

***BILSKI V. KAPPOS:***  
**A BREATH OF FRESH AIR OR RESUSCITATING**  
**UNCERTAINTY FOR BUSINESS PROCESS METHOD PATENTS**  
**IN THE INFORMATION AGE?**

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I. INTRODUCTION

Tasked with the promotion of “Science and useful Arts” under the United States Constitution,<sup>1</sup> Congress developed a patent system which balances the interest of rewarding and inspiring innovation with the need to provide for the free flow of ideas.<sup>2</sup> Section 101 of the Patent Act serves as a gatekeeper for patent claims, ensuring that only claims eligible for patent protection are considered.<sup>3</sup> Section 101 provides that claims for processes

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\* I graduated from Capital University Law School in 2011 and received a B.B.A. from Ohio University College of Business in 1999. My interest in the protection of business process methods and technological innovation is rooted in a decade spent consulting corporations in business management and information technology integration. While I would not argue that the applicant’s claims in *Bilski v. Kappos* rise to a level of innovation worth protecting, many implementations of business processes into and through the use of technology do. It is unfortunate that the claims in this case did not present more of a challenge and further stress the Court’s interpretation of its precedent into a more definite method for dealing with today’s business process method patent applications. Nonetheless, the Court’s discussion of claims in the Information Age encouraged and inspired me to write this note. I would like to thank Professor Don Hughes and Cris Thomas for their suggestions, guidance, and expertise throughout the writing of this note.

<sup>1</sup> U.S. CONST. art. I, § 8, cl. 8 (“To 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.”).

<sup>2</sup> *Bilski v. Kappos*, 130 S. Ct. 3218, 3228 (2010). The *Bilski* Court stated: “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.” *Id.*

<sup>3</sup> See U.S. Patent Act, 35 U.S.C. §§ 1–376 (2006); *Bilski*, 130 S. Ct. at 3225 (“Section 101 thus specifies four independent categories of inventions or discoveries that are eligible for protection . . .”).

are patent eligible.<sup>4</sup> In an era of evolving technology, innovation, and ideas, the need to control the volume of eligible applications through this section is substantial.

The Supreme Court in *Bilski v. Kappos*<sup>5</sup> considered the proper standard to determine the patent eligibility of business process methods.<sup>6</sup> The claims at issue in *Bilski v. Kappos* laid out methods to hedge the risk of fluctuations in prices when trading commodities or options, which resembled a commonsense “sell high, buy low” strategy and included some well-known statistical approaches.<sup>7</sup> The central question was whether the method qualified as a process under the threshold requirement for consideration found in Section 101 of the Patent Act.<sup>8</sup> Precedent by the Supreme Court and the lower courts have established tests to determine whether an invention qualifies as a process and is subject to the additional requirements imposed via Section 101.<sup>9</sup> The United States Court of Appeals for the Federal Circuit in *In re Bilski* rejected application of prior precedent and adopted the machine-or-transformation test as the sole test in affirming the denial of the patent application.<sup>10</sup> The Supreme Court in *Bilski v. Kappos* affirmed the appellate judgment denying the patent application, but on a different basis (i.e., that that proposed business process method was abstract).<sup>11</sup> The Court held that the machine-or-transformation test is not the sole test but “is a useful and important clue, an investigative tool” for the courts to evaluate a process in addition to

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<sup>4</sup> *Bilski*, 130 S. Ct. at 3225. Notably, however, the “patent-eligibility inquiry is only a threshold test.” *Id.*

<sup>5</sup> 130 S. Ct. 3218 (2010).

<sup>6</sup> *Id.* at 3223.

<sup>7</sup> *See id.*

<sup>8</sup> *Id.* (“The question in this case turns on whether a patent can be issued for a claimed invention designed for the business world.”). *See also* 35 U.S.C. § 101 (“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.”).

<sup>9</sup> *See generally In re Bilski*, 545 F.3d 943, 951–56 (Fed. Cir. 2008) (discussing prior case law and standards that the courts have applied).

<sup>10</sup> *Id.* at 956 (“We . . . reaffirm that the machine-or-transformation test, properly applied, is the governing test for determining patent eligibility of a process under § 101.”).

<sup>11</sup> *Bilski*, 130 S. Ct. at 3229–30 (“Indeed, all members of the Court agree that the patent application at issue here falls outside of § 101 because it claims an abstract idea.”).

prior precedent.<sup>12</sup> The rationale and policy considerations provided by the Court recognized the need to balance protecting innovation against avoiding monopolies, particularly in light of evolving technology.<sup>13</sup> The Court recognized concerns that the machine-or-transformation test and other standards create uncertainty in the patentability of software and other applications coming out of the Information Age.<sup>14</sup>

In restricting the application of the machine-or-transformation test, the Court properly spared the patentability of business process methods. As an inevitable consequence of restoring the status quo, however, further uncertainty as to the patentability of business process methods ensues. The Court's decision in *Bilski v. Kappos* leaves the lower courts and patent lawyers with an unworkable set of standards. While properly refusing to narrow the scope of patent eligibility, the Court failed to provide a clear method of how the machine-or-transformation test should be applied together with prior precedent when determining the patent eligibility of inventions in the Information Age.

To fully understand the Court's decision, it will be important to first review the background of the machine-or-transformation test. Section II provides a review of the source of patent laws, the driving policy concerns, and the precedent that broadly defines the scope of the patent eligibility determination process generally. Next, it includes a review of the three most relevant Supreme Court cases relied on in *Bilski v. Kappos* to limit the application of the machine-or-transformation test. Finally, the section reviews other standards originating from the Federal Circuit that contributed to the development of the machine-or-transformation test.

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<sup>12</sup> *Id.* at 3227.

<sup>13</sup> *Id.* at 3228.

<sup>14</sup> *Id.* at 3227. The Court noted:

The machine-or-transformation test may well provide a sufficient basis for evaluating processes similar to those in the Industrial Age . . . . But there are reasons to doubt whether the test should be the sole criterion for determining the patentability of inventions in the Information Age. . . . [It] would create uncertainty as to the patentability of software, advanced diagnostic medicine techniques, and inventions based on linear programming, data compression, and the manipulation of digital signals.

*Id.* at 3227.

Following this review of the background, Section III discusses *Bilski v. Kappos*. This involves an overview of the patent application at issue in the case and the procedural history. Because *In re Bilski* has been highly criticized, a detailed analysis is unnecessary. This section then provides a summarized review of the most relevant Federal Circuit findings. Finally, the section reviews the Court's decision and holdings in light of prior precedent, statutory interpretation, public policy, and the Information Age.

Section IV provides an analysis of the strengths and weaknesses of the Court's decision. It first discusses the positive outcomes from the case—namely, sustaining the patentability of business process methods and the Court's recognition of the need for business process methods in the Information Age. The section concludes with a review of the decision's weaknesses—specifically, the lack of guidance for future decisions, the lack of a proper test to apply, and the potentially diminishing role of Section 101.

## II. BACKGROUND

### A. Patent Laws, Applications, and Eligibility

The importance and need to “promote the Progress of Science and useful Arts” through protections of exclusivity for inventors is not only found in centuries of case law and evolving statutes, but it is also one of the specific and enumerated powers placed in Congress's hands.<sup>15</sup> Faced with the challenge of meeting the constitutional demands, Congress formulated a patent system which balances the interest of inventors to “control and exploit[]” their inventions against “society's competing interest in the free flow of ideas, information, and commerce.”<sup>16</sup> The inventor's interest and the forefathers' “important public purpose” are achieved through a limited monopoly.<sup>17</sup> This limited grant of patent protection promotes “the creative activity of authors and inventors by the provision of a special reward,” while ensuring “the public access to the products of the genius after the limited period of exclusive control has

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<sup>15</sup> U.S. CONST. art. I, § 8.

<sup>16</sup> *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 429 (1984).

