No. 08-964

In The Supreme Court Of The United States

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

v.

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

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

BRIEF OF *AMICUS CURIAE* AMERICAN INTELLECTUAL PROPERTY LAW ASSOCIATION IN SUPPORT OF NEITHER PARTY

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QUESTIONS PRESENTED

Whether the Federal Circuit erred by holding that a "process" must be tied to a particular machine or apparatus, or transform a particular article into a different state or thing ('machine-or-transformation' test), to be eligible for patenting under 35 U.S.C. § 101, despite this Court's precedent declining to limit the broad statutory grant of patent eligibility for "any" new and useful process beyond excluding patents for "laws of nature, physical phenomena, and abstract ideas."

Whether the Federal Circuit's "machine-or-transformation" test for patent eligibility, which effectively forecloses meaningful patent protection to many business methods, contradicts the clear Congressional intent that patents protect "method[s] of doing or conducting business." 35 U.S.C. § 273.

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I. INTRODUCTION AND STATEMENT OF INTEREST OF *AMICUS CURIAE*[1]

Although Petitioners' patent application specifically relates to a "business method," the questions presented directly affect innovation in many other existing and unknown future types of technology. In fashioning a new and unprecedented rule, the Federal Circuit has restricted the threshold requirement for patent eligibility by excluding all processes unless they are tied to a machine or transform articles to a different form. The Federal Circuit test effectively curtails innovation in as yet unknown, future areas of discovery as well as disrupts settled expectations concerning issued patents in many existing technologies.

The American Intellectual Property Law Association ("AIPLA") is a national bar association of more than 16,000 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

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[1] This *amicus curiae* brief is presented by the American Intellectual Property Law Association under Supreme Court Rule 37.3(a). Petitioners have consented to the filing of this *amicus curiae* brief via blanket letter of consent on file with the Court dated June 9, 2009, and respondent has consented via a separate letter of consent dated June 12, 2009. In accordance with Supreme Court Rule 37.6, *amicus curiae* states that no counsel for a party authored any part of this brief. Only this *amicus curiae* made monetary contribution to the preparation and submission of this brief. Counsel for *amicus curiae* prepared this brief on a *pro bono* basis.

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.

AIPLA takes no position on the merits of Petitioners' alleged innovation and on whether their application ultimately should or should not receive a patent. AIPLA's sole interest is in the threshold rule of law for obtaining patent rights, and in ensuring that the patent law continues to provide the incentives that serve the Constitutional purpose of promoting the progress of science and the useful arts in accordance with Article I, Section 8.

In compliance with Rule 37 of this Court, AIPLA has notified and obtained the consent of both Petitioners and Respondent to file this amicus brief.

II. SUMMARY OF ARGUMENT

The first question presented, as in *Diamond v. Chakrabarty*, 447 U.S. 309 (1980), *Diamond v. Diehr*, 450 U.S. 180 (1981), and *J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred International, Inc.*, 534 U.S. 124 (2001), concerns the proper construction of Section 101 of the Patent Act, the section that extends patent *eligibility* (but, importantly, not *patentability*) to "*any* new and useful *process*, machine, manufacture, or composition of matter, or any new and useful improvement thereof, *subject to* the conditions and requirements of this title." 35 U.S.C. § 101 (emphasis added).

In the 1952 Patent Act, Congress added 35 U.S.C. § 100(b) to make clear that the term "process" in § 101 was intended to have a broad meaning that subsumed all antecedent terms, such as "art":

> The term "process" means process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material.

However, the Federal Circuit majority ignored the clear Congressional intent that any process be patent-eligible and instead, by misinterpreting this Court's precedents, held that to be patent-eligible under 35 U.S.C. § 101, any "process" *must first* (1) be tied to a particular machine or apparatus, or (2) transform a particular article into a different state or thing (the "machine or transformation" test). Pet. App. at 12a.

There is no support for a "machine or transformation" requirement found in the Patent Statute, or its legislative history. Instead, this test is derived from dictum and tied to the vocabulary of technologies developed in earlier ages, and thus is backward-looking and ill-fitted to future discoveries and technologies as yet unimagined.

The Federal Circuit majority reasoned that this Court's prior decisions *required* a "machine or transformation" as the single test for patent-eligibility of a process, art or method. Pet. App. at 12a, 16a-17a. In doing so, the Federal Circuit majority relied on descriptions in this Court's precedents, crafted in terms applicable to the technologies then at issue before the Court—such as

a process that "transformed" wheat into flour—but failed to recognize these descriptions were not intended as limitations to be applied to all future technological developments. Indeed, contrary to the Federal Circuit majority's conclusion, this Court has never imposed or suggested that "machine or transformation" should be the sole test for eligibility of processes. Even in decisions relied on by the Federal Circuit majority, this Court has repeatedly denied any such rigid limitation on process eligibility. In *Parker v. Flook*, 437 U.S. 584 (1978), this Court clearly stated that "a valid process patent may issue even if it does not meet one of these qualifications [transformation or machine-implementation] of our earlier precedents." *Id.* at 589 n.9; *see also Gottschalk v. Benson*, 409 U.S. 63, 71 (1972) ("We do not hold that no process patent could ever qualify if it did not meet with the requirements of our prior precedents.").

