
3 Patent Law

Insert at p. 147, replacing the Federal Circuit decision in Bilski:

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*Bilski v. Kappos, 2010 WL 2555192,
95 U.S.P.Q.2d 1001
(U.S. Sup. Ct., June 28, 2010)*

Justice KENNEDY delivered the opinion of the Court, except as to Parts II-B-2 and II-C-2. [Justice SCALIA does not join Parts II-B-2 and II-C-2.]

The question in this case turns on whether a patent can be issued for a claimed invention designed for the business world. The patent application claims a procedure for instructing buyers and sellers how to protect against the risk of price fluctuations in a discrete section of the economy. Three arguments are advanced for the proposition that the claimed invention is outside the scope of patent law: (1) it is not tied to a machine and does not transform an article; (2) it involves a method of conducting business; and (3) it is merely an abstract idea. The Court of Appeals ruled that the first mentioned of these, the so-called machine-or-transformation test, was the sole test to be used for determining the patentability of a "process" under the Patent Act, 35 U.S.C. §101.

I.

Petitioners' application seeks patent protection for a claimed invention that explains how buyers and sellers of commodities in the energy market can protect, or hedge, against the risk of price changes. The key claims are claims 1 and 4. Claim 1 describes a series of steps instructing how to hedge risk. Claim 4 puts the concept articulated in claim 1 into a simple mathematical formula. Claim 1 consists of the following steps:

"(a) initiating a series of transactions between said commodity provider and consumers of said commodity wherein said consumers purchase said commodity at a fixed rate

based upon historical averages, said fixed rate corresponding to a risk position of said consumers;

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

"(c) initiating a series of transactions between said commodity provider and said market participants at a second fixed rate such that said series of market participant transactions balances the risk position of said series of consumer transactions." App. 19-20.

The remaining claims explain how claims 1 and 4 can be applied to allow energy suppliers and consumers to minimize the risks resulting from fluctuations in market demand for energy. For example, claim 2 claims "[t]he method of claim 1 wherein said commodity is energy and said market participants are transmission distributors." *Id.*, at 20. Some of these claims also suggest familiar statistical approaches to determine the inputs to use in claim 4's equation. For example, claim 7 advises using well-known random analysis techniques to determine how much a seller will gain "from each transaction under each historical weather pattern." *Id.*, at 21.

The patent examiner rejected petitioners' application, explaining that it "is not implemented on a specific apparatus and merely manipulates [an] abstract idea and solves a purely mathematical problem without any limitation to a practical application, therefore, the invention is not directed to the technological arts." App. to Pet. for Cert. 148a. The Board of Patent Appeals and Interferences affirmed, concluding that the application involved only mental steps that do not transform physical matter and was directed to an abstract idea. *Id.*, at 181a-186a.

The United States Court of Appeals for the Federal Circuit heard the case en banc and affirmed. The case produced five different opinions. Students of patent law would be well advised to study these scholarly opinions.

Chief Judge Michel wrote the opinion of the court. The court rejected its prior test for determining whether a claimed invention was a patentable "process" under §101 — whether it produces a "useful, concrete, and tangible result" — as articulated in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373 (1998), and *AT & T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1357 (1999). See *In re Bilski*, 545 F.3d 943, 959-960, and n. 19 (C.A. Fed. 2008) (en banc). The court held that "[a] claimed process is surely patent-eligible under §101 if: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing." *Id.*, at 954. The court concluded this "machine-or-transformation test" is "the sole test governing §101 analyses," *id.*, at 955, and thus the "test for determining patent eligibility of a process under §101," *id.*, at 956. Applying the machine-or-transformation test, the court held that petitioners' application was not patent eligible. *Id.*, at 963-966. Judge Dyk wrote a separate concurring opinion, providing historical support for the court's approach. *Id.*, at 966-976.

Three judges wrote dissenting opinions. Judge Mayer argued that petitioners' application was "not eligible for patent protection because it is directed to a method of conducting business." *Id.*, at 998. He urged the adoption of a "technological standard for patentability." *Id.*, at 1010. Judge Rader would have found

petitioners' claims were an unpatentable abstract idea. *Id.*, at 1011. Only Judge Newman disagreed with the court's conclusion that petitioners' application was outside of the reach of §101. She did not say that the application should have been granted but only that the issue should be remanded for further proceedings to determine whether the application qualified as patentable under other provisions. *Id.*, at 997.

This Court granted certiorari. 556 U.S. ___, 129 S.Ct. 2735 (2009).

II.

A.