<sup>17</sup> *Id.* (“The monopoly privileges that Congress may authorize are neither unlimited nor primarily designed to provide a special private benefit.”).

expired.”<sup>18</sup> By fostering productive efforts, the patent system has a positive effect on society.<sup>19</sup>

Congress provided inventors with a system of patent protection by creating the Patent Act.<sup>20</sup> Section 101 states that “[w]hoever invents or discovers any new and useful process . . . may obtain a patent therefor, subject to the conditions and requirements of this title.”<sup>21</sup> As applied, Section 101 is a threshold inquiry into whether a patent claim is eligible for consideration.<sup>22</sup> As a consequence, if a claim is not classified as eligible subject matter under this Section, it will not receive further consideration, even if it could satisfy all the other legal requirements of patentability.<sup>23</sup> The language in Section 101 is short and simple. There are four classifications of patent-eligible subject matter: process, machine, manufacture, and composition of matter.<sup>24</sup> Once eligible, the claim is subject to further conditions of the Patent Act, including that the claim be novel, nonobvious, and fully and particularly described.<sup>25</sup>

Although Congress promulgated the Patent Act, the courts have developed the standards by which certain terms and provisions of the Patent Act are measured.<sup>26</sup> For example, a “process” under Section 101 “is narrower than its ordinary meaning,”<sup>27</sup> and is not eligible for patent protection where it involves “laws of nature, natural phenomena, [or] abstract ideas.”<sup>28</sup> The Supreme Court reasons that some processes are

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<sup>18</sup> *Id.*

<sup>19</sup> *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480 (1974) (“The productive effort thereby fostered will have a positive effect on society through the introduction of new products and processes of manufacture into the economy, and the emanations by way of increased employment and better lives for our citizens.”).

<sup>20</sup> 35 U.S.C. §§ 1–376 (2006).

<sup>21</sup> *Id.* § 101.

<sup>22</sup> *Bilski v. Kappos*, 130 S. Ct. 3218, 3225 (2010). *See also* *Parker v. Flook*, 437 U.S. 584, 593 (1978); *In re Comiskey*, 499 F.3d 1365, 1371 (Fed. Cir. 2007).

<sup>23</sup> *Comiskey*, 499 F.3d at 1371. The court noted that the determination of the type of subject matter to be patented “‘must precede the determination of whether that discovery is, in fact, new or obvious.’” *Id.* (quoting *Flook*, 437 U.S. at 593).

<sup>24</sup> *Bilski*, 130 S. Ct. at 3225.

<sup>25</sup> *Id.*

<sup>26</sup> *See In re Bilski*, 545 F.3d 943, 951–53 (Fed. Cir. 2008) (providing an illustration of the varying standards that have developed).

<sup>27</sup> *Id.* at 952.

<sup>28</sup> *Id.* (quoting *Diamond v. Diehr*, 450 U.S. 175, 185 (1981)).

“the basic tools of scientific and technological work.”<sup>29</sup> Further, the Court has held that an idea is “abstract” where it is a “principle,” “fundamental truth,” “original cause,” or “motive.”<sup>30</sup> Although this serves as a functional definition, determining precisely what is and is not an abstract idea has proven to be a difficult task for courts and patent examiners alike.

### B. *Relevant Precedent Prior to In re Bilski*

To understand the differing standards applied by the courts in response to evolving technology leading up to the decision in *In re Bilski*, consider how the courts have handled claims that appear abstract due to their mathematical nature. Three cases decided by the Supreme Court illustrate the source and evolution of the machine-or-transformation test.<sup>31</sup>

#### 1. *Gottschalk v. Benson*

In *Gottschalk v. Benson*,<sup>32</sup> the Court considered a claim that involved a process of converting binary-coded decimal numerals into pure binary numbers.<sup>33</sup> The process could be performed mentally without the use of a computer, and the claim did not limit the process to “any particular art or technology, . . . apparatus or machinery, or . . . end use.”<sup>34</sup> The applicants “purported to cover any use of the claimed method in a general-purpose digital computer of any type.”<sup>35</sup> The Court held that the claim did not meet Section 101’s threshold requirement for eligibility because it was an abstract idea.<sup>36</sup> Under these circumstances, the Court found that the claim would have preempted all uses of the algorithm and that granting a patent would essentially be to patent the algorithm itself.<sup>37</sup> Because “[t]he

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<sup>29</sup> *Id.* (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)).

<sup>30</sup> *Diehr*, 450 U.S. at 185 (quoting *LeRoy v. Tatham*, 55 U.S. 156, 175 (1852)).

<sup>31</sup> The three cases in order of decision and subsequent discussion are *Benson*, 409 U.S. 63, *Parker v. Flook*, 437 U.S. 584 (1978), and *Diehr*, 450 U.S. 175. See *In re Bilski*, 545 F.3d at 954.

<sup>32</sup> 409 U.S. 63 (1972).

<sup>33</sup> *Id.* at 64.

<sup>34</sup> *Id.* at 64, 67.

<sup>35</sup> *Id.* at 64.

<sup>36</sup> *Id.* at 68 (“Here the ‘process’ claim is so abstract and sweeping as to cover both known and unknown uses of the BCD to pure binary conversion.”).

<sup>37</sup> *Id.* at 72 (“[I]f the judgment below is affirmed, the patent would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself.”).

mathematical formula . . . [had] no substantial practical application except in connection with a digital computer,” *Benson* illustrates how a mathematical equation is akin to an idea or fundamental principal which is ineligible for patentability.<sup>38</sup>

## 2. *Parker v. Flook*

In *Parker v. Flook*,<sup>39</sup> the Court considered a claim that involved a three-step process to update alarm limits useful to the process of catalytic conversion.<sup>40</sup> The only novel element of the process was the second step, which was in essence a mathematical algorithm.<sup>41</sup> The claim did not allege the use of a computer or machine, only that it was a “formula for computing an updated alarm limit . . . primarily useful for computerized calculations.”<sup>42</sup> The Court first rejected the idea that the mere attachment of a post-solution activity—the third step handling the results of the algorithm—could serve to “transform an unpatentable principle into a patentable process,” because it would place “form over substance.”<sup>43</sup> Thus, the use of an algorithm in a process where it has not been used does not alter the algorithm into something more than an idea or fundamental principle.<sup>44</sup>

The applicant in *Flook* also argued, and the Court agreed, that *Benson* did not apply. Rather, the algorithm was useful outside of the industry, and the claim did not attempt to “wholly preempt the mathematical formula” from use outside the industry it came from.<sup>45</sup> The Court conceded that “it is equally clear that a process is not unpatentable simply because it

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<sup>38</sup> *Id.* at 71.

<sup>39</sup> 437 U.S. 584 (1978).

<sup>40</sup> *Id.* at 585.

<sup>41</sup> *Id.* at 586 (“All that [the patent application] provides is a formula for computing an updated alarm limit. . . . [These] cover any use of respondent’s formula for updating the value of an alarm limit . . . [and] the claims cover a broad range of potential uses of the method.”).

<sup>42</sup> *Id.*

<sup>43</sup> *Id.* at 590.

<sup>44</sup> *See id.* (“A competent draftsman could attach some form of post-solution activity to almost any mathematical formula; the Pythagorean theorem would not have been patentable, or partially patentable, because a patent application contained a final step indicating that the formula, when solved, could be usefully applied to existing surveying techniques.”).

<sup>45</sup> *Id.* at 589–90.

contains a law of nature or a mathematical algorithm.”<sup>46</sup> Thus, an idea or fundamental principle could be patentable. Based on prior precedent, to be patentable, an invention “must come from the application of the law of nature to a new and useful end.”<sup>47</sup> In light of *Benson* and *Flook*, to evaluate the claim from the standpoint of the application of the algorithm, a court should first assume that algorithm was well-known.<sup>48</sup> “Even though a phenomenon of nature or mathematical formula may be well known, an inventive application of the principle may be patented. Conversely, the discovery of such a phenomenon cannot support a patent unless there is some other inventive concept in its application.”<sup>49</sup> Ultimately, the Court found the claim to be abstract.<sup>50</sup> The holding in *Flook* illustrates that even where the process containing the algorithm is limited to a specific purpose, it will be patent-ineligible if there is a lack of inventive concept in the application of the algorithm.<sup>51</sup>

Notably, the Court in *Flook* reflected upon the possible implications that a restriction on the patentability of abstract ideas and mathematical algorithms embodied in processes impose upon computer programs and software.<sup>52</sup> “Neither the dearth of precedent, nor this decision, should therefore be interpreted as reflecting a judgment that patent protection of certain novel and useful computer programs will not promote the progress of science and the useful arts, or that such protection is undesirable as a matter of policy.”<sup>53</sup> Although the statement does not specifically carve out an exception, it acknowledges the importance of recognizing and

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<sup>46</sup> *Id.* at 590.