The issue of Federal law thus presented by the decision of the Federal Circuit is not limited to so-called "business method" patents but, as stated and now applied by both the Federal Circuit and the United States Patent and Trademark Office ("USPTO"), affects *every* "process" in *every* technology, including both existing technologies and those yet-to-be-discovered. Restricting eligibility to *only* those processes that are either tied to a specific machine or that transform a material, however, minimizes incentives for development of future and potentially very valuable technologies. As a result, the Constitutional purpose of promoting the progress of science and the useful arts likely will be undermined rather than served.

Remarkably, the majority acknowledged that recent advances in technology already have "begun to challenge" the suitability of its test. Pet. App. at 17a. Technologies already impacted by the Federal Circuit's "machine or transformation" test include processes relating to computer software (not tied to a specific machine), processes relating to the administration of medicines and therapeutic treatments, and even claims to "systems" and apparatus. Circuit Judge Newman observed in her dissenting opinion that the full extent of the "impact on the future, as well as on the thousands of patents already granted, is unknown." Pet. App. at 60a (Newman, J., dissenting).

Moreover, while broadly impacting many existing and future technologies, the majority's test does little or nothing to remedy its perceived "business method" issues since the application of the test, as suggested by the majority, raises more questions than it can answer. It thus fulfills no need and adds nothing useful to the fundamental principles that deny eligibility to "laws of nature, natural phenomena and abstract ideas."

The Federal Circuit's quest for "bright-line" tests could help ease the administrative burdens of the Patent Office, and to that extent is a worthy objective. However, fashioning a new and rigid eligibility test to be applied at the very door-step of the Office is misguided and inappropriate. It upsets settled expectations with respect to numerous existing patents. It contravenes the expressed intent of Congress and conflates patent eligibility with patent worthiness. The latter issue is better dealt

with by an exacting application of the conditions for patentability codified in 35 U.S.C. §§ 102, 103 and 112. Although the patent eligibility issue has been colored by public policy debates over patent quality and business methods, the answer is not to impose ill-fitting short cuts that restrict incentives for worthwhile future innovation. Instead, the answer to the need for "better patents" in all fields of endeavor is to provide the resources needed by the USPTO and require that it apply greater diligence to the task of strictly enforcing these conditions for patentability across all types of inventions.

III. ARGUMENT

A. The Federal Circuit's "Machine Or Transformation" Requirement Misinterprets This Court's Precedents

1. This Court's precedents neither hold nor suggest that, to be patent-eligible under Section 101, a process must result in a physical transformation or be tied to a machine

Relying primarily on four prior decisions of this Court – *Gottschalk v. Benson*, *Cochrane v. Deener*, *Parker v. Flook*, and *Diamond v. Diehr* – the Federal Circuit majority concluded that this Court established a definitive "machine or transformation" test for determining the patent eligibility of a

claimed process under § 101. Pet. App. at 12a-13a. However, this Court's precedents offers no support for the majority's conclusion. The precedents cited by the Federal Circuit majority neither holds nor suggests that a claimed process is patent-eligible *only* if "(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing." Pet. App. at 12a.

Gottschalk v. Benson, 409 U.S. 63 (1972), does not require a process be "tied to a particular machine" or "transform a particular article into a different state or thing" to be patent-eligible. In fact, *Benson* actually *declined* to adopt a "machine or transformation" test, stating: "It is argued that a process patent must either be tied to a particular machine or apparatus or must operate to change articles or materials to a 'different state or thing.' We do not hold that no process patent could ever qualify if it did not meet the requirements of our prior precedents." *Benson*, 409 U.S. at 71.

Indeed, in *Benson*, the Court did not consider the existence – or non-existence – of a "machine-or-transformation" in evaluating the patent-eligibility of a method of programming a computer with a mathematical algorithm to convert binary-coded decimal numerals. Instead, it concluded that the claimed method did not cover patent-eligible subject matter because it would "wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself." *Benson*, 409 U.S. at 72. The Court explained that there was "no substantial practical application [for the claimed method] except in connection with a digital

computer," *id.* at 71, and the claim "purported to cover any use of the claimed method in a general-purpose digital computer of any type." *Id.* at 64. Thus, based on the established principle that one cannot patent an abstract intellectual concept such as a mathematical expression, the Court held the claims in *Benson* unpatentable. *Id.* at 72.

The Federal Circuit majority's misplaced reliance on *Benson* is based primarily upon misinterpretation – and misapplication – of a single statement (made *in dicta*) 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." *See, e.g.*, Pet. App. at 12a. This "transformation and reduction of an article 'to a different state or thing'" language actually originated in the Court's opinion in *Cochrane v. Deener*, 94 U.S. 780 (1877). However, like *Benson*, *Cochrane* neither held nor suggested that, to be patent-eligible, a process *must* result in a physical transformation.