Section 101 defines the subject matter that may be patented under the Patent Act:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Section 101 thus specifies four independent categories of inventions or discoveries that are eligible for protection: processes, machines, manufactures, and compositions of matter. "In choosing such expansive terms . . . modified by the comprehensive 'any,' Congress plainly contemplated that the patent laws would be given wide scope." *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980). Congress took this permissive approach to patent eligibility to ensure that "ingenuity should receive a liberal encouragement." *Id.*, at 308-309, 100 S.Ct. 2204 (quoting 5 Writings of Thomas Jefferson 75-76 (H. Washington ed. 1871)).

The Court's precedents provide three specific exceptions to §101's broad patent-eligibility principles: "laws of nature, physical phenomena, and abstract ideas." *Chakrabarty*, *supra*, at 309. While these exceptions are not required by the statutory text, they are consistent with the notion that a patentable process must be "new and useful." And, in any case, these exceptions have defined the reach of the statute as a matter of statutory *stare decisis* going back 150 years. See *Le Roy v. Tatham*, 14 How. 156, 174-175 (1853). The concepts covered by these exceptions are "part of the storehouse of knowledge of all men . . . free to all men and reserved exclusively to none." *Funk Brothers Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948).

The §101 patent-eligibility inquiry is only a threshold test. Even if an invention qualifies as a process, machine, manufacture, or composition of matter, in order to receive the Patent Act's protection the claimed invention must also satisfy "the conditions and requirements of this title." §101. Those requirements include that the invention be novel, see §102, nonobvious, see §103, and fully and particularly described, see §112.

The present case involves an invention that is claimed to be a "process" under §101. Section 100(b) defines "process" as:

process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material.

The Court first considers two proposed categorical limitations on “process” patents under §101 that would, if adopted, bar petitioners’ application in the present case: the machine-or-transformation test and the categorical exclusion of business method patents.

B.

I.

Under the Court of Appeals’ formulation, an invention is a “process” 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.” 545 F.3d, at 954. This Court has “more than once cautioned that courts ‘should not read into the patent laws limitations and conditions which the legislature has not expressed.’” *Diamond v. Diehr*, 450 U.S. 175 (1981) (quoting *Chakrabarty, supra*, at 308, 100 S.Ct. 2204; some internal quotation marks omitted). In patent law, as in all statutory construction, “[u]nless otherwise defined, ‘words will be interpreted as taking their ordinary, contemporary, common meaning.’” *Diehr, supra*, at 182. The Court has read the §101 term “manufacture” in accordance with dictionary definitions, see *Chakrabarty, supra*, at 308, and approved a construction of the term “composition of matter” consistent with common usage, see *Chakrabarty, supra*, at 308.

Any suggestion in this Court’s case law that the Patent Act’s terms deviate from their ordinary meaning has only been an explanation for the exceptions for laws of nature, physical phenomena, and abstract ideas. See *Parker v. Flook*, 437 U.S. 584, 588-589 (1978). This Court has not indicated that the existence of these well-established exceptions gives the Judiciary *carte blanche* to impose other limitations that are inconsistent with the text and the statute’s purpose and design. Concerns about attempts to call any form of human activity a “process” can be met by making sure the claim meets the requirements of §101.

Adopting the machine-or-transformation test as the sole test for what constitutes a “process” (as opposed to just an important and useful clue) violates these statutory interpretation principles. Section 100(b) provides that “[t]he term ‘process’ means process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material.” The Court is unaware of any “ordinary, contemporary, common meaning,” *Diehr, supra*, at 182, of the definitional terms “process, art or method” that would require these terms to be tied to a machine or to transform an article. Respondent urges the Court to look to the other patentable categories in §101 — machines, manufactures, and compositions of matter — to confine the meaning of “process” to a machine or transformation, under the doctrine of *noscitur a sociis*. Under this canon, “an ambiguous term may be given more precise content by the neighboring words with which it is

associated.” *United States v. Stevens*, 559 U.S.—, 130 S.Ct. 1577, 1587 (2010) (internal quotation marks omitted). This canon is inapplicable here, for §100(b) already explicitly defines the term “process.” See *Burgess v. United States*, 553 U.S. 124, 130 (2008) (“When a statute includes an explicit definition, we must follow that definition” (internal quotation marks omitted)).

The Court of Appeals incorrectly concluded that this Court has endorsed the machine-or-transformation test as the exclusive test. It is true that *Cochrane v. Deener*, 94 U.S. 780, 788 (1877), explained that a “process” is “an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing.” More recent cases, however, have rejected the broad implications of this dictum; and, in all events, later authority shows that it was not intended to be an exhaustive or exclusive test. *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972), noted 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.” At the same time, it explicitly declined to “hold that no process patent could ever qualify if it did not meet [machine or transformation] requirements.” *Id.*, at 71. *Flook* took a similar approach, “assum[ing] that a valid process patent may issue even if it does not meet [the machine-or-transformation test].” 437 U.S., at 588, n. 9.