<sup>47</sup> *Id.* at 591 (internal quotations omitted).

<sup>48</sup> *Id.* at 592.

<sup>49</sup> *Id.* at 594.

<sup>50</sup> *Id.* at 594–95. The Court stated:

[I]t is absolutely clear that respondent’s application contains no claim of patentable invention. The chemical processes . . . are well known, as are the practice of monitoring the chemical process variables, the use of alarm limits to trigger alarms, the notion that alarm limit values must be recomputed and readjusted, and the use of computers for ‘automatic monitoring-alarming.’ Respondent’s application simply provides a new and presumably better method for calculating alarm limit values.

*Id.*

<sup>51</sup> *See id.* at 594.

<sup>52</sup> *See id.* at 595.

<sup>53</sup> *Id.*

protecting computer programs and suggests that such innovations would fall within the constitutional definition of patentable subject matter.<sup>54</sup>

### 3. *Diamond v. Diehr*

In *Diamond v. Diehr*,<sup>55</sup> the Court considered a claim that involved a process for calculating the cure time of rubber, which entailed applying an algorithm against temperature readings.<sup>56</sup> The Court found that the process as a whole was eligible, because it involved the transformation of an article—rubber.<sup>57</sup> Although the process employed a “well-known” algorithm, its use, along with the other claimed steps, was patent-eligible, because the patent did not foreclose the use of the algorithm by others.<sup>58</sup> Although a “mathematical algorithm alone is unpatentable because mathematical relationships are akin to a law of nature,”<sup>59</sup> *Diehr* expands on the Court’s analysis in *Flook* and illustrates when the use of an algorithm or fundamental principal may be patentable.<sup>60</sup> Thus, the fact that a step within a process may not independently be patentable does not preclude the process from meeting Section 101’s threshold requirement.<sup>61</sup>

## C. *Other Standards that Pre-date the Machine-or-Transformation Test*

### 1. *The Freeman-Walter-Abele Test*

The United States Court of Customs and Patent Appeals developed a two-step process over the course of three cases from 1978 to 1982, often

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<sup>54</sup> See *id.* Cf. U.S. CONST. art. I, § 8 (granting Congress the power to develop a patent system to “promote the Progress of Science and useful Arts”).

<sup>55</sup> 450 U.S. 175 (1981).

<sup>56</sup> *Id.* at 177–79.

<sup>57</sup> *Id.* at 192–93.

<sup>58</sup> *Id.* at 187 (“[Respondents’] process admittedly employs a well-known mathematical equation, but they do not seek to pre-empt the use of that equation. Rather, they seek only to foreclose from others the use of that equation in conjunction with all of the other steps in their claimed process.”).

<sup>59</sup> *In re Bilski*, 545 F.3d 943, 952 (Fed. Cir. 2008).

<sup>60</sup> *Diehr*, 450 U.S. at 188 (internal quotations omitted).

<sup>61</sup> *Id.* See also *In re Bilski*, 545 F.3d at 958 (“[E]ven though a fundamental principle itself is not patent-eligible, processes incorporating a fundamental principle may be patent-eligible. Thus, it is irrelevant that any individual step or limitation of such processes by itself would be unpatentable under § 101.”).

called the Freeman-Walter-Abele test.<sup>62</sup> First, the court must determine whether the claim involves an “algorithm” under *Benson*.<sup>63</sup> Second, if the first requirement is met, the court must evaluate whether the algorithm is “applied in any manner to physical elements or process steps,” consistent with Court’s application in *Flook*.<sup>64</sup> When applying the second step to a process claim, if “the mathematical algorithm is implemented in a specific manner . . . to refine or limit claim steps,” it will be eligible under Section 101 so long as any other requirements are satisfied.<sup>65</sup> However, where it is “merely presented and solved by the claimed invention . . . and is not applied in any manner to physical elements or process steps, no amount of post-solution activity will render the claim statutory; nor is it saved by a preamble merely reciting the field of use of the mathematical algorithm.”<sup>66</sup> The Federal Circuit considered the use of the Freeman-Walter-Abele test in *In re Bilski*. It concluded that it was inadequate.<sup>67</sup> The court suggested that the test may conflict with the Supreme Court’s requirement in *Flook* that, when considering patent eligibility rather than “dissecting” and evaluating “individual limitations,” the claim as a whole should be evaluated.<sup>68</sup> In addition, the Federal Circuit previously held that a claim could be eligible under Section 101 even if this test has failed.<sup>69</sup> Thus, this test, like current interpretation of the machine-or-transformation test, would likely only serve as a “useful and important clue” in determining patent eligibility under Section 101.<sup>70</sup>

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<sup>62</sup> *In re Bilski*, 545 F.3d at 958–59. See *In re Abele*, 684 F.2d 902 (C.C.P.A. 1982); *In re Walter*, 618 F.2d 758 (C.C.P.A. 1980); and *In re Freeman*, 573 F.2d 1237 (C.C.P.A. 1978) for a complete review of the cases which developed this standard.

<sup>63</sup> *Abele*, 684 F.2d at 905.

<sup>64</sup> *Id.* at 907.

<sup>65</sup> *Id.* at 906.

<sup>66</sup> *Id.*

<sup>67</sup> *In re Bilski*, 545 F.3d at 959 (“Some may question the continued viability of this test, arguing that it appears to conflict with the Supreme Court’s proscription against dissecting a claim and evaluating patent-eligibility on the basis of individual limitations. . . . [W]e conclude that the Freeman-Walter-Abele test is inadequate.”) (emphasis omitted).

<sup>68</sup> *Id.*

<sup>69</sup> See *In re Grams*, 888 F.2d 835, 839 (Fed. Cir. 1989) (“Thus, though satisfaction of the Walter test necessarily depicts statutory subject matter, failure to meet that test does not necessarily doom the claim.”) (emphasis omitted).

<sup>70</sup> *Bilski v. Kappos*, 130 S. Ct. 3218, 3227 (2010).

## 2. *The Useful, Concrete, and Tangible Result Test*

The Federal Circuit developed the “useful, concrete, and tangible result” test,<sup>71</sup> most commonly associated with the case *State Street Bank & Trust Co. v. Signature Financial Group*,<sup>72</sup> although originating in *In re Alappat*.<sup>73</sup> In applying *In re Alappat*, the Federal Circuit held in *State Street* that

the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces ‘a useful, concrete and tangible result’—a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.<sup>74</sup>

The court in *In re Alappat* focused the determination of an abstract idea on the distinction between a “disembodied mathematical concept” and a “specific machine to produce a useful, concrete, and tangible result.”<sup>75</sup> The Federal Circuit reconciled this standard with past Supreme Court decisions and explained the ultimate effect to be that “certain types of mathematical subject matter, standing alone, represent nothing more than *abstract ideas* until reduced to some type of practical application.”<sup>76</sup> This is so, because when a process is tied to a specific machine or otherwise transforming an item into something else, the result is likely to be “tangible” and “concrete.”<sup>77</sup> It is evident that the machine-or-transformation test originates from the useful, concrete, and tangible result test, but the Federal Circuit required more in declaring the machine-or-transformation test the sole test for determination of patent eligibility for processes.<sup>78</sup> The Federal Circuit stated that the useful, concrete, and

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<sup>71</sup> *In re Bilski*, 545 F.3d at 959.

<sup>72</sup> 149 F.3d 1368 (Fed. Cir. 1998).

<sup>73</sup> 33 F.3d 1526 (Fed. Cir. 1994).

<sup>74</sup> *State Street*, 149 F.3d at 1373.

<sup>75</sup> *In re Alappat*, 33 F.3d at 1544.

<sup>76</sup> *Id.* at 1543.

<sup>77</sup> *In re Bilski*, 545 F.3d 943, 959 (Fed. Cir. 2008).

