

No. 2007 – 1130
(Serial No. 08/833,892)

United States Court of Appeals
For the Federal Circuit

IN RE BERNARD L. BILSKI

AND

RAND A. WARSAW,

Appellants.

**Appeal From The United States Patent And Trademark Office
Board Of Patent Appeals And Interferences.**

**BRIEF OF AMICUS CURIAE
AMERICAN INTELLECTUAL PROPERTY LAW ASSOCIATION
IN SUPPORT OF APPELLANTS FOR HEARING EN BANC**

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United States Court of Appeals for the Federal Circuit

IN RE BILSKI

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CERTIFICATE OF INTEREST

Counsel for amicus curiae, the American Intellectual Property Law Association, certifies the following:

1. The full name of every party or amicus represented by me is:

AMERICAN INTELLECTUAL PROPERTY LAW ASSOCIATION.
2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is:

NOT APPLICABLE.
3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are:

NONE.
4. X There is no such corporation as listed in paragraph 3.
5. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by this firm in the trial court or agency or are expected to appear in this court are:

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STATEMENT OF INTEREST OF AMICUS CURIAE

The American Intellectual Property Law Association (“AIPLA”) is a national bar association of more than 17,000 members engaged in private and corporate practice, in government service, and in the academic community.

AIPLA represents a wide and diverse spectrum of individuals, companies, and institutions involved directly and indirectly in the practice of patent, trademark, copyright, and unfair competition law, as well as other fields of law affecting intellectual property. AIPLA members represent both owners and users of intellectual property. By Order dated February 15, 2008, the Court provided that amicus briefs will be due 30 days after the filing of the parties’ supplemental briefs and without leave of court.

ARGUMENT

I. INTRODUCTION

The path of innovation is unknown and unpredictable. The Twentieth Century Industrial Age saw the invention of machines no one could have imagined just a century before. Now, this century is primed for the development of the Information Era. Operations that were performed on room-sized machines now are done on home computers. Hand-cranked mechanical computations are now performed on integrated circuit chips smaller than a fingernail. Frequently, there is no longer a physical structure responsible for these operations. One might describe them as ethereal or transient, effected by software in networks. Yet, this is the direction of today's innovation.

At the turn of the Twentieth Century, patent examiners had no idea what to do with many of the new electro-mechanical inventions arriving on their desks. Innovations such as the telephone were at first declared unpatentable subject matter.¹ Similarly, and until recently, the PTO treated software and internet related applications in much the same way. Yet, our patent system's ability to adapt to innovation has allowed this country to lead the industrial world.

¹ Sandra Szczerbicki, *The Shakedown On State Street*, 79 Or. L. Rev. 253 (2000) (internal citations omitted).

The framers of our Constitution understood the importance of rewarding inventors, for limited times, for their creative endeavors.² Those rewards have achieved their purpose only through a flexible rubric that promotes disclosure and changes with innovation. Both Congress and the Supreme Court have implemented the framers’ design by broadly drafting and applying the patent statute without technological exclusions, ready to embrace yet unknown innovations. “Congress intended statutory subject matter to ‘include anything under the sun that is made by man.’”³ For more than two centuries, the judiciary has “reconciled cutting-edge technologies with a statute, the language of which dates back to the beginning of the Republic.”⁴ In discharging its duties, the Patent and Trademark Office has always been asked to analyze the new and unusual, from Morse code, telephones, living organisms, business methods, to computer software.⁵

² U.S. Const., Art. 1, § 8, cl. 8.

³ *Diamond v. Diehr*, 450 U.S. 175, 182 (1981), quoting S. Rep. No. 979, 82d Cong., 5 (2d Sess. 1952); H.R. No. 1923, 82d Cong., 6 (2d Sess. 1952), U.S. Code Cong. & Admin. News 1952, pp. 2394, 2399.

⁴ *In re Nuijten*, 500 F.3d 1346, 1350 (Fed. Cir. 2008) (Linn, J., dissenting-in-part).

⁵ See, e.g., *O’Reilly v. Morse*, 56 U.S. (15 How.) 62 (1854); *The Telephone Cases*, 126 U.S. 1 (1898); *Diamond v. Chakrabarty*, 447 U.S. 303 (1980), *State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998); *AT&T Corp. v. Excel Commc’s, Inc.*, 172 F.3d 1352 (Fed. Cir. 1999); *In re Prater*, 415 F.2d 1378 (CCPA 1969).

Concerns that an invention is “overbroad” or even preposterous should be addressed substantively under section 112, then under sections 102 and 103. Of course this approach to examination requires more work than merely barring the door with subject matter exclusions. But it is the only approach that stands true to constitutional and congressional intent. Indeed, the most dangerous question society can ask about the patent system is “what technology should be barred from examination?” In a constitutional sense, we may as well be asking what kind of speech should be subject to prior restraint. There may be some, but the exception must be narrow and compelling, closely examined in the light of the cherished principle it constrains.