This Court’s precedents establish that the machine-or-transformation test is a useful and important clue, an investigative tool, for determining whether some claimed inventions are processes under §101. The machine-or-transformation test is not the sole test for deciding whether an invention is a patent-eligible “process.”

2.

It is true that patents for inventions that did not satisfy the machine-or-transformation test were rarely granted in earlier eras, especially in the Industrial Age, as explained by Judge Dyk’s thoughtful historical review. See 545 F.3d, at 966-976 (concurring opinion). But times change. Technology and other innovations progress in unexpected ways. For example, it was once forcefully argued that until recent times, “well-established principles of patent law probably would have prevented the issuance of a valid patent on almost any conceivable computer program.” *Diehr*, 450 U.S., at 195 (STEVENS, J., dissenting). But this fact does not mean that unforeseen innovations such as computer programs are always unpatentable. See *id.*, at 192-193 (majority opinion) (holding a procedure for molding rubber that included a computer program is within patentable subject matter). Section 101 is a “dynamic provision designed to encompass new and unforeseen inventions.” *J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred Int’l, Inc.*, 534 U.S. 124, 135 (2001). A categorical rule denying patent protection for “inventions in areas not contemplated by Congress . . . would frustrate the purposes of the patent law.” *Chakrabarty*, 447 U.S., at 315.

The machine-or-transformation test may well provide a sufficient basis for evaluating processes similar to those in the Industrial Age — for example, inventions grounded in a physical or other tangible form. But there are reasons to doubt

whether the test should be the sole criterion for determining the patentability of inventions in the Information Age. As numerous *amicus* briefs argue, the machine-or-transformation test would create uncertainty as to the patentability of software, advanced diagnostic medicine techniques, and inventions based on linear programming, data compression, and the manipulation of digital signals. See, e.g., Brief for Business Software Alliance 24-25; Brief for Biotechnology Industry Organization et al. 14-27; Brief for Boston Patent Law Association 8-15; Brief for Houston Intellectual Property Law Association 17-22; Brief for Dolby Labs., Inc., et al. 9-10.

In the course of applying the machine-or-transformation test to emerging technologies, courts may pose questions of such intricacy and refinement that they risk obscuring the larger object of securing patents for valuable inventions without transgressing the public domain. The dissent by Judge Rader refers to some of these difficulties. 545 F.3d, at 1015. As a result, in deciding whether previously unforeseen inventions qualify as patentable “process[es],” it may not make sense to require courts to confine themselves to asking the questions posed by the machine-or-transformation test. Section 101’s terms suggest that new technologies may call for new inquiries. See *Benson, supra*, at 71 (to “freeze process patents to old technologies, leaving no room for the revelations of the new, onrushing technology[,] . . . is not our purpose”).

It is important to emphasize that the Court today is not commenting on the patentability of any particular invention, let alone holding that any of the above-mentioned technologies from the Information Age should or should not receive patent protection. This Age puts the possibility of innovation in the hands of more people and raises new difficulties for the patent law. With ever more people trying to innovate and thus seeking patent protections for their inventions, the patent law faces a great challenge in striking the balance between protecting inventors and not granting monopolies over procedures that others would discover by independent, creative application of general principles. Nothing in this opinion should be read to take a position on where that balance ought to be struck.

C.

I.

Section 101 similarly precludes the broad contention that the term “process” categorically excludes business methods. The term “method,” which is within §100(b)’s definition of “process,” at least as a textual matter and before consulting other limitations in the Patent Act and this Court’s precedents, may include at least some methods of doing business. See, e.g., Webster’s New International Dictionary 1548 (2d ed.1954) (defining “method” as “[a]n orderly procedure or process . . . regular way or manner of doing anything; hence, a set form of procedure adopted in investigation or instruction”). The Court is unaware of any argument that the

“ordinary, contemporary, common meaning,” *Diehr, supra*, at 182, of “method” excludes business methods. Nor is it clear how far a prohibition on business method patents would reach, and whether it would exclude technologies for conducting a business more efficiently. See, e.g., Hall, Business and Financial Method Patents, Innovation, and Policy, 56 Scottish J. Pol. Econ. 443, 445 (2009) (“There is no precise definition of . . . business method patents”).