<sup>78</sup> *See id.* at 954.

tangible result test may “provide useful indications,” but the “inquiry is insufficient” to be used in lieu of the machine-or-transformation test.<sup>79</sup>

### 3. *The Technological Arts Test*

The Federal Circuit discussed, but rejected, the technological arts test in *In re Bilski*, because neither the Supreme Court nor the Court of Customs and Patent Appeals had ever “explicitly adopted” its application.<sup>80</sup> The test defines “technological” as “characterized by the practical application of knowledge in a particular field.”<sup>81</sup> It presupposes that “innovations in business, finance, and the like easily qualify [as technological] because they represent practical applications of economic science”—unlike “liberal arts like English literature”—and are thus patent eligible under Section 101.<sup>82</sup> Due to the wide range of interpretation and definition of the term technological, application of this test would most likely be “both ambiguous and ever-changing.”<sup>83</sup>

As a consequence of the Court’s decision in *Bilski v. Kappos*, many of the standards used by the Federal Circuit appear to be in play once again.<sup>84</sup> Although the exact relationship between the varying standards is not clear, it is clear that the machine-or-transformation test is back in the toolbox with these other tests.

## III. DISCUSSION OF BILSKI V. KAPPOS

### A. *The Patent Application*

The dispute in *Bilski v. Kappos* involved a determination of the patentability of United States Patent Application Serial No. 08/833,892 (Application).<sup>85</sup> The first claim of the Application was described and best illustrated by the Federal Circuit in *In re Bilski* as

a method of hedging risk in the field of commodities trading. . . . The claimed method envisions an

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<sup>79</sup> *Id.* at 959.

<sup>80</sup> *Id.* at 960.

<sup>81</sup> Brief of Regulatory Datacorp, Inc. et al. as Amici Curiae Supporting Neither Party, at 29–30, *In re Bilski*, 130 S. Ct. 3218 (2010) (No. 08–964), 2009 WL 2441070.

<sup>82</sup> *Id.*

<sup>83</sup> *In re Bilski*, 545 F.3d at 960.

<sup>84</sup> See generally Stefania Fusco, *In re Bilski: A Conversation with Judge Randall Rader and a First Look at the BPAI’s Cases*, 20 ALB. L.J. SCI. & TECH. 123 (2010).

<sup>85</sup> *In re Bilski*, 545 F.3d at 949.

intermediary, the “commodity provider,” that sells [a commodity] to the [consumer] at a fixed price, thus isolating the [consumer] from the possibility of a spike in demand increasing the price of [the commodity] above the fixed price. The same provider buys [the commodity] from [suppliers] at a second fixed price, thereby isolating the [supply companies] from the possibility that a drop in demand would lower prices below that fixed price. And the provider has thus hedged its risk; if demand and prices skyrocket, it has sold [the commodity] at a disadvantageous price but has bought [the commodity] at an advantageous price, and vice versa if demand and prices fall. *Importantly*, however, the claim is *not limited to transactions involving actual commodities*, and the application discloses that the recited transactions may simply involve options, i.e., rights to purchase or sell the commodity at a particular price within a particular timeframe.<sup>86</sup>

The remaining ten claims were similar to the first claim, so the Court’s analysis was focused on Claim 1.<sup>87</sup>

*B. The Procedural History of the Application*

The Application was entitled “Energy Risk Management Method” and was filed with the United States Patent and Trademark Office (PTO) by Bernard L. Bilski and Rand A. Warsaw on April 10, 1997.<sup>88</sup> The examiner rejected all eleven claims embodied in the Application, determining the invention was not “directed to the technological arts,” because it was an abstract idea, a “purely mathematical problem,” was not limited to a specific “practical application,” and “[was] not implemented on a specific apparatus.”<sup>89</sup>

Upon rejection, the applicants appealed to the Board of Patent Appeals and Interferences (the Board), but the patent examiner’s rejection was affirmed.<sup>90</sup> The Board agreed with the examiner’s result, but stated that

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<sup>86</sup> *Id.* at 949–50 (emphasis added).

<sup>87</sup> *Id.* at 949.

<sup>88</sup> *Ex parte Bilski*, No. 2002-2257, 1 n.1 (B.P.A.I. Sept. 26, 2006).

<sup>89</sup> *Id.* at 3 (internal quotations omitted).

<sup>90</sup> *Id.* at 1.

the examiner should not have relied on a technological arts test.<sup>91</sup> Rather, the rejection should have been made on the basis that, as claimed, the process did not produce a “useful, concrete and tangible result.”<sup>92</sup> The Board further suggested that “for non-machine-implemented method claims,” the approach in *In re Alappat*, namely the “transformation of physical subject matter test,” would be “more objective” in determining patent eligibility under Section 101.<sup>93</sup>

Following this defeat, the applicants appealed to the United States Court of Appeals for the Federal Circuit.<sup>94</sup> The appeal was originally argued before a panel of the court, but prior to disposition, the court initiated an en banc review.<sup>95</sup> As previously discussed, the Federal Circuit affirmed the Board’s decision to reject the Application<sup>96</sup> and established that the machine-or-transformation test was the sole test for determining the patent eligibility of processes under Section 101.<sup>97</sup>

The applicants’ appeals journey ended at the Supreme Court of the United States when *Bilski v. Kappos* was decided on June 28, 2010.<sup>98</sup> The Court affirmed the rejection of the Application.<sup>99</sup>

### C. *The Federal Circuit’s Decision in In re Bilski*

The Federal Circuit’s decision in *In re Bilski* resulted in five different opinions by the en banc hearing.<sup>100</sup> Interestingly, the Supreme Court instructed that “[s]tudents of patent law would be well advised to study these scholarly opinions.”<sup>101</sup> Although a detailed review would require its own article, it is prudent to understand the underpinnings of the machine-or-transformation test as articulated by the Federal Circuit and how the Federal Circuit concluded that it should be the sole test for process and business process method claims.

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<sup>91</sup> *Id.* at 62.

<sup>92</sup> *Id.* at 61.

<sup>93</sup> *Id.* at 65.

<sup>94</sup> *In re Bilski*, 545 F.3d 943, 949 (Fed. Cir. 2008).

<sup>95</sup> *Id.* at 949.

<sup>96</sup> *Id.* at 966.

<sup>97</sup> *Id.*

<sup>98</sup> *Bilski v. Kappos*, 130 S. Ct. 3218 (2010).

<sup>99</sup> *Id.* at 3231 (“[I]t is clear that petitioners’ application is not a patentable ‘process.’ . . . [I]t would effectively grant a monopoly over an abstract idea.”).

<sup>100</sup> *Id.* at 3224.

<sup>101</sup> *Id.*

The Federal Circuit addressed the question presented by attempting to determine when a process is a “new and useful process” under Section 101.<sup>102</sup> The court focused the determination on whether the claim cites a fundamental principal rather than a mental process.<sup>103</sup> If so, the inquiry should narrow, according to the court, into whether the use of an algorithm will “pre-empt substantially all uses of that fundamental principle if allowed.”<sup>104</sup> The court rejected an attempt at categorical exceptions, specifically in this case a “business method exception,” because business process method claims are “subject to the same legal requirements for patentability as any other process or method.”<sup>105</sup>

The Federal Circuit reiterated that “mental processes, like fundamental principles, are excluded by § 101 because [p]henomena of nature, though just discovered, *mental processes*, and abstract intellectual concepts . . . are the basic tools of scientific and technological work.”<sup>106</sup> To address the challenges faced by claims of this nature, particularly in light of the machine-or-transformation test, the court suggested that its case law represented “a measured approach” that is “faithful” to the Supreme Court’s concerns with the machine-or-transformation test, and “namely the prevention of pre-emption of fundamental principles.”<sup>107</sup>

The Federal Circuit relied on the Court’s precedent in *Benson*, *Diehr*, and *Flook* to articulate the machine-or-transformation test.<sup>108</sup> It stated that “[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.”<sup>109</sup> The Federal Circuit’s explanation of the test’s application in the context of fundamental principles is best left in the words of the court, which stated:

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<sup>102</sup> *In re Bilski*, 545 F.3d at 951 (internal quotations omitted).

<sup>103</sup> *Id.* at 952.

<sup>104</sup> *Id.* at 954.

<sup>105</sup> *Id.* at 960 (quoting *State St. Bank & Trust Co. v. Signature Fin. Group*, 149 F.3d 1368, 1375 (Fed. Cir. 1998)).

<sup>106</sup> *Id.* (citing *In re Comiskey*, 499 F.3d 1365, 1377 (Fed. Cir. 2007)) (internal quotations omitted).

<sup>107</sup> *Id.* at 962–63.