Instead, *Cochrane* considered whether a process for improving the qualities of superfine flour may be infringed irrespective of the physical mechanism used by the alleged infringer to effect the desired result of the process. *Id.* at 788. The patentee claimed that his invention was in the process itself, and "not limited to any special arrangement of machinery." *Id.* at 785. It was in the context of that level of technology (first separating the superfine flour and then purifying the flour-producing portions of the middling-meal prior to regrinding), and with that perspective, that

Cochrane characterized a "process" as "an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing." *Id.* at 788. Nothing in *Cochrane* suggested that, to be patent-eligible, every future "act or series of acts" *must* transform subject matter into a different state or thing.

Indeed, this Court in *Cochrane* stated the following: "That a process may be patentable, irrespective of the particular form of the instrumentalities used, cannot be disputed." 94 U.S. at 787. The "machine" branch of the "machine or transformation" test goes directly against this principle by requiring the inventor to include the particular instrumentalities in a claim to his new process.

The Federal Circuit majority's reliance on *Parker v. Flook*, 437 U.S. 584 (1978), is also misplaced. In *Flook*, the Court considered the patent-eligibility of a method for updating alarm limits used in catalytic conversion. *Flook*, 437 U.S at 585. The Court recognized that the only difference between the conventional methods and that described in the patent application was the use of a mathematical algorithm to calculate an updated alarm-limit value. *Id.* at 585-86. In response, the patent applicant argued that the presence of a claim limitation directed to "post-solution" activity – *i.e.*, subsequent adjustment of the alarm limit to the figure computed according to the claimed algorithm – distinguished the claim from one that merely defined a mathematical algorithm (like that found

unpatentable in *Benson*) and thus made the process patentable. *Id.* at 590.

The Court disagreed, concluding that one cannot make patentable an inherently unpatentable process simply by including a limitation directed to "post-solution" activity – "[t]he notion that post-solution activity, no matter how conventional or obvious in itself, can transform an unpatentable principle into a patentable process exalts form over substance." *Id.* at 590. When, considered as a whole, the claim is directed essentially to an unpatentable principle, the claim is not patent-eligible.

Flook thus rejected the application in question because it was "directed essentially to a method of calculating" and sought to patent the equivalent of a fundamentally non-patentable law of nature (a mathematical formula), 437 U.S. at 595-96, *not* because it failed to tie that formula to a particular machine or failed to transform a particular article into a different state or thing. Indeed, the Court again dismissed the notion that, to be patent-eligible, a process patent must be "tied to a particular apparatus or operated to change materials to a 'different state or thing.'" *Id.* at 589 n.9 (quoting *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1877)). "As in *Benson*, [this Court] assume[d] that a valid process patent may issue even if it does not meet one of these qualifications of our earlier precedents." *Flook*, 437 U.S. at 589 n.9 (citing *Benson*, 409 U.S. at 71). [2]

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[2] The Federal Circuit majority dismissed with little discussion these clear disclaimers in *Benson* and *Flook* of any categorical

Further, the Federal Circuit majority's proclamation that *Diamond v. Diehr* "once again" enunciated a definitive "machine-or-transformation" test for patent-eligibility is incorrect. *See* Pet. App. at 16a. In *Diehr*, the Court did nothing more than reiterate the teachings of both *Benson* and *Flook* in recognizing not only that a claim seeking patent protection for a mathematical formula will not be patent-eligible, but that "this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment" or by also claiming "insignificant postsolution activity." *Diehr*, 450 U.S. at 191-92 (citing to *Benson* and *Flook*). Indeed, *Diehr* confirmed that this Court's holdings in *Benson* and *Flook* "stand for no more than" that the *only* limits to patent eligibility are those processes that claim the "laws of nature, natural phenomena, and abstract ideas." *Diehr*, 450 U.S. at 185.

Thus, in evaluating the patent-eligibility of the claimed method for molding raw, uncured synthetic rubber that used a well-known mathematical equation, *Diehr* considered only whether, when taken as a whole, the claim was directed to a mathematical equation. *Id.* at 192. *Diehr* did not conclude that the claim was patent-eligible because it was tied to a particular machine

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"machine or transformation" test, characterizing them as "equivocal" or as a mere "caveat." Pet. App. at 16a. It placed great significance in the fact that these disclaimers were not expressly repeated in *Diehr*, Pet. App. at 16a-17a, but failed to recognize that a similar disclaimer was neither needed nor appropriate in *Diehr*.

or transformed a particular article into a different state or thing. Rather, *Diehr* concluded the claim was patent-eligible because what the applicant sought to patent was an industrial process for the molding of rubber products and not the mathematical formula used in that process. *Id.* at 192-93. *Diehr* thus nowhere suggests that a "machine" or "transformation" is required for a process to come within the § 101 categories of possible patentable subject matter.

2. Other precedents overlooked by the Federal Circuit confirm the absence in this Court of rigid tests under Section 101

Without any explanation, the Federal Circuit majority's opinion bypassed two important decisions of this Court – *Diamond v. Chakrabarty*, 447 U.S. 303 (1980), and *J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred International, Inc.*, 534 U.S. 124 (2001) – that addressed § 101 statutory classes other than "process," but nevertheless confirmed the absence in this Court of rigid limitations on patent eligibility.