The argument that business methods are categorically outside of §101’s scope is further undermined by the fact that federal law explicitly contemplates the existence of at least some business method patents. Under 35 U.S.C. §273(b)(1), if a patent-holder claims infringement based on “a method in [a] patent,” the alleged infringer can assert a defense of prior use. For purposes of this defense alone, “method” is defined as “a method of doing or conducting business.” §273(a)(3). In other words, by allowing this defense the statute itself acknowledges that there may be business method patents. Section 273’s definition of “method,” to be sure, cannot change the meaning of a prior-enacted statute. But what §273 does is clarify the understanding that a business method is simply one kind of “method” that is, at least in some circumstances, eligible for patenting under §101.

A conclusion that business methods are not patentable in any circumstances would render §273 meaningless. This would violate the canon against interpreting any statutory provision in a manner that would render another provision superfluous. See *Corley v. United States*, 556 U.S. —, —, 129 S.Ct. 1558 (2009). This principle, of course, applies to interpreting any two provisions in the U.S.Code, even when Congress enacted the provisions at different times. See, e.g., *Hague v. Committee for Industrial Organization*, 307 U.S. 496, 529-530 (1939) (opinion of Stone, J.). This established rule of statutory interpretation cannot be overcome by judicial speculation as to the subjective intent of various legislators in enacting the subsequent provision. Finally, while §273 appears to leave open the possibility of some business method patents, it does not suggest broad patentability of such claimed inventions.

2.

Interpreting §101 to exclude all business methods simply because business method patents were rarely issued until modern times revives many of the previously discussed difficulties. See *supra*, at ——. At the same time, some business method patents raise special problems in terms of vagueness and suspect validity. See *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 397 (2006) (KENNEDY, J., concurring). The Information Age empowers people with new capacities to perform statistical analyses and mathematical calculations with a speed and sophistication that enable the design of protocols for more efficient performance of a vast number of business tasks. If a high enough bar is not set when considering patent applications of this sort, patent examiners and courts could be flooded with claims that would put a chill on creative endeavor and dynamic change.

In searching for a limiting principle, this Court's precedents on the unpatentability of abstract ideas provide useful tools. See *infra*, at _____. Indeed, if the Court of Appeals were to succeed in defining a narrower category or class of patent applications that claim to instruct how business should be conducted, and then rule that the category is unpatentable because, for instance, it represents an attempt to patent abstract ideas, this conclusion might well be in accord with controlling precedent. See *ibid.* But beyond this or some other limitation consistent with the statutory text, the Patent Act leaves open the possibility that there are at least some processes that can be fairly described as business methods that are within patentable subject matter under §101.

Finally, even if a particular business method fits into the statutory definition of a "process," that does not mean that the application claiming that method should be granted. In order to receive patent protection, any claimed invention must be novel, §102, nonobvious, §103, and fully and particularly described, §112. These limitations serve a critical role in adjusting the tension, ever present in patent law, between stimulating innovation by protecting inventors and impeding progress by granting patents when not justified by the statutory design.

III.

Even though petitioners' application is not categorically outside of §101 under the two broad and atextual approaches the Court rejects today, that does not mean it is a "process" under §101. Petitioners seek to patent both the concept of hedging risk and the application of that concept to energy markets. App. 19-20. Rather than adopting categorical rules that might have wide-ranging and unforeseen impacts, the Court resolves this case narrowly on the basis of this Court's decisions in *Benson*, *Flook*, and *Diehr*, which show that petitioners' claims are not patentable processes because they are attempts to patent abstract ideas. Indeed, all members of the Court agree that the patent application at issue here falls outside of §101 because it claims an abstract idea.

In *Benson*, the Court considered whether a patent application for an algorithm to convert binary-coded decimal numerals into pure binary code was a "process" under §101. 409 U.S., at 64-67. The Court first explained that "[a] principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right." *Id.*, at 67, 93 S.Ct. 253 (quoting *Le Roy*, 14 How., at 175). The Court then held the application at issue was not a "process," but an unpatentable abstract idea. "It is conceded that one may not patent an idea. But in practical effect that would be the result if the formula for converting . . . numerals to pure binary numerals were patented in this case." 409 U.S., at 71, 93 S.Ct. 253. A contrary holding "would wholly preempt the mathematical formula and in practical effect would be a patent on the algorithm itself." *Id.*, at 72.