<sup>108</sup> *Id.* at 954 (demonstrating that the Federal Circuit gave the Court credit when it stated that the Court had “enunciated a 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”).

<sup>109</sup> *Id.*

A claimed process involving a fundamental principle that uses a particular machine or apparatus would not pre-empt uses of the principle that do not also use the specified machine or apparatus in the manner claimed. And a claimed process that transforms a particular article to a specified different state or thing by applying a fundamental principle would not pre-empt the use of the principle to transform any other article, to transform the same article but in a manner not covered by the claim, or to do anything other than transform the specified article.<sup>110</sup>

If either prong is satisfied, the claim will pass the machine-or-transformation test.<sup>111</sup> Further, “the use of a specific machine or transformation of an article must impose meaningful limits on the claim’s scope,” and the “involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity.”<sup>112</sup> Defending its ruling, the Federal Circuit stated that the Supreme Court’s precedent established exclusive application of the machine-or-transformation test.<sup>113</sup>

In applying the machine-or-transformation test, the Federal Circuit held that the applicant’s claimed process was not tied to a machine and did

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<sup>110</sup> *Id.*

<sup>111</sup> *Id.* at 961 (“The machine-or-transformation test is a two-branched inquiry; an applicant may show that a process claim satisfies § 101 either by showing that [the applicant’s] claim is tied to a particular machine, or by showing that [the] claim transforms an article.”).

<sup>112</sup> *Id.* at 961–62.

<sup>113</sup> *Id.* at 955–56.

[T]he Court explicitly stated in *Benson* that [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. And the Court itself later noted in *Flook* that at least so far it had 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.’ Finally, the Court in *Diehr* once again applied the machine-or-transformation test in its most recent decision regarding the patentability of processes under § 101.

*Id.* (internal citations and selected quotations omitted).

not meet the transformation requirements.<sup>114</sup> As a consequence, the claim was not patent-eligible.<sup>115</sup>

D. *The Supreme Court's Decision in Bilski v. Kappos*

The Supreme Court in *Bilski v. Kappos* granted certiorari to address the question the Court phrased as “whether a patent can be issued for a claimed invention designed for the business world.”<sup>116</sup> Ultimately, the issue was whether the machine-or-transformation test, as articulated by the Federal Circuit in *In re Bilski*, should be the sole test to determine the patent eligibility of processes under Section 101.<sup>117</sup> The Court answered the question in the negative, holding that “the machine-or-transformation test is a useful and important clue, an investigative tool” for eligibility determinations, but should not be the sole test applied by patent examiners or courts.<sup>118</sup> The Court rationalized its holding through a review of principles of statutory interpretation, prior precedent, and public policy.<sup>119</sup>

1. *Prior Precedent*

The Court determined that the Federal Circuit “incorrectly concluded that this Court has endorsed the machine-or-transformation test as the exclusive test.”<sup>120</sup> Recent cases such as *Benson* and *Flook* asserted that the transformation to a different state is a “clue,” and more importantly, “explicitly declined” to restrict patentability to the requirements of a machine-or-transformation test.<sup>121</sup> The Court dismissed the Federal

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<sup>114</sup> *Id.* at 963–64. The court reasoned that because “transformations or manipulations simply of public or private legal obligations or relationships, business risks, or other such abstractions cannot meet the test because they are not physical objects or substances, and they are not representative of physical objects or substances.” *Id.* at 963.

<sup>115</sup> *Id.* at 964. The claim at issue only referred to transactions involving legal rights, and along with its “failure to meet the machine implementation part of the test as well,” the claim “is not drawn to patent-eligible subject matter.” *Id.*

<sup>116</sup> *Bilski v. Kappos*, 130 S. Ct. 3218, 3223 (2010).

<sup>117</sup> *Id.*

<sup>118</sup> *Id.* at 3227.

<sup>119</sup> *See id.* at 3225–29. This review formed a substantial part of the Court’s opinion and is discussed in the forthcoming sections.

<sup>120</sup> *Id.* at 3226.

<sup>121</sup> *Id.* at 3227.

Circuit's holding and concluded that the machine-or-transformation test should be no more than an "investigative tool."<sup>122</sup>

## 2. *Statutory Interpretation*

The Court further challenged the argument that business process methods are "categorically outside" the scope of a process under Section 101 and thus unpatentable.<sup>123</sup> The Court found support in both the textual language of Section 101 and in other statutes.<sup>124</sup>

Sections 100 and 101's formulation of the term "process" includes the term "method" but does not provide additional insight into how far this term reaches into the realm of business process methods.<sup>125</sup> The Court discounted the conclusion that a business process method is exclusive of the term "method" in Section 101.<sup>126</sup> However, it did not conclusively settle the distinction and did not set forth a test to determine the extent to which business process methods can reach into the realm of a Section 101 method.<sup>127</sup>

The Court then looked beyond Section 101 and into Section 273 of the Patent Act, which allows an alleged infringer to counter the challenge with a defense of prior use.<sup>128</sup> The Patent Act provides that a method for the

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<sup>122</sup> *Id.*

<sup>123</sup> *Id.* at 3228.

Section 101 similarly precludes the broad contention that the term 'process' categorically excludes business methods. The term 'method,' which is within § 100(b)'s definition of 'process,' at least as a textual matter and before consulting other limitations in the Patent Act and this Court's precedents, may include at least some methods of doing business.

*Id.*

<sup>124</sup> *See id.*

<sup>125</sup> *Id.* *See also* 35 U.S.C. §§ 100–101.

<sup>126</sup> *Bilski*, 130 S. Ct. at 3228.

<sup>127</sup> *Id.* at 3228–29.

<sup>128</sup> *See* 35 U.S.C. § 273(b)(1) (2006). The Act states:

It shall be a defense to an action for infringement . . . 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.

*Id.*

purposes of defending charges of infringement is “a method of doing or conducting business.”<sup>129</sup> The Court applied a basic interpretive statutory canon which prevents interpretation of one provision from rendering another provision superfluous<sup>130</sup> and concluded that Section 273 would be rendered “meaningless” if business process methods were unpatentable.<sup>131</sup> The Court thereby declined to impose limitations inconsistent with the Patent Act’s text.<sup>132</sup>

### 3. *Public Policy and the Information Age*

The Court suggested that during the Industrial Age, the machine-or-transformation test may have been a comprehensive approach to patent eligibility, but “times change.”<sup>133</sup> The Court reaffirmed its position that the purposes of patent law would be frustrated by a “categorical rule denying patent protection for ‘inventions in areas not contemplated by Congress.’”<sup>134</sup> Unforeseen technological innovations, such as computer software, “progress in unexpected ways” and should be, at a minimum, eligible for consideration in the patent process.<sup>135</sup> For this reason, the Court found that the “uncertainty” created by the machine-or-transformation test in these fields made exclusive application incompatible with the policy objectives of encouraging and rewarding investment and innovation in the Information Age.<sup>136</sup> Further, application of the machine-or-transformation test risks error in the courts because it may shroud the “larger object of securing patents for valuable inventions without transgressing the public domain.”<sup>137</sup>

The Court did opine that the Information Age challenges patent law to “strik[e] the balance between protecting inventors and not granting

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<sup>129</sup> 35 U.S.C. § 273(a)(3) (2006).

<sup>130</sup> See *Corley v. United States*, 129 S. Ct. 1558, 1566 (2009) (quoting 2A NORMAN J. SINGER, STATUTES AND STATUTORY CONSTRUCTION § 46.06 (6th ed. 2000)).

<sup>131</sup> *Bilski*, 130 S. Ct. at 3228.

<sup>132</sup> *Id.* at 3231 (deciding the case under precedent on abstract ideas rather than “to impose limitations on the Patent Act that are inconsistent with the Act’s text”).

<sup>133</sup> *Id.* at 3227.

<sup>134</sup> *Id.* at 3227 (quoting *Diamond v. Chakrabarty*, 447 U.S. 303, 315 (1980)).

<sup>135</sup> *Id.*

<sup>136</sup> *Id.* (recognizing areas of “software, advanced diagnostic medicine techniques, and inventions based on linear programming, data compression, and the manipulation of digital signals”).