In the Information Era, as technology again ventures from the recognized into the unknown, under the time-tested mandates of the Constitution, innovation should be no less protectable than in previous eras of transition. “The sea-changes in both law and technology stand as a testament to the ability of law to adapt to new and innovative concepts, while remaining true to basic principles.”⁶

II. AIPLA’S ANSWERS TO THE COURT’S FIVE QUESTIONS

In this brief, and in the previous brief filed on April 30, 2007, AIPLA provides Answers to the Federal Circuit’s five Questions. This brief begins with

⁶ *AT&T Corp.*, 172 F.3d at 1356.

an analysis of general legal principles in response to Questions 2-5, and then applies those principles to Bilski's claim 1 in response to Question 1.

A. ANSWER 2: Diehr Sets Forth The Proper Standard For Determining Patent-Eligible Subject Matter For A Process Under Section 101

1. The Courts Have Fulfilled Congress's Intent to Construe Section 101 Broadly

Title 35, section 101 sets forth four separate categories of statutory subject matter: "any new and useful [1] *process*, [2] *machine*, [3] *manufacture*, or [4] *composition of matter*." 35 U.S.C. § 101 (emphasis and numbering added). Section 101 is written broadly and traditionally has been interpreted broadly. No legislative history or Supreme Court case law suggests limiting the subject matter of these four categories; in fact, the case law teaches the opposite. *See, e.g., Chakrabarty*, 447 U.S. at 315 (patentable subject matter includes "anything under the sun made by man.") (citations to legislative history omitted); *Diehr*, 450 U.S. at 182; *see also* AIPLA1 at 5-7. The Supreme Court decisions are clear in not excluding particular technologies, not even for a new or unusual type of process. *Diehr*, 450 U.S. at 182-83; *Parker v. Flook*, 437 U.S. 584, 590-91 (1978). Rather, the Supreme Court cases are based on the

facts of each case during those eras. *Id.*; see *Gottschalk v. Benson*, 409 U.S. 63, 71 (1972).⁷ This Court has followed that interpretation:

The plain and unambiguous meaning of § 101 is that ***any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may be patented if it meets the requirements for patentability set forth in Title 35.***

In re Alappat, 33 F.3d 1526, 1542 (Fed. Cir. 1994) (en banc) (emphasis added).

Within this broad edict, the Supreme Court also has recognized that certain basics, such as laws of nature, physical phenomena, and abstract ideas, exist in the public domain for all time. See, e.g., *Diehr*, 450 U.S. at 185. An inventor is not entitled to claim one of these basic principles in isolation because to do so would remove it from the public. *Id.* Yet, this protection of the public commons does not place limits or exclusions on the subject matter of the four specified categories of section 101; instead, it provides guidance to the decision-maker to prevent removal from the public of natural or scientific principles.

⁷ For example, in *Benson*, during a time when both Congress and the PTO had determined computer programs to be unpatentable, the Court held claims to a formula for converting BCD numerals using a computer unpatentable because that claim would wholly preempt the mathematical formula. Yet, the Court in *Benson* was clear that its holding did not apply to all computer programs: “It is said that the decision precludes a patent for any program servicing a computer. We do not so hold.” 409 U.S. at 72, see *Diehr*, 450 U.S. at 198 nn.10-11 (Stevens, J, dissenting).

2. “Process” Is One of the Four Separate Categories Set Forth in Section 101

This case addresses the first category of section 101: processes. “That a process may be patentable irrespective of the particular form of instrumentalities used, cannot be disputed.” *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1877).⁸ “If Congress wishes to remove some processes from patent protection it can enact such an exclusion.” *Arrhythmia Res. Tech., Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1064 (Fed. Cir. 1992) (Rader, J., concurring). Indeed, a central strength of the Patent Act has been its lack of specific subject matter exclusions, permitting broad judicial interpretation and leaving the door open for unforeseen innovations and technologies. *See, e.g.*, Robert Greene Sterne & Lawrence B. Bugaisky, *The Expansion of Statutory Subject Matter Under the 1952 Patent Act*, 37 AKRON L. REV. 217, 225 (2004). At this stage, after so much legislative and judicial interpretation, the “courts should not read into the patent laws limitations and conditions which the legislature has not expressed.” *Chakrabarty*, 447 U.S. at 308 (internal quotations and citations omitted).⁹

⁸ “Method and process claims are equivalents.” *In re Bergy*, 596 F.2d 952, 965 (CCPA 1979).

⁹ A detailed analysis of the expansive statutory language used by Congress and interpreted by the Supreme Court is in AIPLA1 at pages 5-7.