In *Chakrabarty*, the respondent's application included claims to a method of producing a new type of bacterium capable of breaking down components of crude oil (a property not possessed by naturally occurring bacteria) and claims to the genetically-engineered bacteria. 447 U.S. at 305. The patent examiner rejected the claims to the bacteria on two grounds: "(1) that micro-organisms are 'products of nature,' and (2) that as living things they are not

patentable subject matter under 35 U.S.C. § 101." *Id.* at 306.

In ruling that the claimed micro-organism, although technically "alive," constituted patent-eligible subject matter, *Chakrabarty* considered – and rejected – the argument that patent eligibility should not extend to new technologies that were not foreseen and expressly authorized by Congress, such as the genetically-engineered micro-organisms then at issue. *See id.* at 314-16. The Court reasoned that "[a] rule that unanticipated inventions are without protection would [not only] conflict with the core concept of the patent law that anticipation undermines patentability," *id.* at 315-16, but would also frustrate Congress' intent in employing broad general language in § 101 – *i.e.*, that the inventions most benefiting mankind, such as "those that 'push back the frontiers of chemistry, physics, and the like,'" are generally unforeseeable. *Id.* at 316. The Court confirmed that patent eligibility should be scrutinized instead under "'the principles underlying the prohibition against patents for mere "ideas" or phenomena of nature.'" *Id.* at 315 (citation omitted).

Twenty years later, in *J.E.M. Ag Supply*, the Court again considered the scope and application of patent eligibility under § 101. Faced with the question of whether newly-engineered corn plant breeds fell within § 101, the Court specifically addressed whether eligibility should be governed by what was foreseen at the time the patent laws were drafted. Reaffirming that "the language of § 101 is extremely broad" and that "'Congress plainly contemplated that the patent laws would be given

wide scope,'" 534 U.S. at 130, this Court again refused to adopt as a test for patent-eligible subject matter whether the invention was of a type expressly authorized by Congress. *Id.* at 134-35. The Court recognized that "101 ... is a dynamic provision designed to encompass new and unforeseen inventions," and that "[d]enying patent protection under § 101 simply because such coverage was thought technologically infeasible in 1930...would be inconsistent with the forward-looking perspective of the utility patent statute. As we noted in *Chakrabarty*, 'Congress employed broad general language in drafting § 101 precisely because [new types of] inventions are often unforeseeable.'" *Id.* at 135 (citation omitted).[3]

Thus, both *Chakrabarty* and *J.E.M. Ag Supply* affirm this Court's recognition of the broad scope and applicability of § 101, as well as a wise reluctance to engraft "tests" on § 101 that might limit patent eligibility to known technologies of the past and foreclose possibilities offered by new and unanticipated technology.

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[3] *Accord, Benson*, 409 U.S. at 71: "[It is not our purpose to] freeze process patents to old technologies, leaving no room for the revelations of the new, onrushing technology."

B. The Federal Circuit's Rigid "Machine Or Transformation" Test Overlooks Congress' Intent That Section 101 Have A Broad Construction

In adopting a new and unprecedented limitation on patent-eligibility, the Federal Circuit majority overlooked this Court's repeated recognition that Congress intended § 101 to have a broad construction: "[t]he subject-matter provisions of the patent law have been cast in broad terms to fulfill the constitutional and statutory goal of promoting 'the Progress of Science and the useful Arts' with all that means for the social and economic benefits envisioned by Jefferson." *Chakrabarty*, 447 U.S. at 315.

The *Chakrabarty* Court further recognized that the legislative history of § 101 supports a broad reading:

> The Patent Act of 1793, authored by Thomas Jefferson, defined statutory subject matter as "any new and useful art, machine, manufacture, or composition of matter, or any new or useful improvement [thereof]." The Act embodied Jefferson's philosophy that "ingenuity should receive a liberal encouragement." Subsequent patent statutes in 1836, 1870, and 1874 employed this same broad language.

Id. at 308-09 (citations omitted).

Further, in *Diehr*, this Court noted that the Committee Reports accompanying the 1952 Patent Act, in which Congress replaced the word "art" with the word "process," "inform us that Congress intended statutory subject matter to 'include anything under the sun that is made by man.'" *Diehr*, 450 U.S. at 182 (quoting S. Rep. No. 1979, 82d Cong., 2d Sess., 5 (1952); H.R. Rep. No. 1923, 82d Cong., 2d Sess., 6 (1952)).[4]

The Federal Circuit majority, however, never referred to or considered the Congressional intent or purpose underlying § 101. As a result, it has done exactly what this Court has repeatedly cautioned against – it has "'read into the patent laws limitations and conditions which the legislature has not expressed.'" *Chakrabarty*, 447 U.S. at 308 (quoting *United States v. Dubilier Condenser Corp.*, 289 U.S. 178, 199, 53 S.Ct. 554, 561, 77 L.Ed. 1114 (1933)). Nothing in § 101 or its legislative history supports limiting patentable "processes" to those that transform physical matter or are performed by particular machines.