<sup>137</sup> *Id.*

monopolies over procedures that others would discover by independent, creative application of general principles.”<sup>138</sup> This is so, because the “possibility of innovation” has expanded and is being practiced by more possible inventors than ever before.<sup>139</sup> Consistent with the overall theme of its message, the Court was cautious to ensure that its words would not be used to “take a position on where that balance ought to be struck.”<sup>140</sup>

#### 4. *The Court’s Holding in Bilski v. Kappos*

Finding that the machine-or-transformation test was only a useful clue, the Court was faced with the task of determining whether the claim at bar was patent-eligible.<sup>141</sup> The claim did not appear to challenge the Court, which agreed unanimously that the claim was unpatentable.<sup>142</sup> Five Justices in *Bilski v. Kappos* found the claim to be “an unpatentable abstract idea,” much like those in *Benson* and *Flook*.<sup>143</sup> The Justices reduced the claim to one of mere “risk hedging” and warned that a patent would “pre-empt use of this approach in all fields and would effectively grant a monopoly over an abstract idea.”<sup>144</sup>

The four Justices who concurred in the judgment agreed that the claim was unpatentable, although they did not agree with how the majority reached that result.<sup>145</sup> Most importantly, they agreed that the machine-or-transformation test is not the exclusive test for patent eligibility.<sup>146</sup> On the question of patent eligibility, the Justices who concurred were concerned with use of precedent by the majority when they concluded that abstract ideas are not patentable.<sup>147</sup> They would have simply held “that petitioners’

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<sup>138</sup> *Id.* at 3228.

<sup>139</sup> *Id.*

<sup>140</sup> *Id.*

<sup>141</sup> *Id.* at 3229.

<sup>142</sup> *Id.* at 3229–30 (“Indeed, all members of the Court agree that the patent application at issue here falls outside of § 101 . . .”).

<sup>143</sup> *Id.* at 3231 (“Indeed, these claims add even less to the underlying abstract principle than the invention in *Flook* did, for the *Flook* invention was at least directed to the narrower domain of signaling dangers in operating a catalytic converter.”).

<sup>144</sup> *Id.*

<sup>145</sup> *Id.* at 3231–32 (Stevens, J., concurring).

<sup>146</sup> *Id.* at 3232.

<sup>147</sup> *Id.* (arguing that the majority has suggested that “any series of steps that is not itself an abstract idea or law of nature” could be a process, and that the effect of the majority’s language “can only cause mischief”).

method [was] not a ‘process’ because it describe[d] only a general method of engaging in business transactions—and business methods are not patentable.”<sup>148</sup> Interestingly, these Justices believed that the majority was perhaps too proactive in both defining a Section 101 “process” and in setting forth an applicable doctrine of abstract ideas.<sup>149</sup>

#### IV. ANALYSIS OF BILSKI V. KAPPOS

##### A. Strengths of the Court’s Decision

The Court’s decision in *Bilski v. Kappos* is both elementary and elegant. While revisiting its prior precedent, the Court mostly restated the rules it had set forth for evaluating process claims.<sup>150</sup> However, it also addressed some of the nuances of its prior holdings in light of developments in software and business process methods.<sup>151</sup> This was not the first time the Court addressed the effects of patent law on emerging technology and innovation.<sup>152</sup> This time, however, it may have given new weight to the era of the Information Age by reflecting on the relevance of the era on patent law itself.<sup>153</sup> The most noteworthy outcome, and the most simply stated, was the rejection of the exclusive use of the machine-or-transformation test.<sup>154</sup> Although the demise of the applicants’ claim became complete, the future of business process method patents was spared.<sup>155</sup>

##### 1. Sustaining Patentability for Business Process Methods

Although the Court in *Bilski v. Kappos* may have left practitioners with no new answers regarding exactly how to apply its precedent, it did recognize the need for the patentability of at least some business process methods.<sup>156</sup> This is necessary as both the Constitution and “Congress plainly contemplated that the patent laws would be given wide scope,”

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<sup>148</sup> *Id.*

<sup>149</sup> *Id.*

<sup>150</sup> *See id.* at 3225–27.

<sup>151</sup> *See id.* at 3229–31.

<sup>152</sup> *See id.* (discussing its prior precedent, the Court illustrates the approaches it had taken when faced with the patentability of technological advances).

<sup>153</sup> *Id.* at 3228 (noting that in the Information Age “[§] 101’s terms suggest that new technologies may call for new inquiries”).

<sup>154</sup> *Id.* at 3231.

<sup>155</sup> *Id.*

<sup>156</sup> *Id.* at 3229.

because “ingenuity should receive a liberal encouragement.”<sup>157</sup> Under this line of reasoning, the courts “should not read into the patent laws limitations and conditions which the legislature has not expressed.”<sup>158</sup> A categorization of eligible processes because of physical manifestation is not embodied in the Patent Act, and it “runs contrary to congressional intent.”<sup>159</sup>

Recognizing this, the Court properly held that its precedent sufficiently restricts excessively broad scope through “well-established exceptions” such as abstract ideas, so the exclusive use of the machine-or-transformation test is unnecessary.<sup>160</sup> Thus, by not foreclosing patent-eligibility to business process methods, the Court in *Bilski v. Kappos* held true to its words in *Diamond v. Chakrabarty*.<sup>161</sup>

## 2. *Recognizing the Need for Innovation of Business Process Methods in the Information Age*

The Court has articulated the necessary balance that ensues when attempting to “promote the Progress of Science and the useful Arts,”<sup>162</sup> which may run contrary to free market principles:<sup>163</sup>

The monopoly privileges that Congress may authorize are neither unlimited nor primarily designed to provide a special private benefit. Rather, the limited grant is a means by which an important public purpose may be achieved. It is intended to motivate the creative activity of authors and inventors by the provision of a special reward, and to allow the public access to the products of their genius after the limited period of exclusive control has expired.<sup>164</sup>

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<sup>157</sup> *Diamond v. Chakrabarty*, 447 U.S. 303, 308–09 (1980) (internal quotations omitted).

<sup>158</sup> *Id.* at 308 (internal quotations omitted).

<sup>159</sup> Michael A. Shimokaji & Philip L. Gahagan, *Mind over Matter: The Bilski Decision, like Others Before It, Reveals How Courts Have Frequently Kept Patent Law Lagging Behind Technology*, 32 L.A. LAW. 36, 39 (Apr. 2009).

<sup>160</sup> *Bilski*, 130 S. Ct. at 3226, 3231.

<sup>161</sup> 447 U.S. 303, 308 (1980).

<sup>162</sup> U.S. CONST. art. I, § 8.

<sup>163</sup> *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 429 (1984).

<sup>164</sup> *Id.*

Ultimately, the end goal is the “positive effect on society through the introduction of new products and processes.”<sup>165</sup>

The machine-or-transformation test inherently limits business process patentability.<sup>166</sup> By reducing the applicability of the test, particularly as applied to inventions in the Information Age, the Court protected innovation in areas such as software development.<sup>167</sup> The Court made specific and explicit notice of the distinguishing characteristics of inventions in the Information Age compared to those of the Industrial Age.<sup>168</sup> The Court’s decision in *Bilski v. Kappos*, at a minimum, sustained the status quo and may, through specific recognition of the Information Age, serve to expand patent protection for innovations in modern sciences.

Without this protection, the underlying rationale of the patent system would be frustrated. The end goal in granting patents is to benefit society,<sup>169</sup> but if faced with no possibility of receiving a patent, individuals and businesses in the Information Age are left with less motivation to innovate and compete due to the increased risks of exposure and pirating of their ideas.<sup>170</sup> Society, in turn, may then suffer the most.

As the Court recognized, application of the machine-or-transformation test would impose a major obstacle to innovation.<sup>171</sup> Thus, by distinguishing innovation from the Information Age, the Court accomplished more than to just restore the test to its rightful position among the other tests. It placed a specific limit on the role of the machine-

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<sup>165</sup> *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480 (1974).

<sup>166</sup> *Bilski v. Kappos*, 130 S. Ct. 3218, 3229 (2010).

<sup>167</sup> *Id.* at 3227.

<sup>168</sup> *Id.* (The Industrial Age presented “inventions grounded in a physical or other tangible form” while the Information Age involves “inventions based on linear programming, data compression, and the manipulation of digital signals.”).

<sup>169</sup> *Kewanee Oil*, 416 U.S. at 480.