3. The Test Under *Diehr*

The Supreme Court has established the proper test for determining eligibility of processes under 35 U.S.C. § 101: Whether a process claim incorporating an abstract idea is statutory subject matter depends on whether the claimed process, when viewed as a whole, recites a practical and definite application of the abstract idea with a useful result. *See Diehr*, 450 U.S. at 188; *see also Flook*, 437 U.S. at 590-91.¹⁰

In reaching its decision in *Diehr*, the Court reviewed the Patent Statute, the legislative history, and prior case law and crafted a test for processes that was forward thinking and industry independent.¹¹ First, the Court relied upon *Mackay Radio* for the proposition that “a novel and useful structure created with the aid of knowledge of scientific truth may be” patentable. *Mackay Radio & Telegraph Co. v. Radio of Am.*, 306 U.S. 86, 94 (1939). The Court then applied *Funk Bros.* to point out that use of a “law of nature” within a claim does not, by

¹⁰ The invention must be considered as a whole because extraordinary inventions may come from the combination of ordinary and known elements. *See Diehr*, 450 U.S. at 193 (“The patents were warranted not by the novelty of their elements but by the novelty of the combination they represented.”) (quoting *Great A. & P. Tea Co. v. Supermarket Equip. Corp.*, 340 U.S. 147, 152 (1950)); *see also* PTO’s Brief (“PTOBr.”) at 15; *but see In re Comiskey*, 499 F.3d 1365, 1379 (Fed. Cir. 2007) (holding claims to a “method for mandatory arbitration resolution” unpatentable because one step, “determining an award or a decision for the contested issue,” could be performed mentally).

¹¹ A more detailed analysis of *Diehr* is set forth in AIPLA1 at 8-13.

itself, render the claim non-statutory: “[i]f there is to be invention from such a discovery, it must come from the *application of the law of nature to a new and useful end.*” *Funk Bros. Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948) (emphasis added). The Court reasoned that “[a]lthough we were dealing with a ‘product’ claim in *Funk Bros.*, the same principle applies to a process claim.” *Diehr*, 450 U.S. at 188, citing *Benson*, 409 U.S. at 68; *see also Cochrane*, 94 U.S. at 788.

In applying these principles to the claim in *Diehr*, the Court determined that, when viewed as a whole, the claimed process, including application of a recited equation, represented patent-eligible subject matter because it incorporated a more efficient solution. *Id.* at 188.

This Court has followed *Diehr* in many of its decisions, confirming the patent eligibility of processes. *See, e.g., AT&T*, 172 F.3d at 1352 (process for adding a data field into a message record patent eligible); *State Street* 149 F.3d at 1373-74 (data processing system for managing financial services); *Alappat*, 33 F.3d at 1542-43 (computer operating pursuant to software); *Arrhythmia*, 958 F.2d at 1057 (process for analyzing electrocardiograph signals). However, in some recent decisions, this Court has taken a narrower path to a determination on patentable subject matter that seems to contradict *Diehr*. *See, e.g., Nuijten*, 500 F.3d. at 1358-60 (claims reciting a signal without carrier not patent eligible

because the signal is neither a process nor a manufacture); *Comiskey*, 499 F.3d at 1371-72 (claims to a method for arbitration resolution not patent eligible).

4. Section 101 Eligibility Is Different Than the Required Analysis Under Sections 102, 103, and 112

Section 101 ends with the caveat that, even though a claim may be said to contain patentable subject matter, it still must satisfy the other requirements of sections 102, 103, and 112. “The understanding that these three requirements are *separate and distinct* is long-standing and has been universally accepted.” *Bergy*, 596 F.2d at 960 (emphasis in original). Judge Rich described them as doors that require separate keys. *Id.* at 960-62. In other words, simply because an invention contains patentable subject matter does not mean that a patent should issue. “The ‘novelty’ of any element or steps in a process or even of the process itself is a separate question to be considered under § 102 and is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.” *Diehr*, 450 U.S. at 188-89.

Section “101 was never intended to be a ‘standard of patentability’; the standards, or conditions as the statute calls them, are in § 102 and § 103.” *Bergy*, 596 F.2d at 963; *see also Diehr*, 450 US. at 189 (reinforcing that section 101 is a “general statement of the type of subject matter that is eligible for patent protection” and section 102 “covers in detail the conditions relating to novelty.”) (citations omitted). The legislative history is consistent. “Section 101

sets forth the subject matter that can be patented, ‘subject to the conditions and requirements of this title.’ The conditions under which a patent may be obtained follow, and Section 102 covers the conditions relating to novelty.” S. Rep. No. 1979, 82d Cong., 2d Sess., 5 (1952), U.S. Code Cong. & Admin. News, 1952, p. 2399. Once section 101 is satisfied, the inventor still must satisfy sections 102, 103 and 112 before he will be entitled to a patent. *See Bergy*, 596 F.2d at 960-62 (discussing separate doors for sections 102 and 103).

