at 3227.

209. *Id.* at 3231.

210. *Id.* at 3229-30.

211. *Id.* at 3231.

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