<sup>170</sup> Paul E. Schaafsma, *The Case for Financial Product Patents: What the Supreme Court Got Right and Wrong in Bilski v. Kappos, and a Suggestion for a Reasonable Line on Business Method Patents*, 92 J. PAT. & TRADEMARK OFF. SOC’Y 398, 420 (2010) (questioning why entrepreneurs would incur the costs and risks of financial product innovation without patent protection).

<sup>171</sup> *Bilski*, 130 S. Ct. at 3227–28 (“[I]n deciding whether previously unforeseen inventions qualify as patentable ‘process[es],’ it may not make sense to require courts to confine themselves to asking the questions posed by the machine-or-transformation test. Section 101’s terms suggest that new technologies may call for new inquiries.”).

or-transformation test when evaluating inventions of the Information Age.<sup>172</sup>

*B. Weaknesses of the Court's Decision*

The Court in *Bilski v. Kappos* preserved the possibility of patent protection for business process methods in light of the realities of the Information Age and competing policy concerns.<sup>173</sup> However, it fell short of providing a clear measure for patent examiners, applicants, and the courts. In its efforts to limit the effects of the machine-or-transformation test, the Court provided no new direction with respect to a proper test, no guidance as to how to reconcile existing precedent, and no outline of the contours of Section 101 of the Patent Act.<sup>174</sup>

1. *Suggesting a Proper Test*

If the machine-or-transformation test is only a useful tool and not the exclusive test—premised on the conclusion that business process methods are patent eligible—the next logical question must be: When is a business process method patentable? In finding that a business process method is patent eligible, at least to some undefined degree, the Court set out to address the concerns that arise in this context, particularly with regard to “vagueness and suspect validity.”<sup>175</sup> Due to the rate of technological progress in the modern Information Age, the Court recognized the need for a bar high enough to satisfy the policy objectives of patent law.<sup>176</sup> A low

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<sup>172</sup> *Id.* at 3227 (stating the machine-or-transformation test is not the sole test in determining patent eligibility, but rather is merely a useful and important indication of patentability).

<sup>173</sup> *Id.* at 3228 (“It is important to emphasize that the 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.”).

<sup>174</sup> *See id.* at 3231 (holding only that prior precedent did not support application of the machine-or-transformation test as the sole test).

<sup>175</sup> *Id.* at 3229.

<sup>176</sup> *Id.* (“The Information Age empowers people with new capacities to perform statistical analyses and mathematical calculations with a speed and sophistication that enable the design of protocols for more efficient performance of a vast number of business tasks.”).

bar, it suggested, would flood the PTO with claims and “chill” creativity and progress.<sup>177</sup>

At what could have been the pinnacle of the Court’s decision, those hoping for a golden nugget were left holding an old copper penny. To answer this question, the Court deferred to prior “precedents on the unpatentability of abstract ideas.”<sup>178</sup> While the holding in *In re Bilski* served to entice the Court into addressing the matter, the facts of the case may have held back progress into the development of a comprehensive method for deciding cases involving business process methods. From the Court’s unanimous perspective, there remained little room for argument that the claim was anything but abstract.<sup>179</sup> In deciding the case narrowly under *Benson*, *Flook*, and *Diehr*,<sup>180</sup> the Court did not provide clear guidance that is useful to the courts below or patent examiners, while leaving the door open for the future of business process methods in the patent landscape.

Notably, the Court did challenge the courts below to define a “narrower category or class of patent applications that claim to instruct how business should be conducted, and then rule that the category is unpatentable” on the basis that it deals with abstract ideas.<sup>181</sup> While this challenge appeared to pass the buck, the Court also suggested that the rules barring abstract ideas may be applied categorically against business process methods instead of on a case-by-case basis.<sup>182</sup> Although it was not the golden nugget practitioners may have desired, it provided at least some prospect that an attempt to deal with business process methods through categorization could provide a greater degree of certainty. What remains to be determined is how these categories should be drawn.

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<sup>177</sup> *Id.* (“If a high enough bar is not set when considering patent applications of this sort, patent examiners and courts could be flooded with claims that would put a chill on creative endeavor and dynamic change.”).

<sup>178</sup> *Id.*

<sup>179</sup> *See id.* at 3231. “Hedging is a fundamental economic practice long prevalent in our system of commerce and taught in any introductory finance class.” *Id.* (quoting *In re Bilski*, 545 F.3d 943, 1013 (Fed. Cir. 2008) (Rader, J., dissenting)).

<sup>180</sup> *Id.* at 3229–30.

<sup>181</sup> *Id.* at 3229.

<sup>182</sup> *See id.*

## 2. *Guidelines for Future Decisions*

The Court maintains the machine-or-transformation test as a useful tool, particularly as applied to processes comparable to those from the Industrial Age.<sup>183</sup> It recognized the impact on innovation in both general business processes and briefly carved out additional considerations for applications of the Information Age.<sup>184</sup> Consequently, by carving out this distinction, the Court leaves limited guidance for future patent examiners and lower courts. With the array of approaches from the Court and Federal Circuit available, practitioners are left to speculate the proper test for the claim.<sup>185</sup>

Tasked with prosecuting patent applications, the Patent and Trademark Office issued a memo to its patent examiners the same day that *Bilski v. Kappos* was decided.<sup>186</sup> In an attempt to create some clarity, the memo served to provide initial guidance to the examiners regarding implementation of the Court's decision.<sup>187</sup> The PTO directed that

[e]xaminers should continue to examine patent applications for compliance with section 101 using the existing guidance concerning the machine-or-transformation test as a tool for determining whether the claimed invention is a process under section 101. If a claimed method meets the machine-or-transformation test, the method is likely patent-eligible under section 101 unless there is a clear indication that the method is directed to an abstract idea. If a claimed method does not meet the machine-or-transformation test, the examiner should reject the claim under section 101 unless there is a clear indication that the method is not directed to an abstract idea. If a claim is rejected under section 101 on the basis that it is drawn to an abstract idea, the applicant then has

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<sup>183</sup> *Id.* at 3227.

<sup>184</sup> *Id.*

<sup>185</sup> See Orion Armon & Eamonn Gardner, *Practical Advice on Drafting Method Claims That Satisfy 35 U.S.C. § 101 After Bilski v. Kappos*, 14 J. INTERNET L. 1, 3 (Sept. 2010).

<sup>186</sup> Memorandum from Robert W. Bahr, Acting Assoc. Comm'r for Patent Examination Policy, United States Patent and Trademark Office, to the Patent Examining Corps re Supreme Court Decision in *Bilski v. Kappos* (June 28, 2010) available at [http://www.uspto.gov/patents/law/exam/bilski\\_guidance\\_28jun2010.pdf](http://www.uspto.gov/patents/law/exam/bilski_guidance_28jun2010.pdf).

<sup>187</sup> *Id.*

the opportunity to explain why the claimed method is not drawn to an abstract idea.<sup>188</sup>

Although the proposed application seems to follow the logic of the Court's application in *Bilski v. Kappos*, it has shortcomings. This is evidenced by an indication in the memo that further direction would be forthcoming.<sup>189</sup> The suggested approach is a very literal application, using the machine-or-transformation test to rule "in" claims rather than rule them "out."<sup>190</sup> By using this as a starting point, it also misses the effect of the Court's distinctions between inventions in the Information Age and those of the Industrial Age. Lastly, it is too narrowly focused on the abstract determination and machine-or-transformation test, thus risking distracting an examiner from recognizing patent eligibility under other precedent.<sup>191</sup>

Insight into how the lower courts will decide cases involving process method patents, to date, is limited. Upon deciding *Bilski v. Kappos*, the Court vacated and remanded another case to the Federal Circuit involving the machine-or-transformation test.<sup>192</sup> In *Prometheus Laboratories v. Mayo Collaborative Services*,<sup>193</sup> the Federal Circuit first held that claimed method process claims involving medical treatment were patent-eligible under the machine-or-transformation test, and on remand, it again held that Prometheus's method claims were patentable subject matter.<sup>194</sup> It first pointed out that the Court in *Bilski v. Kappos* "did not disavow" the machine-or-transformation test.<sup>195</sup> As the proper test, the Federal Circuit deferred to prior precedent as well as the machine-or-transformation test.<sup>196</sup> The court held that in light of *Diehr*, the claims did not preempt all uses of

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<sup>188</sup> *Id.*

<sup>189</sup> *Id.*

<sup>190</sup> *See id.* (directing examiners to first apply the machine-or-transformation test).