Critics of a broad reading of section 101 express concern that if the scope of patentable subject matter is not cabined, innovation will be reduced.¹²

However, these arguments disregard the other sections of the patent statute—the other doors in Judge Rich’s analysis that must be unlocked before a patent may issue. *See Bergy*, 596 F.2d at 960.

The profound truth underlying Congress’ broad statement of eligibility is that it fosters *more* innovation. Indeed, the foundation of our patent system is the notion that the lure of a United States Patent encourages creativity.¹³ Filing

¹² *See, e.g.*, Robert M. Kunststadt, *Sneak Attack on U.S. Inventiveness*, Nat’l L.J., Nov. 9, 1998 at A21 (complaining in the wake of *State Street*, “[i]t will be impossible to operate such businesses [advertising and marketing agencies] without advice from patent counsel”).

¹³ *See, e.g.*, Elon Gasper, *et al.*, *Software Patents Promote, Not Stifle, Creativity; Vital to Small Companies*, N.Y. TIMES, June 8, 1989, last visited Mar. 27, 2008, at: <http://query.nytimes.com/gst/fullpage.html?res=950DE0DF113CF93BA35755C0A96F948260>; Szczerbicki, at 279-80; Andrew
(continued...)

an application provides the applicant's *quid pro quo*—disclosure and ultimate publication—to the benefit of the public. Even if those applications do not issue as patents, the public benefits because of their dedication. A cramped reading of section 101 would discourage filings, and we would never know what the public lost without them.

Recognizing that section 101 opens only that first door to examination provides a lead toward resolving this Court's questions. The applicant still must open three more doors to sections 102, 103 and 112. *See, e.g., SmithKline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331, 1342, 1346 (Fed. Cir. 2005) (concluding that the claim at issue was directed to eligible subject matter under section 101, but holding the claim anticipated under section 102).

This approach also is compatible with the concerns Justice Breyer expressed in *Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc.*, 126 S. Ct. 2921 (2008) (Breyer, J., dissenting from dismissal for improvidently granted review) about the dangers to innovation of too many patents. As explained

(...continued)

Beckerman-Rodau, *The Supreme Court Engages in Judicial Activism in Interpreting the Patent Law in eBay, Inc. v. MercExchange, L.L.C.*, 10 TUL. J. TECH. & INTELL. PROP., 165, 199-200 (2007) (a strong patent system provides incentives for enterprises and capital to smaller enterprises; however, a weaker patent system allows existing dominant enterprises to avoid additional competition and by reducing the economic value of patents increases incentives for the dominant enterprises to infringe).

above, the issue is not the legitimacy of that danger but about which valve to adjust to effect the necessary control. In this case and in others, the appropriate valve is found in the “conditions for patentability,” i.e., where the claims are examined under sections 102, 103 and 112, not in the scope of subject matter under section 101, which would risk foreclosing valuable and unforeseeable future innovations.

5. Section 112, Rather Than Section 101, Guards Claim Scope

Section 101 is not intended to guard against overbroad claims. That function is performed by section 112 and based on the detail provided in the specification. Section 112 requires claims “particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.” 35 U.S.C. § 112, ¶ 2. For example, in *In re Foster*, 438 F.2d 1011 (CCPA 1971), the claims were held patent-eligible under section 101, but the court affirmed a section 112 rejection holding that the “claims are not commensurate with appellants’ own definition of what they are seeking to cover and thus go beyond that which ‘applicant regards as his invention,’” under section 112. *Id.* at 1016; *see also Prater*, 415 F.2d at 1403-04; *see AIPLA1* at 17.

Likewise, the Supreme Court’s analysis of the issue in *O’Reilly v. Morse* more closely tracks the language of today’s section 112 than section 101. 56 U.S. 62, 112-13. In *Morse*, the court held that “[w]e perceive no well-founded

objection to the *description* which is given of the whole invention and its separate parts, nor to his right to patent for the first seven inventions set forth in the *specification of his claims*. The difficulty arises on the eighth.” 46 U.S. at 112 (emphasis added). The Court held that claim 8 was too broad:

In fine he claims an exclusive right to use a manner and process which *he has not described* and indeed had not invented, and therefore *could not describe* when he obtained his patent. The court is of opinion that the *claim is too broad*, and not warranted by law.

Id. at 113 (emphasis added). Ultimately, *Morse* is not about statutory subject matter, but about the scope of the claims compared with the underlying description of the invention. Today we deal with that issue under section 112 in the form of written description and enablement.