In *Chakrabarty*, this Court, noting that section 101 had been "cast in broad terms," confirmed:

> Congress has performed its constitutional role in defining patentable subject matter in § 101; we perform ours in construing the language

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[4] There are, of course, legitimate, well-established limits to patent-eligible subject matter. *See* Section C, *infra*.

> Congress has employed. In so doing, our obligation is to take statutes as we find them, guided, if ambiguity appears, by the legislative history and statutory purpose. Here, we perceive no ambiguity.

447 U.S. at 315. Here, by ignoring the unambiguous language of § 101, as well as its legislative history and statutory purpose, the Federal Circuit's decision effectively removes the "any ... process" language from § 101 and effectively substitutes "only those processes that meet the 'machine or transformation' test" into the statute. Thus, its decision amounts to legislation, not interpretation, that contravenes the expressed intent of Congress.

C. This Court's Decisions Uniformly Reflect A Wise Openness, Consistent With The Congressional Intent, To New Forms Of Innovations, And Exclude Only Claims To Laws Of Nature, Natural Phenomena And Abstract Ideas

As shown by the precedents cited herein, this Court's opinions uniformly have been open to patent eligibility of new forms of innovation undreamed of at the time of *Cochrane* in 1876. *See, e.g., Chakrabarty*, 447 U.S. at 309 (patentable subject matter includes "anything under the sun that is made by man") (citation omitted); *J.E.M. Ag Supply*, 534 U.S. at 135 ("Denying patent protection under § 101 simply because such coverage was thought

technically infeasible [previously] would be inconsistent with the forward-looking perspective of the utility patent statute."). This Court's decisions have not excluded particular technologies, but instead have embraced even new or unusual types of processes. *See, e.g., Diehr*, 450 U.S. at 185-86 (recognizing that a process claiming a mathematical formula and a programmed digital computer is not precluded *per se* from patent eligibility).

Moreover, this Court's decisions have never treated the classes of eligible subject matter established by Congress in § 101 – *any* "process, machine, manufacture, or composition of matter" – as rigid limitations, but rather as "expansive" guideposts. *J.E.M. Ag Supply*, 534 U.S. at 130 (citing *Chakrabarty*, 447 U.S. at 308). Section 101 is thus "a dynamic provision designed to encompass new and unforeseen inventions." *J.E.M. Ag Supply*, 534 U.S. at 135.

To the extent this Court has ever refused patent eligibility, it has done so based on the facts of each case and applications of the fundamental principle that excludes from eligibility claims to "laws of nature, natural phenomena, and abstract ideas." *Diehr*, 450 U.S. at 185. Such discoveries are "'manifestations of . . . nature, free to all men and reserved exclusively to none.'" *Chakrabarty*, 447 U.S. at 309 (citation omitted). They cannot be "invented" by man, or are abstract and not "useful," and thus are excluded from patent eligibility. *Id.*; *Flook*, 437 U.S. at 589; *see also Benson*, 409 U.S. at 71.

Laws of nature, physical phenomena, and abstract ideas thus exist in the public domain for all time. *See, e.g., Diehr*, 450 U.S. at 185. An inventor is not entitled to exclusive use of one of these basic principles because to do so would remove it from the public. *Id.* Yet, this protection of the public commons does not require limits on or exclusions from the four specified categories, "process, machine, manufacture or composition of matter," of § 101. Instead, it provides guidance to the decision-maker, regardless of category, to avoid removal from the public of natural or fundamental scientific principles. In this way, the patent law navigates successfully between excessive levels of protection that may impede the further spread of useful knowledge, while also providing the necessary incentives for future innovation.

D. A New And Exclusionary "Machine Or Transformation" Test Is Not Needed

1. This Court's precedent provides sufficient guidance for determining the patent-eligibility of a process claim

There was no need for the Federal Circuit majority to formulate a rigid "machine or transformation" test for determining whether a process claim is patent-eligible. This Court's precedents provide ample guidance for determining the patent-eligibility of a process claim without requiring a "machine or transformation" test.

Indeed, the Federal Circuit majority recognized this: "Looking to [this Court's precedents in *Benson*, *Flook* and *Diehr*], we find a wealth of detailed guidance and helpful examples on how to determine the patent-eligibility of process claims." Pet. App. at 21a; *see also* Pet. App. at 10a; Pet. App. at 18a; Pet. App. at 20a-21a. Yet, without explanation, the Federal Circuit majority ignored this Court's "detailed guidance," and focused instead on a single statement (made *in dicta*) that "'[t]ransformation ... is the clue'" as the sole criteria for determining the patent-eligibility of a process claim that does not include particular machines. *See, e.g.*, Pet. App. at 12a. There was no basis – and the Federal Circuit majority offered none – for that narrow focus.