<sup>191</sup> *See id.* (instructing only the use of the machine-or-transformation test or a determination of whether the claim is abstract).

<sup>192</sup> *Prometheus Labs., Inc. v. Mayo Collaborative Servs.*, 628 F. 3d 1347, 1349 (Fed. Cir. 2010).

<sup>193</sup> 628 F.3d 1347 (Fed. Cir. 2010).

<sup>194</sup> *Id.*

<sup>195</sup> *Id.* at 1349, 1352–53.

<sup>196</sup> *Id.* at 1354 (“[T]his case turns on whether [the] asserted claims are drawn to a natural phenomenon, the patenting of which would entirely preempt its use as in *Benson* or *Flook*, or whether the claims are drawn only to a particular application of that phenomenon as in *Diehr*.”).

natural correlations.<sup>197</sup> Under *In re Bilski* and the machine-or-transformation test, the claim involved a transformation “central to [its] purpose.”<sup>198</sup> Furthermore, under *Flook* the claim was “not merely insignificant extra-solution activity.”<sup>199</sup> The Federal Circuit remained convinced that the machine-or-transformation test led to a “clear and compelling conclusion” that the claims remained patent-eligible,<sup>200</sup> but bolstered its finding with authority rooted in prior precedent.<sup>201</sup> The result is much the same. Each precedent remains a “useful clue” that may function independently or interchangeably, but no clear application has emerged.

With only limited direction from the Court as to the proper test to apply, the courts and practitioners find themselves not far from where they were before the decision. Although the PTO has provided some guidance, it appears to be no more instructive than the Court’s decision itself, and may actually convolute the intent of the Court. Guidance from the Federal Circuit is limited, so one is left to wait and see how the Federal Circuit and Supreme Court rule in subsequent decisions.

### 3. *Diminishing the Role of Section 101*

The Supreme Court may also have further undermined the significance of the gate-keeping role of Section 101. It stated that “even if” a business process method falls within a Section 101 process, “that does not mean that the [patent] should be granted.”<sup>202</sup> Although these words support a literal understanding of patent prosecution, the tone and context suggest more.

The Court indicated that additional requirements may be unnecessary, because the requirements of the Patent Act itself may determine the patent’s ineligibility.<sup>203</sup> While this may be true, it may not always be the case because some claims that would otherwise be unpatentable may meet the subsequent requirements.

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<sup>197</sup> *Id.* at 1355.

<sup>198</sup> *Id.* (internal quotations omitted).

<sup>199</sup> *Id.* at 1357 (quoting *Parker v. Flook*, 437 U.S. 584, 590 (1978)).

<sup>200</sup> *Id.* at 1355.

<sup>201</sup> See *supra* text accompanying notes 196 and 199.

<sup>202</sup> *Bilski v. Kappos*, 130 S. Ct. 3218, 3229 (2010).

<sup>203</sup> See *id.*

More importantly, however, the PTO is inundated with more applications than ever.<sup>204</sup> As a consequence, an efficient gate-keeping process is necessary now more than ever before to ensure that legitimate applications receive the proper amount of consideration. Moreover, certainty in the eligibility of patent application claims can serve to minimize the number of ineligible applications and make the PTO's workload more manageable.<sup>205</sup> The Court is not conclusive as to whether the importance of Section 101 has been affected, but the potential impact could have far-reaching consequences to the PTO, practitioners, and patent applicants.

## V. CONCLUSION

The Supreme Court faced a question critical to the future patentability of business process methods in *Bilski v. Kappos*.<sup>206</sup> The claims resembled a commonly known strategy to hedge risks in the investment market.<sup>207</sup> The Court properly dismissed the claims as ineligible under Section 101 of the Patent Act.<sup>208</sup> For a reason different from the Federal Circuit, it held that the claims represented only abstract ideas.<sup>209</sup> More importantly, the Court held that the machine-or-transformation test should not be the sole test for patent-eligibility determinations under Section 101.<sup>210</sup>

Upholding the Federal Circuit's decision in its entirety would have meant the end of any patent application including a process that could not

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<sup>204</sup> In the last thirty years, the volume of annual applications received by the PTO has increased almost 450%. See U.S. PATENT AND TRADEMARK OFFICE, U.S. PATENT STATISTICS, CALENDAR YEARS 1963–2011 (2011). In 1979, the PTO fielded 108,209 total applications; by 2009 the number had increased to 482,871 total applications. *Id.* In fact, the increase alone in applications between 1999 and 2009 exceeded the total number of applications received a decade prior in 1989. *Id.*

<sup>205</sup> See Gene Quinn, *USPTO Sends Memo to Examiners Regarding Bilski v. Kappos*, IPWATCHDOG.COM (June 28, 2010, 5:38 PM), <http://ipwatchdog.com/2010/06/28/uspto-memo-to-examiners/id=11439/> (“In order for the Patent Office to manage its docket and its workforce there needs to be some kind of guidance given, and despite what the Supreme Court thinks that cannot be to tell the Examining Corps to take it on a case-by-case basis.”).

<sup>206</sup> *Bilski*, 130 S. Ct. at 3218.

<sup>207</sup> *Id.* at 3223.

<sup>208</sup> See 35 U.S.C. § 101 (2006) (requiring a “process, machine, manufacture, or composition of matter, or any new and useful improvement thereof”).

<sup>209</sup> *Bilski*, 130 S. Ct. at 3230–31.

<sup>210</sup> *Id.* at 3227.

meet the strict confines of the machine-or-transformation test. The claims in *Bilski v. Kappos* themselves may have been a clear loser in this case, but the Court's decision garnered substantial interest from the patent and legal communities and from private sector organizations with a clear interest at stake in seeking protection for their investments in developing innovations in the Information Age.<sup>211</sup> The claims at issue did not illustrate effectively why the protection of certain business process methods is necessary, but the Court made explicit the importance of protecting parties in light of evolving technology.<sup>212</sup> The Court revisited three of its prior cases that the Federal Circuit primarily relied on when declaring the machine-or-transformation test the sole test and articulated why they support a different result.<sup>213</sup> Expressing a desire to avoid narrowing the scope of the Patent Act's text, the Court declared that the machine-or-transformation test should only be applied as a part of the equation when determining the patentability of business process method claims.<sup>214</sup>

The Court's decision has its strengths and weaknesses, and leaves many questions unanswered. Most important, the future of the patent-eligibility of business process methods was spared by the rejection of the exclusive use of the machine-or-transformation test.<sup>215</sup> The Court also provided an important discussion of the need for innovation of business process methods in the Information Age,<sup>216</sup> the full impact and understanding of which may not yet be fully understood. It recognized the detrimental impact that exclusive application of the machine-or-transformation test had on innovation and the necessary balance between public policy and commercial monopolies.<sup>217</sup> However, in ruling out the exclusive application of the machine-or-transformation test, the Court failed to provide a clear method for practitioners and courts to follow when applying the test in concert with prior precedent.<sup>218</sup> Moreover, the Court's suggestion—that failing to reject a claim under Section 101 is not

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<sup>211</sup> The case produced scores of amicus briefs from parties with an interest in the Court's decision. *Docket for 08-964*, SUP. CT. U. S., <http://www.supremecourt.gov/Search.aspx?FileName=/docketfiles/08-964.htm> (last visited Feb. 16, 2011).

<sup>212</sup> *See Bilski*, 130 S. Ct. at 3232.

<sup>213</sup> *See id.* at 3229–31 (reviewing *Benson*, *Diehr*, and *Flook*).

<sup>214</sup> *See id.* at 3231.

<sup>215</sup> *Id.*

<sup>216</sup> *Id.* at 3227.

<sup>217</sup> *Id.* at 3228.

<sup>218</sup> The Court simply deferred to prior precedent addressing abstract ideas. *Id.* at 3229.

detrimental because it is likely to fall victim to other patent requirements—may undermine the importance of the eligibility determination.<sup>219</sup>

The Court's opinion in *Bilski v. Kappos* may have left all parties with the same feeling that a moviegoer experiences when leaving a movie that has no definite ending. While the positive effects outweigh the opinion's weaknesses, all parties must now wait for the sequel before the consequences of the Court's opinion are fully understood.

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<sup>219</sup> *See id.*