In *Flook*, the Court considered the next logical step after *Benson*. The applicant there attempted to patent a procedure for monitoring the conditions during

the catalytic conversion process in the petrochemical and oil-refining industries. The application's only innovation was reliance on a mathematical algorithm. 437 U.S., at 585-586. *Flook* held the invention was not a patentable "process." The Court conceded the invention at issue, unlike the algorithm in *Benson*, had been limited so that it could still be freely used outside the petrochemical and oil-refining industries. 437 U.S., at 589-590. Nevertheless, *Flook* rejected "[t]he notion that post-solution activity, no matter how conventional or obvious in itself, can transform an unpatentable principle into a patentable process." *Id.*, at 590. The Court concluded that the process at issue there was "unpatentable under §101, not because it contain[ed] a mathematical algorithm as one component, but because once that algorithm [wa]s assumed to be within the prior art, the application, considered as a whole, contain[ed] no patentable invention." *Id.*, at 594. As the Court later explained, *Flook* stands for the proposition that the prohibition against patenting abstract ideas "cannot be circumvented by attempting to limit the use of the formula to a particular technological environment" or adding "insignificant postsolution activity." *Diehr*, 450 U.S., at 191-192.

Finally, in *Diehr*, the Court established a limitation on the principles articulated in *Benson* and *Flook*. The application in *Diehr* claimed a previously unknown method for "molding raw, uncured synthetic rubber into cured precision products," using a mathematical formula to complete some of its several steps by way of a computer. 450 U.S., at 177. *Diehr* explained that while an abstract idea, law of nature, or mathematical formula could not be patented, "an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection." *Id.*, at 187. *Diehr* emphasized the need to consider the invention as a whole, rather than "dissect[ing] the claims into old and new elements and then . . . ignor[ing] the presence of the old elements in the analysis." *Id.*, at 188. Finally, the Court concluded that because the claim was not "an attempt to patent a mathematical formula, but rather [was] an industrial process for the molding of rubber products," it fell within §101's patentable subject matter. *Id.*, at 192-193.

In light of these precedents, it is clear that petitioners' application is not a patentable "process." Claims 1 and 4 in petitioners' application explain the basic concept of hedging, or protecting against risk: "Hedging is a fundamental economic practice long prevalent in our system of commerce and taught in any introductory finance class." 545 F.3d, at 1013 (Rader, J., dissenting); see, e.g., D. Chorafas, Introduction to Derivative Financial Instruments 75-94 (2008); C. Stickney, R. Weil, K. Schipper, & J. Francis, Financial Accounting: An Introduction to Concepts, Methods, and Uses 581-582 (13th ed.2010); S. Ross, R. Westerfield, & B. Jordan, Fundamentals of Corporate Finance 743-744 (8th ed.2008). The concept of hedging, described in claim 1 and reduced to a mathematical formula in claim 4, is an unpatentable abstract idea, just like the algorithms at issue in *Benson* and *Flook*. Allowing petitioners to patent risk hedging would preempt use of this approach in all fields, and would effectively grant a monopoly over an abstract idea.

Petitioners' remaining claims are broad examples of how hedging can be used in commodities and energy markets. *Flook* established that limiting an abstract

idea to one field of use or adding token postsolution components did not make the concept patentable. That is exactly what the remaining claims in petitioners' application do. These claims attempt to patent the use of the abstract idea of hedging risk in the energy market and then instruct the use of well-known random analysis techniques to help establish some of the inputs into the equation. Indeed, these claims add even less to the underlying abstract principle than the invention in *Flook* did, for the *Flook* invention was at least directed to the narrower domain of signaling dangers in operating a catalytic converter.

* * *

Today, the Court once again declines to impose limitations on the Patent Act that are inconsistent with the Act's text. The patent application here can be rejected under our precedents on the unpatentability of abstract ideas. The Court, therefore, need not define further what constitutes a patentable "process," beyond pointing to the definition of that term provided in §100(b) and looking to the guideposts in *Benson*, *Flook*, and *Diehr*.

And nothing in today's opinion should be read as endorsing interpretations of §101 that the Court of Appeals for the Federal Circuit has used in the past. See, e.g., *State Street*, 149 F.3d, at 1373; *AT & T Corp.*, 172 F.3d, at 1357. It may be that the Court of Appeals thought it needed to make the machine-or-transformation test exclusive precisely because its case law had not adequately identified less extreme means of restricting business method patents, including (but not limited to) application of our opinions in *Benson*, *Flook*, and *Diehr*. In disapproving an exclusive machine-or-transformation test, we by no means foreclose the Federal Circuit's development of other limiting criteria that further the purposes of the Patent Act and are not inconsistent with its text.

The judgment of the Court of Appeals is affirmed.

It is so ordered.