Specifically, this Court has repeatedly held that the only restriction on the patent-eligibility of a process is if it claims "laws of nature, natural phenomena, [or] abstract ideas'" because "[s]uch fundamental principles are 'part of the storehouse of knowledge of all men ... free to all men and reserved exclusively to none.'" *See* Pet. App. at 7a-8a. In applying this restriction, this Court's precedents offer numerous "criteria govern[ing] the determination ... as to whether a claim to a process ... claims only a fundamental principle." Pet. App. at 8a. The most recent articulation of these criteria occurs in *Diamond v. Diehr*, wherein this Court noted that a claim reciting a mathematical formula, scientific principle, or phenomenon of nature is not patent eligible if its application would preempt the use of that formula or scientific principle or phenomenon of nature. *Id.* at 182, 187

Diehr also clarifies that "[i]n determining the eligibility of [the] claimed process for patent protection under § 101, [the] claims must be considered as a whole," 450 U.S. at 188, rather than considered on a limitation-by limitation basis. This is consistent with the Court's additional guidance in *Diehr* that "[t]he novelty of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter." *Id.* at 188. Thus, "[i]t is inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the analysis" in determining the patent-eligibility of the claim. *Id.* at 188.

Diehr further offers guidance that a claim directed to a mathematical formula (or scientific principle or phenomenon of nature) cannot be made patent-eligible "by attempting to limit the use of the formula [or scientific principle or phenomenon of nature] to a particular technological environment," 450 U.S. at 191, or by also including "token post-solution activity." *Id.* at 192 n. 14. This is consistent with this Court's earlier decision in *Flook*. 437 U.S. at 590 (one cannot make patentable an unpatentable process simply by including a limitation directed to "post-solution" activity – "[t]he notion that post-solution activity, no matter how conventional or obvious in itself, can transform an unpatentable principle into a patentable process exalts form over substance").

This Court's precedents thus clearly provide ample guidance for determining whether a process

claim is patent-eligible. A rigid "machine or transformation" test is neither useful nor needed.

2. There is no logical connection between the "Machine Or Transformation" Test and whether a process claim is for a fundamental principle

At the outset of its opinion, the Federal Circuit identified as "[t]he true issue before us ... whether Applicants are seeking to claim a fundamental principle (such as an abstract idea) or a mental process." Pet. App. at 8a. Rather than addressing this "true issue" directly, in accordance with the principles laid down in *Benson, Flook* and *Diehr*, the Federal Circuit majority instead adopted "machine or transformation" as the sole test for the patent eligibility of a process. Pet. App. at 17a, 22a. The majority did so after it perceived some challenge in determining "whether a given claim would pre-empt all uses of a fundamental principle." Pet. App. at 12a. But the majority failed to connect its new test in any way to its "true issue": proper application of the long-established principle that excludes eligibility only when a patent claims "laws of nature, natural phenomena, [or] abstract ideas."

The Federal Circuit majority did not explain how a process that meets its "machine or transformation" test – *i.e.*, a process that is "tied to a particular machine or apparatus" or a process that "transforms a particular article into a different thing" – *necessarily* excludes "laws of nature, natural phenomena, [or] abstract ideas." The majority

opinion thus never provided a logical connection between the "machine or transformation" test and this Court's principle that claims to "laws of nature, natural phenomena, and abstract ideas" are precluded from patent eligibility. Nor did the majority show that the "machine or transformation" test fills any need or gap that these established exclusions leave unfilled.

Further, the majority did nothing to demonstrate that its "machine or transformation" test avoids conflict with this Court's application of "abstract idea" principles. For example, *Flook* rejected a process claim to a mathematical "law of nature" that nevertheless was "tied" to a computer.[5] 437 U.S. at 594-595. And *Benson* rejected a process that performed a "transformation," converting BCD

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[5] The Federal Circuit majority declined to provide guidelines as to the "precise contours" a "particular machine" must have, but expressly left open "whether or when recitation of a computer" will suffice. Pet. App. at 28a. This has resulted in multiple Board of Patent Appeals and Interferences ("BPAI") decisions, for example, rejecting claims reciting a general purpose computer or processor. *See Ex parte Halligan*, Appeal No. 2008-1588 (Bd. Pt. App. & Interf. Nov 24, 2008); *Ex parte Snyder*, Appeal No. 2008-4598 (Bd. Pat. App. & Interf. May 12, 2009). In addition, the lower courts have rejected the following as ineligible subject matter under § 101: (1) claims reciting a "network," an "entry means," an "identification entry means," and a "computing means" (*Every Penny Counts v. Bank of America Corp.*, C.A. No. 2:07-cv-042, 2009 U.S. Dist. LEXIS 53626, (M.D. Fla., May 27, 2009); and (2) claims reciting "a remote application entry and display device" and "remote funding source terminal devices" (*DealerTrack, Inc. v. Huber*, Case No. CV 06-2335 AG (FMOx), 2009 U.S. Dist. LEXIS 58125 (C.D. Cal. July 7, 2009).

numerals into binary numerals by an algorithm.[6] *Benson*, 409 U.S. at 71-72. In both instances, exclusive use of the "machine or transformation" test would have found eligible patent claims that clearly were directed to *ineligible* "abstract ideas."