B. ANSWER 3: An Abstract Idea Or Mental Process Does Not Render Claimed Matter Patent-Ineligible Unless The Claimed Matter Wholly Preempts Use Of That Idea Or Mental Process

The Supreme Court has explained that the prohibition on claiming abstract ideas prevents a patentee from preempting *all* practical applications of an abstract idea, but it also has emphasized that patentees should be able to exclude others from using an abstract idea as applied in a process with a particular useful and practical result. *Diehr*, 450 U.S. at 187-88; *see also Flook*, 437 U.S. at 590-91. According to the Supreme Court, what separates abstract ideas, scientific truths, or phenomena of nature from invention is the application

of the idea, truth or phenomena to “a new and useful end.” *Diehr*, 450 U.S. at 188 n.11 (quoting *Funk Bros.*, 333 U.S. at 130). The practical application of the idea to produce a useful result is eligible for examination under section 101. The idea itself is not eligible, nor is any claim that would preempt *all* practical applications of the idea. As this Court has since recognized, the claimed process in *Diehr* was patentable because, “although the process used a well-known mathematical equation, the applicants did not ‘pre-empt the use of that equation.’” *AT&T*, 172 F.3d at 1357 (quoting *Diehr*, 450 U.S. at 187).

In contrast to the patentable claims in *Diehr*, the claims at issue in the earlier *Benson* case failed this test. The *Benson* case demonstrates that a claim containing both mental and physical steps does not by that fact alone satisfy section 101. The claims in *Benson* were directed to a method of programming a computer to convert signals from binary coded decimal form into pure binary form. The Supreme Court rejected the claims because they were not limited in scope; indeed, “the patent would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself.” *Benson*, 409 U.S. at 71-72.

The Supreme Court also addressed claiming of abstract ideas in *Flook*. Although the Court concluded that the claims in *Flook* did not entirely pre-empt the mathematical formula at issue, it held that lack of preemption did not

necessarily establish eligibility as a process claim. 437 U.S. at 589. There also must be “some inventive concept in [the] application” of the formula. *Id.* at 594. The problem in *Flook* arose because the claim was not sufficiently definite and lacked specific utility. Like claim 8 in *Morse*, the claims in *Flook* did not recite a definite or novel application of the formula, which is an issue more appropriately addressed under sections 102, 103 and 112. “[W]hether a *particular* invention is novel is ‘wholly apart from whether the invention falls into a category of statutory subject matter.’” *Diehr*, 450 U.S. at 190 (quoting *Bergy*, 596 F.2d at 961) (emphasis added). Hence, in *Diehr*, *Flook*, and *Benson*, the Court has questioned whether the claim at issue (1) wholly preempted *all* practical applications of the claimed abstract idea, or (2) failed to provide some inventive concept in its application of the abstract idea, or (3) was novel. The first of these question is properly the subject of section 101, while the others are determined under sections 112 or 102.¹⁴

Hence, the distinction between mental and physical steps is not the touchstone of process patent eligibility under section 101 and is not presented in this case. Judicial interpretation of section 101 prohibits claims that would

¹⁴ This Court incorrectly suggested in *Comiskey* that “abstract ideas” are a form of process claim “subject matter” that requires limiting patentability of process claims. *Id.* at 1376. Abstract ideas are generally excluded from section 101. They can exist as any subject matter depending on the type of claim.

wholly preempt all applications of an abstract idea, but this should not prevent applicants from securing examination of a practical application of an idea that achieves a useful result.¹⁵

C. ANSWER 4: A Process Need Not Result In A Physical Transformation of An Article Or Be Tied To A Machine To Be Proper Under Section 101

While invention during most of the Twentieth Century encompassed machines, manufactures, and compositions of matter, today's innovations tend toward the digital, informational, less tangible, and less mechanistic. However, they are no less innovative because they are less "industrial." The drafters of the 1952 Patent Statute expressly included "process" as one of the four categories of subject matter eligible for patent protection. Yet today many would force these process inventions into the shells of machines or transforming articles. Such a requirement would not only be archaic; it would constitute an artifice, a distinction without a difference. The focus must always be on where the innovation resides. More importantly, requiring a process to result in a

¹⁵ In *Comiskey*, this Court held the process claim unpatentable as directed towards a "mental process." *Comiskey*, 499 F.3d at 1379. However, the PTO at oral argument in the present case conceded that the reference to "mental process" in *Comiskey* could only be supported by the "determining" step in the claim. Either, the Court in *Comiskey* did not base its decision on the claim as a whole, or *Comiskey* appears not to have been directed solely towards a mental process. See also *AT&T*, 172 F.3d at 1379 ("structural inquiry is unnecessary" for process claim).

“physical transformation of an article” or be “tied to a machine” in order to be patent-eligible under section 101 would hinder progress of the useful arts and would contravene the intent of both the framers of the Constitution and the drafters of the 1952 Patent Statute.