Justice STEVENS, with whom Justice GINSBURG, Justice BREYER, and Justice SOTOMAYOR join, concurring in the judgment.

In the area of patents, it is especially important that the law remain stable and clear. The only question presented in this case is whether the so-called machine-or-transformation test is the exclusive test for what constitutes a patentable "process" under 35 U.S.C. §101. It would be possible to answer that question simply by holding, as the entire Court agrees, that although the machine-or-transformation test is reliable in most cases, it is not the *exclusive* test.

I agree with the Court that, in light of the uncertainty that currently pervades this field, it is prudent to provide further guidance. But I would take a different approach. Rather than making any broad statements about how to define the term "process" in §101 or tinkering with the bounds of the category of unpatentable, abstract ideas, I would restore patent law to its historical and constitutional moorings.

For centuries, it was considered well established that a series of steps for conducting business was not, in itself, patentable. In the late 1990's, the Federal Circuit

and others called this proposition into question. Congress quickly responded to a Federal Circuit decision with a stopgap measure designed to limit a potentially significant new problem for the business community. It passed the First Inventors Defense Act of 1999 (1999 Act), 113 Stat. 1501A-555 (codified at 35 U.S.C. §273), which provides a limited defense to claims of patent infringement, see §273(b), for "method[s] of doing or conducting business," §273(a)(3). Following several more years of confusion, the Federal Circuit changed course, overruling recent decisions and holding that a series of steps may constitute a patentable process only if it is tied to a machine or transforms an article into a different state or thing. This "machine-or-transformation test" excluded general methods of doing business as well as, potentially, a variety of other subjects that could be called processes.

The Court correctly holds that the machine-or-transformation test is not the sole test for what constitutes a patentable process; rather, it is a critical clue. But the Court is quite wrong, in my view, to suggest that any series of steps that is not itself an abstract idea or law of nature may constitute a "process" within the meaning of §101. The language in the Court's opinion to this effect can only cause mischief. The wiser course would have been to hold that petitioners' method is not a "process" because it describes only a general method of engaging in business transactions—and business methods are not patentable. More precisely, although a process is not patent-ineligible simply because it is useful for conducting business, a claim that merely describes a method of doing business does not qualify as a "process" under §101.

[In Part I of his concurrence, Justice Stevens recounts the procedural history of the case.]

II.

Before explaining in more detail how I would decide this case, I will comment briefly on the Court's opinion. The opinion is less than pellucid in more than one respect, and, if misunderstood, could result in confusion or upset settled areas of the law. Three preliminary observations may be clarifying.

First, the Court suggests that the terms in the Patent Act must be read as lay speakers use those terms, and not as they have traditionally been understood in the context of patent law. See, e.g., *ante*, at ___ (terms in §101 must be viewed in light of their "ordinary, contemporary, common meaning"); *ante*, at ___ (patentable "method" is any "orderly procedure or process," "regular way or manner of doing anything," or "set form of procedure adopted in investigation or instruction" (internal quotation marks omitted)). As I will explain at more length in Part III, *infra*, if this portion of the Court's opinion were taken literally, the results would be absurd: Anything that constitutes a series of steps would be patentable so long as it is novel, nonobvious, and described with specificity. But the opinion cannot be taken literally on this point. The Court makes this clear when it accepts that the "atextual" machine-or-transformation test, *ante*, at ___, is "useful and important," *ante*, at ___, even though it "violates" the stated "statutory interpretation principles," *ante*, at ___; and when the Court excludes processes that tend to pre-empt commonly used ideas, see *ante*, at ___ - ___.

Second, in the process of addressing the sole issue presented to us, the opinion uses some language that seems inconsistent with our centuries-old reliance on the machine-or-transformation criteria as clues to patentability. Most notably, the opinion for a plurality suggests that these criteria may operate differently when addressing technologies of a recent vintage. See *ante*, at ___ (machine-or-transformation test is useful “for evaluating processes similar to those in the Industrial Age,” but is less useful “for determining the patentability of inventions in the Information Age”). In moments of caution, however, the opinion for the Court explains—correctly—that the Court is merely restoring the law to its historical state of rest. See *ante*, at ___ (“This Court’s precedents establish that the machine-or-transformation test is a useful and important clue, an investigative tool, for determining whether some claimed inventions are processes under §101”). Notwithstanding this internal tension, I understand the Court’s opinion to hold only that the machine-or-transformation test remains an important test for patentability. Few, if any, processes cannot effectively be evaluated using these criteria.