On the other hand, rigid application of "machine or transformation" will defeat claims for ground-breaking inventions such as this Court has approved in the past. For example, in *O'Reilly v. Morse*, 56 U.S. 62 (1854), Samuel Morse's invention of the telegraph was at issue. Morse's 5th claim recited, as his invention:

> the system of signs, consisting of dots and spaces, and of dots, spaces and horizontal lines, for numerals, letters, words or sentences, substantially as herein set forth and illustrated, for telegraphic purposes.

56 U.S. at 86. The 5th claim thus did not tie its subject matter to any machine, nor did it transform any article, yet this Court rejected the challenges to that 5th claim.[7] However, if "machine or

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[6] Similarly, the Federal Circuit also confusingly left open whether information-age processes such as "business methods ... [that] involve the manipulation of even more abstract constructs such as legal obligations" qualify under its test as a "transformation" of an article to a different state. Pet. App. at 29a.

[7] While the Federal Circuit majority ignored completely the implications of this Court's approval of Morse's 5th claim, the majority also erred in implying that this Court rejected Morse's 8th claim *because* it "was not transformative or tied to any

transformation" had been the sole test, it would have defeated the 5th claim.[8]

Thus, the majority's "machine or transformation" test does not clearly delineate statutory subject matter as it has been defined by this Court. Instead, as one Federal Circuit dissenter (Rader, J.) recognized, the "machine or transformation" test does nothing more than generate more questions, such as "What form or amount of 'transformation' suffices? When is a 'representative' of a physical object sufficiently linked to that object to satisfy the transformation test? ... What link to a machine is sufficient to invoke the 'or machine' prong? Are the specific machines of *Benson* required, or can a general purpose computer qualify?" Pet. App. at 142a. Another dissenter (Mayer, J) recognized that the majority's "proposed" test "is unnecessarily complex

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particular apparatus." Pet. App. at 14a. Instead, this Court rejected the 8th claim because of its vagueness and undue breadth that exceeded the invention described in Morse's specification. 56 U.S. at 112-115. These grounds are unrelated to eligibility, remain applicable to all patents and are codified in 35 U.S.C. § 112.

[8] That Morse's 5th claim recited a "system" rather than "process" or "method" is not a basis for distinction. In applying the *Bilski* "machine or transformation" test, lower courts have interpreted "system" claims as processes for purposes of § 101 eligibility. *See Every Penny Counts v. Bank of America Corp.*, C.A. No. 2:07-cv-042, 2009 U.S. Dist. LEXIS 53626 (M.D.Fla. May 27, 2009); *see also Research Corp. Technologies, Inc. v. Microsoft Corp.*, slip op. No. CV-01-658-TUC-RCJ (D. Az. July 28, 2009), pp. 22-25 (applying *Bilski* "machine or transformation" test to apparatus claims).

and will only lead to further uncertainty regarding the scope of patentable subject matter." Pet. App. at 131a. Thus, the Federal Circuit's "machine or transformation" test not only fails to fill an existing need in the law, but raises more difficult questions than it resolves.

In particular, although arising in connection with a "business method" patent, the "machine or transformation" test sweeps across many other technologies, existing and future.[9] At the same time it provides no solution with respect even to perceived difficulties with business methods. Dissenter (Mayer, J) explained that, "as written, Bilski's claim arguably involves a physical transformation," thus conforming to the majority's "transformation" requirement. Pet. App. at 128.

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[9] Indeed, in applying the "machine or transformation" test, the BPAI has rejected claims across many other technologies for failure to claim either a "particular" machine or a transformation of physical object or substance or representation thereof. *See, e.g.*, *Ex parte Hardwick*, Appeal No. 2009-002399 (Bd. Pt. App. & Interf. June 22, 2009) (method for synthesizing digital speech samples corresponding to a selected voicing state); *Ex parte Caputo*, Appeal No. 2008-004868 (Bd. Pt. App. & Interf. June 18, 2009) (method for generating complex waveforms and signal modulation techniques for use in communications, signal processing and manufacturing); *Ex parte Johnson*, Appeal No. 2009-000470 (Bd. Pt. App. & Interf. June 10, 2009) (method for computer-implemented network collaboration through embedded annotation and rendering instructions allowing collaborators to generate, share or transmit content over the internet with only a web browser); *Ex parte Barnes*, Appeal No. 2007-4114 (Bd. Pt. App. & Interf. Jan. 22, 2009) (method for filtering seismic discontinuity data to enhance those features that have the geometrical characteristics of a fault).

By effectively eliminating incentives to research and innovate with respect to processes not tied to a particular machine and do not necessarily transform an article to a new state, the Federal Circuit's decision has chilling effects, both immediate and potentially long-lasting, on new areas of innovation. In the current global economic climate, incentives for new technological breakthroughs should be encouraged, not discouraged. The public interest is best served if the United States patent system remains open to all forms of technological development. If it does not remain open, such developments may happen outside the U.S. patent system, and without its requirements for public disclosure and limited periods of exclusivity. Worse yet, such developments may not happen at all.

3. Solutions to overly broad patent claims exist that do not require engrafting limitations on Section 101

To the extent it may be feared that certain patents, including "business method" patents, contain overly broad claims, solutions lie (a) in this Court's precedents that, *e.g.*, refuse eligibility to "abstract ideas," and (b) in other conditions for patentability set out in the patent statute.