1. The Statute Does Not Require Physical Transformation of an Article or That a Process Be Tethered to a Machine

The PTO’s brief asserts that “Section 101 ‘Process’ Must Either Be Tied to a Particular Apparatus or Transform an Article to a Different State or Thing.” PTOBr. at 6, C.1. Yet, in the next eight pages of that subsection, the PTO does not cite to the statute.¹⁶ And its assertion is contrary to the uniform interpretation intended by Congress and given by the courts that section 101 should be interpreted broadly. As the Supreme Court stated in *Flook*, despite the argument from prior precedent that Section 101 requires a process to be tied to a particular apparatus, “we assume that a valid process patent may issue even if it does not meet one of these qualifications of our earlier precedents.” 437 U.S. 584, 588 n.9 (1978) (internal citation omitted). Indeed, the Supreme Court has consistently maintained that transformation of an article to a different form is only an *example* of statutory subject matter, not a requirement. *See, e.g., Diehr*, 450 U.S. at 184 (using “transformation” as an example of statutory subject

¹⁶ The PTO admits that the Supreme Court does not tie processes to a particular apparatus or transformation. *See, e.g.,* PTOBr. at 8.

matter denoted by “e.g.”); *Benson*, 409 U.S. at 70, 71 (transformation is a “clue”); *Flook*, 437 U.S. at 588 n.9. Transformation may be a sufficient condition in some cases, but it is not necessary.

This Court’s *AT&T* decision provides a crisp analysis of the issue. When a claim is “directed to a process in the first instance, a structural inquiry is unnecessary.” *AT&T*, 172 F.3d at 1359. If no structure is required, no “physical transformation” of that structure can be required.

As explained in *AT&T*, the unfounded suggestion that structural limitations are required may stem from the now antiquated *Freeman-Walter-Abele* (*F-W-A*) test, widely used prior to *Diehr* and prior to this Court’s en banc decision in *Alappat*. “After *Diehr* and *Chakrabarty*, the *Freeman-Walter-Abele* has little, if any, applicability to determining the presence of statutory subject matter.” 172 F.3d at 1374 (citations omitted). This Court in *AT&T* found the cases that rely on the physical limitations inquiry of *F-W-E* inapplicable. *Id.* at 1359-60 (distinguishing as inapposite: *In re Grams*, 888 F.2d 835, 839 (Fed. Cir. 1989); *In re Schrader*, 22 F.3d 290, 294 (Fed. Cir. 1994); *In re Warmerdam*, 33 F.3d 1354, 1359-60 (Fed. Cir. 1994).)¹⁷

¹⁷ *Comiskey* relied on *Grams*, *Schrader*, and *Warmerdam*, without comment on their post-*Diehr* and post-*Alappat* vitality. 499 F.3d at 1378-80.

On a more basic level, the requirement of a “physical transformation” is arbitrary and an attempt to oversimplify a complex analysis. As this Court has noted, a physical limitations analysis is of “little value” after *Diehr* and *Alappat*. *AT&T*, 172 F.3d at 1359. “The dispositive issue is not whether the claim recites on its face something more physical than just abstract mathematics. If it were, *Benson* and *Flook* would have come out the other way and *Diehr* would have been a very short opinion.” *Alappat*, 33 F.3d at 1557. In the Information Era, the limits on patent-eligible subject matter “should not depend on metaphysical distinctions such as those between hardware and software or matter and energy, but rather with the requirements of the patent statute.” *Nuijten*, 500 F.3d at 1367 (Linn, J., dissenting-in-part).

2. The Statute Does Not Require a Process to Be Tethered to Any Other Statutory Category

The PTO also asserts that the term “process” must somehow be linked to one of the other statutory categories recited in section 101, PTOBr. at 9, and therefore cannot stand on its own. A plain reading of section 101 does not permit such an interpretation: “any new and useful process, machine, manufacture, *or* composition of matter.” 35 U.S.C. § 101 (emphasis added). The statute does not require a “process” to be based on one of the other categories. The PTO claims that its argument places “processes” *in pari materia*; but in fact tying a “process” to one or more of the other statutory categories would make it

subservient to them. The PTO's argument makes no sense in light of the broad reading of section 101 required by Congress and applied by the courts. *See* Sec. II.A.1, above.

The PTO supports its analysis with *Comiskey*. 499 F.3d at 1378-79. Yet, that decision suffers the same flaws. The *Comiskey* opinion interpreted *Flook* as rejecting a "purely literal reading" of the process provision of section 101. *Id.* at 1375. If *Flook* so holds, *Comiskey* did not consider *Diehr's* affect on that holding of *Flook. Diehr*, 450 U.S. at 183. The *Comiskey* court required that a patent-eligible process be embodied in, operate on, or transform one of the other subject matter categories. 499 F.3d at 1378-89. Yet, such a conclusion does not square with the statute or the later *Diehr* decision. *See supra* Sec. II.A.3.