Third, in its discussion of an issue not contained in the questions presented—whether the particular series of steps in petitioners’ application is an abstract idea—the Court uses language that could suggest a shift in our approach to that issue. Although I happen to agree that petitioners seek to patent an abstract idea, the Court does not show how this conclusion follows “clear[ly],” *ante*, at ___, from our case law. The patent now before us is not for “[a] principle, in the abstract,” or a “fundamental truth.” *Parker v. Flook*, 437 U.S. 584, 589 (1978) (internal quotation marks omitted). Nor does it claim the sort of phenomenon of nature or abstract idea that was embodied by the mathematical formula at issue in *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972), and in *Flook*.

The Court construes petitioners’ claims on processes for pricing as claims on “the basic concept of hedging, or protecting against risk,” *ante*, at ___, and thus discounts the application’s discussion of what sorts of data to use, and how to analyze those data, as mere “token postsolution components,” *ante*, at ___. In other words, the Court artificially limits petitioners’ claims to hedging, and then concludes that hedging is an abstract idea rather than a term that describes a category of processes including petitioners’ claims. Why the Court does this is never made clear. One might think that the Court’s analysis means that any process that utilizes an abstract idea is *itself* an unpatentable, abstract idea. But we have never suggested any such rule, which would undermine a host of patentable processes. It is true, as the Court observes, that petitioners’ application is phrased broadly. See *ante*, at ___. But claim specification is covered by §112, not §101; and if a series of steps constituted an unpatentable idea merely because it was described without sufficient specificity, the Court could be calling into question some of our own prior decisions.¹ At points, the opinion suggests that novelty is

1. For example, a rule that broadly-phrased claims cannot constitute patentable processes could call into question our approval of Alexander Graham Bell’s famous fifth claim on “[t]he method of, and apparatus for, transmitting vocal or other sounds telegraphically, as herein described, by causing electrical undulations, similar in form to the vibrations of the air accompanying the said vocal or other sounds, substantially as set forth,” *The Telephone Cases*, 126 U.S. 1, 531 (1888).

the clue. See *ante*, at ___. But the fact that hedging is “long prevalent in our system of commerce,” *ibid.*, cannot justify the Court’s conclusion, as “the proper construction of §101 . . . does not involve the familiar issu[e] of novelty” that arises under §102. *Flook*, 437 U.S., at 588. At other points, the opinion for a plurality suggests that the analysis turns on the category of patent involved. See, e.g., *ante*, at ___ (courts should use the abstract-idea rule as a “too [l]” to set “a high enough bar” “when considering patent applications of this sort”). But we have never in the past suggested that the inquiry varies by subject matter.

The Court, in sum, never provides a satisfying account of what constitutes an unpatentable abstract idea. Indeed, the Court does not even explain if it is using the machine-or-transformation criteria. The Court essentially asserts its conclusion that petitioners’ application claims an abstract idea. This mode of analysis (or lack thereof) may have led to the correct outcome in this case, but it also means that the Court’s musings on this issue stand for very little.

III.

I agree with the Court that the text of §101 must be the starting point of our analysis. As I shall explain, however, the text must not be the end point as well.

Section 101 undoubtedly defines in “expansive terms” the subject matter eligible for patent protection, as the statute was meant to ensure that “‘ingenuit[ies] receive a liberal encouragement.’” *Diamond v. Chakrabarty*, 447 U.S. 303, 308-309 (1980). Nonetheless, not every new invention or discovery may be patented. Certain things are “free for all to use.” *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 151 (1989).

The text of the Patent Act does not on its face give much guidance about what constitutes a patentable process. The statute defines the term “process” as a “process, art or method [that] includes a new use of a known process, machine, manufacture, composition of matter, or material.” §100(b). But, this definition is not especially helpful, given that it also uses the term “process” and is therefore somewhat circular.

As lay speakers use the word “process,” it constitutes any series of steps. But it has always been clear that, as used in §101, the term does not refer to a “process” in the ordinary sense of the word,” *Flook*, 437 U.S., at 588; see also *Corning v. Burden*, 15 How. 252, 268 (1854) (“[T]he term process is often used in a more vague sense, in which it cannot be the subject of a patent”). Rather, as discussed in some detail in Part IV, *infra*, the term “process” (along with the definitions given to that term) has long accumulated a distinctive meaning in patent law. When the term was used in the 1952 Patent Act, it was neither intended nor understood to encompass any series of steps or any way to do any thing.