First, as noted above, this Court rejected the eligibility of specific inventions on the basis of the long-standing principle excluding from eligibility "laws of nature, natural phenomena and abstract ideas." Those principles have been widely followed

and successfully applied by the lower courts and the PTO for many years. While the Federal Circuit majority noted the "more challenging process claims of the twenty-first century," it identified no unique challenges in applying those principles, nor any pressing need or justification for a new, more restrictive test that forecloses incentives for innovation across broad areas of technology. Pet. App. at 12a. Indeed, one dissenter, Circuit Judge Rader, would have dealt with Petitioners' application solely on the basis of whether its claims state an "abstract idea." Pet. App. at 134a, 142a.

Second, simply because an invention involves patent-*eligible* subject matter does not mean that a patent should issue. Indeed, as this Court recognized in *Diehr*, a determination that claims recite subject matter that is eligible for patent protection under § 101 does nothing to preclude a later finding that a "process is not deserving of patent protection because it fails to satisfy the statutory conditions of novelty under § 102 or nonobviousness under § 103." 450 U.S. at 191; *see Flook*, 437 U.S. at 600 (Stewart, J. and Rehnquist, J., dissenting) ("Section 101 is concerned only with subject-matter patentability. Whether a patent will actually *issue* depends upon the criteria of §§ 102 and 103, which include novelty and inventiveness, among many others.").

The legislative history is in accord, stating that "Section 101 sets forth the subject matter that can be patented, 'subject to the [other] conditions and requirements of this title.'" *Diehr*, 450 U.S. at 190 (quoting S. Rep. No. 1979, 82d Cong., 2d Sess., 5

(1952)). As also recognized by one *Bilski* dissenter, "the Patent Act from its inception focused patentability on the specific characteristics of the claimed invention-its novelty and utility-not on its particular subject matter category .... Specifically, section 101 itself distinguishes patent eligibility from the conditions of patentability-providing generously for patent eligibility, but noting that patentability requires substantially more." Pet. App. at 135a-136a (Rader, J. dissenting).

Rather than imposing a rigid test on § 101 that threatens the eligibility of new technologies, questions of whether a given advance is patent-worthy are better dealt with by application of sections 102 (requiring novelty), 103 (requiring non-obviousness) and 112 (requiring that the invention defined by the claims be "enabled" and that it be distinctly claimed). *See, e.g., KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 415 (2007). As one *Bilski* dissenter noted (Rader, J.), "[t]hese statutory conditions and requirements better serve the function of screening out unpatentable inventions than some vague 'transformation' or 'proper machine link' test." Pet. App. at 142a.

The Federal Circuit's rigid approach to subject matter eligibility undercuts this Court's precedents by prematurely foreclosing any additional inquiry into patentability and/or individual worthiness of the particular innovation, *i.e.*, whether it is new, nonobvious, useful, and whether it is properly described and defined. This not only upsets the Congressional intent, but threatens incentives to

produce valuable and unforeseeable future innovations.

E. Any Changes In The Broad Scope Of Section 101 Should Be Left To Congress

When the Constitution was written, the Framers wisely authorized a patent system that would provide incentives for innovations in the "useful arts," but they could not have foreseen the myriad developments and discoveries that would occur over the following centuries. Thus, the Framers left it to Congress to determine, and to modify, as events necessitated, the types or classes of things that could be the subject of an exclusive right. Congress, of course, has broad powers to initiate investigations, hold hearings, gain insights from interested parties from a broad range of technologies, and ultimately to determine the proper balance and need, if any, for new limitations on patent eligibility.

This Court has consistently recognized both the constitutional authority of Congress, *Chakrabarty*, 447 U.S. at 315 ("It is, of course, correct that Congress, not the courts, must define the limits of patentability..."), as well as the greater resources available to Congress to make such policy choices. *Id.* at 317 ("the kind of investigation, examination, and study that legislative bodies can provide and courts cannot").

In construing § 101, this Court has frequently noted the dangers of reading in limitations to patent eligibility not expressly authorized by Congress.

> [W]e have more than once cautioned that "courts 'should not read into the patent laws limitations and conditions which the legislature has not expressed.'" *Diamond v. Chakrabarty, supra*, at 308, 100 S.Ct., at 2207, quoting *United States v. Dubilier Condenser Corp.*, 289 U.S. 178, 199, 53 S.Ct. 554, 561, 77 L.Ed. 1114 (1933).

Diehr, 450 U.S. at 182. Such deference is wise, and has served the public interest by allowing the patent system to remain dynamic and able to accommodate new forms of innovation. Consideration of whether any limitations or conditions should be added to § 101 should continue to be left to Congress.

CONCLUSION

The AIPLA respectfully requests that this Court reverse the *en banc* decision of the Federal Circuit, reject that court's "machine or transformation" test and affirm that patent eligibility for "processes" remains as expressed by this Court in *Diehr* and the Court's similar precedents.

Respectfully submitted,

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