As the PTO acknowledges , transformation is only a "**clue** to the patentability of a process claim that does not include particular machines." *Diehr*, 450 U.S. at 184 (quotations omitted) (emphasis added); *compare Comiskey*, 499 F.3d at 1376 (including "only if" in transformation language). A clue; not a **requirement**. As the Supreme Court explained in *Benson*, we should not "freeze process patents to old technologies, leaving no room for the revelations of new, onrushing technology." 409 U.S. at 71; see also PTOBr. at 9.

D. ANSWER 5: Neither *State Street Bank* Nor *AT&T* Should Be Overruled In Any Respect

This Court’s decisions in *State Street* and *AT&T* are consistent with the principles the Supreme Court established in *Diehr*. Both cases properly recognize statutory subject matter in the practical application of abstract ideas or algorithms to produce a useful result.

1. *State Street*

In *State Street*, this Court laid to rest the so-called “business method” exception to statutory subject matter. *State Street*, 149 F.3d at 1375. As the Court explained, “[s]ince the 1952 Patent Act, business methods have been, and should have been, subject to the same legal requirements for patentability as applied to any other process or method.” *Id.*¹⁸

The Court began by noting that, “for the purposes of a § 101 analysis, it is of little relevance whether claim 1 is directed to a ‘machine’ or a ‘process,’ as long as it falls within at least one of the four enumerated categories of patentable subject matter, ‘machine’ and ‘process’ being such categories.” *Id.* at 1372. Following Supreme Court precedent, the Court further explained that unpatentable mathematical algorithms are those that constitute “disembodied

¹⁸ In 1999, in the American Inventors Protection Act, Congress recognized *State Street* and, rather than legislatively overruling it, amended the Patent Act to provide a ‘prior user defense’ for methods of “doing or conducting business.” See American Inventor’s Protection Act of 1999, sec. C; 35 U.S.C. § 273.

concepts or truths that are not ‘useful.’” *Id.* at 1373. “[T]o be patentable an algorithm must be applied in a ‘useful’ way.” *Id.*

Turning to the claim at issue in *State Street*, the Court held 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.

Id. (emphasis added). This holding is consistent with Supreme Court precedent and should stand without modification. However, to the extent that the holding of *State Street* might be applied to limit process claims, it should be clarified.

Unlike a pure “process” claim, *State Street* dealt with a machine that did undergo a transformation, and the Court observed that the “machine” “constitutes . . . ‘a useful, concrete and tangible result’” *Id.* Hence, the case should not be interpreted to imply that every ***process*** claim also must constitute a useful, concrete, ***and*** tangible result. First, Supreme Court precedent does not require both a concrete and tangible result. *See, e.g., Diehr*, 450 U.S. at 188. Indeed, a process claim is not required to have structure. *AT&T*, 172 F.3d at 1359; *see also* Sec. II.A.2. Second, *Arrhythmia*, even as interpreted by *State Street*, reveals that only one of the three adjectives is required: either a “useful,

concrete, *or* tangible thing—the condition of the patient’s heart.” *State Street*, 149 F.3d at 1368 (emphasis added); *see also Arrhythmia*, 958 F.2d at 1056.¹⁹

2. *AT&T*

In *AT&T*, this Court considered a method for use in a telecommunications system. *AT&T*, 172 F.3d at 1354. The method required including a primary interexchange carrier (PIC) indicator in a message record. *Id.* Although the PIC was derived from a simple Boolean mathematical principle, this did not remove the claimed method from section 101, “because AT&T does not claim the Boolean principle as such or attempt to forestall its use in any other application.” *Id.* at 1358.

The *AT&T* Court productively harmonized years of section 101 case law by reconciling the Supreme Court decisions in *Diehr*, *Flook* and *Benson*. Of special relevance to this case, *AT&T* recognized that references in *Diehr* and *Benson* to “physical transformation” were mere examples of a characteristic found in section 101-compliant process patent claims; it correctly held that transformation is not an “invariable requirement.” *Id.* at 1358-59.

AT&T also rejected the notion that the process claims were not directed to patentable subject matter because they lacked physical limitations. *Id.* at 1359.

¹⁹ AIPLA recognizes the challenges faced in examining business methods. Rather than close the door before examination, however, the answer lies in tighter examination and more creative development of prior art resources.

As the Court explained, “[s]ince the claims at issue in this case are directed to a *process* in the first instance, a structural inquiry is unnecessary.” *Id.* (emphasis added).

Finally, the Court recognized the shortcomings of the *F-W-A* type of physical limitations test. *Id.* (quoting *State Street*, 149 F.3d at 1374, and *Alappat*, 33 F.3d at 1544). *See* Section C.1, *supra*. Instead, in view of *Diehr*, *Alappat*, and *State Street*, the focus in evaluating a process claim under section 101 should be “not on whether there is a mathematical algorithm at work, but on whether the algorithm-containing invention, as a whole, produces a tangible, useful, result.” *Id.* at 1361. As in *State Street*, the Court’s holding in *AT&T* is consistent with *Diehr* and should stand without modification.

E. ANSWER 1: Bilski’s Claim 1 Satisfies Section 101 Because It Achieves A Practical And Useful Result

Claim 1 of the Bilski application recites patent-eligible subject matter, consistent with both section 101 and the decisions of the Supreme Court and this Court. The Claim does not fall within the judicial prohibitions on laws of nature. Claim 1 is directed to a process—a category expressly allowed by section 101. It satisfies the *Diehr* standard for a patentable process because it recites a practical application with a useful result. *See Diehr*, 450 U.S. at 188. For these reasons, claim 1 recites patent-eligible subject matter section 101 and should move on to the more stringent tests of sections 102, 103, and 112.

1. Claim 1 Does Not Fall Within a Judicial Exclusion on Patenting Laws of Nature or Purely Abstract Ideas

Claim 1 satisfies Supreme Court authority because it recites the application of an idea in a definite process to achieve a useful result. It is expressly directed to managing the consumption risks associated with commodities, as distinct from the risks associated with other purchases, such as insurance. Moreover, claim 1 recites a particular method of managing these risks. Therefore, it does not purport to extend to every use of the disclosed ideas, even if abstract. As in *Diehr*, the applicants do not seek to patent the “idea” of managing commodity consumption risk costs; the claim at issue only forecloses others from engaging in such management by means of the steps in the claimed process. As a result, claim 1 is eligible for examination under section 101.

The Board’s conclusion that the claims “cover (‘preempt’) any and every possibly way of performing the steps” is incorrect because the language of the claim plainly limits it to “initiating a series of transactions” between a commodity provider and a consumer. Slip Op. at 2. Based on its misguided conclusion of preemption, the Board further held that the claims are “directed to the ‘abstract idea’ itself, rather than a practical implementation of the concept.” Slip op. at 46. This circular reasoning cannot be reconciled with Supreme Court precedent, which requires that processes be examined even when they

incorporate abstract ideas, so long as they are presented as useful, practical applications. *See, e.g., Diehr*, 450 U.S. at 187-88.

In essence, claim 1 covers a method of conducting business. As this Court explained in *State Street*, business methods are entitled to “the same legal requirements for patentability as applied to any other process or method.” *State Street*, 149 F.3d at 1375; *see also* American Inventor’s Protection Act of 1999, sec. C; 35 U.S.C. § 273.

2. Claim 1 Satisfies The *Diehr* Test Because It Recites a Practical Application With a Useful Result

Claim 1 recites one of the four named categories of that section: it is a process for managing consumption risk costs of a commodity. Its three limitations define a method for managing consumption risk to provide a balanced position across a series of consumer transactions. Claim 1 satisfies the eligibility standard for a process claim, as summarized in *Diehr*:

Whether a process claim incorporating an abstract idea is statutory subject matter depends on whether the claimed process, when viewed as a whole, recites a practical application with a useful result.

See, e.g., Diehr, 450 U.S. at 188.

Proper application of the *Diehr* test here reveals that, even assuming that claim 1 incorporates abstract ideas, when viewed in its entirety, it is directed to a practical and definite application with a useful result, namely managing or

hedging commodity consumption risk costs. This utility is both specific and substantial in that it provides benefits for commodity consumers (in the form of cost predictability and potential cost savings), commodity providers (in the form of demand predictability and potential increased profits), and market participants (in the form of possible investment profits based on their counter-risk position to the commodity consumers). *See, e.g., State Street*, 149 F.2d at 1374. This conclusion represents only the starting place for examination, however; substantial questions exist concerning whether the claimed invention is novel (§ 102), nonobvious (§ 103), or sufficiently described and enabled (§ 112). The Court should not commit the *Comiskey* error in this case.

III. CONCLUSION

The Constitution, the Patent Statute, and Supreme Court jurisprudence all guide the Court in answering the core question in this appeal—whether business methods are patent-eligible. The rule is most clearly provided by *Diehr*. That is, applications claiming processes should be eligible for examination so long as they recite a practical application with a useful result. It does not matter that the subject matter is difficult to examine, or that the applicant appears to claim a trivial invention; sections 112, 102, and 103 provide the path for challenging an application to ensure the public benefit of the patent bargain.

The broad language of section 101, supported by the Constitution's mandate to Congress to "promote the useful arts," strongly suggests that judicial exceptions should be narrowly drawn. This principle finds particular application now, as we move from the Industrial to the Information Age. History shows that predicting the path of innovation is a fool's errand. History also shows the genius of our "open door" policy to motivating innovators through the patent process. This bedrock principle should not be compromised by the convenience of easy rejection of an entire class of applications. The holdings of *State Street* and *AT&T* should be confirmed.

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