With that understanding in mind, the Government has argued that because “a word” in a statute “is given more precise content by the neighboring words with which it” associates, *United States v. Williams*, 553 U.S. 285, 294 (2008), we may draw inferences from the fact that “[t]he other three statutory categories of

patent-eligible subject matter identified in Section 101 — ‘machine, manufacture, or composition of matter’ — all ‘are things made by man, and involve technology.’” Brief for Respondent 26. Specifically, the Government submits, we may infer “that the term ‘process’ is limited to technological and industrial methods.” *Ibid.* The Court rejects this submission categorically, on the ground that “§100(b) already explicitly defines the term ‘process.’” *Ante*, at _____. But §100(b) defines the term “process” by using the term “process,” as well as several other general terms. This is not a case, then, in which we must *either* “follow” a definition, *ante*, at _____, or rely on neighboring words to understand the scope of an ambiguous term. The definition itself contains the very ambiguous term that we must define.

In my view, the answer lies in between the Government’s and the Court’s positions: The terms adjacent to “process” in §101 provide a clue as to its meaning, although not a very strong clue. Section 101’s list of categories of patentable subject matter is phrased in the disjunctive, suggesting that the term “process” has content distinct from the other items in the list. It would therefore be illogical to “rob” the word “process” of all independent meaning. Moreover, to the extent we can draw inferences about what is a “process” from common attributes in §101, it is a dangerous endeavor to do so on the basis of a perceived overarching theme. Given the many moving parts at work in the Patent Act, there is a risk of merely confirming our preconceived notions of what should be patentable or of seeing common attributes that track “the familiar issues of novelty and obviousness” that arise under other sections of the statute but are not relevant to §101, *Flook*, 437 U.S., at 588. The placement of “process” next to other items thus cannot prove that the term is limited to any particular categories; it does, however, give reason to be skeptical that the scope of a patentable “process” extends to cover any series of steps at all.

The Court makes a more serious interpretive error. As briefly discussed in Part II, *supra*, the Court at points appears to reject the well-settled proposition that the term “process” in §101 is not a “‘process’ in the ordinary sense of the word,” *Flook*, 437 U.S., at 588. Instead, the Court posits that the word “process” must be understood in light of its “ordinary, contemporary, common meaning,” *ante*, at _____ (internal quotation marks omitted). Although this is a fine approach to statutory interpretation in general, it is a deeply flawed approach to a statute that relies on complex terms of art developed against a particular historical background.² Indeed, the approach would render §101 almost comical. A process for training a dog, a series of dance steps, a method of shooting a basketball, maybe even words, stories, or songs if framed as the steps of typing letters or uttering sounds — all would be patent-eligible. I am confident that the term “process” in §101 is not nearly so capacious.

So is the Court, perhaps. What is particularly incredible about the Court’s stated method of interpreting §101 (other than that the method itself may be

2. For example, if this Court were to interpret the Sherman Act according to the Act’s plain text, it could prohibit “the entire body of private contract,” *National Soc. of Professional Engineers v. United States*, 435 U.S. 679, 688 (1978).

patent-eligible under the Court’s theory of §101) is that the Court deviates from own professed commitment to “ordinary, contemporary, common meaning.” noted earlier, the Court accepts a role for the “atextual” machine-or-transformation “clue.” *Ante*, at _____, _____. The Court also accepts that we have “foreclosed [a] purely literal reading of §101,” *Flook*, 437 U.S., at 589, by holding that claims are close to “laws of nature, natural phenomena, and abstract ideas,” *Diamond Diehr*, 450 U.S. 175, 185 (1981), do not count as “processes” under §101, even if they can be colloquially described as such. The Court attempts to justify this last exception to §101 as “a matter of statutory *stare decisis*.” *Ante*, at _____. But it is strange to think that the very same term must be interpreted literally on some occasions and in light of its historical usage on others.

In fact, the Court’s understanding of §101 is even more remarkable because of its willingness to *exclude* general principles from the provision’s reach in tension with its apparent willingness to *include* steps for conducting business. The history of patent law contains strong norms against patenting these two categories of subject matter. Both norms were presumably incorporated by Congress into the Patent Act in 1952.

IV.

Because the text of §101 does not on its face convey the scope of patentable processes, it is necessary, in my view, to review the history of our patent law in some detail. This approach yields a much more straightforward answer to this question than the Court’s. As I read the history, it strongly supports the conclusion that the method of doing business is not a “process” under §101.

I am, of course, mindful of the fact that §101 “is a dynamic provision designed to encompass new and unforeseen inventions,” and that one must therefore view historical conceptions of patent-eligible subject matter at an appropriately high level of generality. *J.E.M. Ag Supply*, 534 U.S., at 135. But it is nonetheless significant that while people have long innovated in fields of business methods of doing business fall outside of the subject matter that has “historically been eligible to receive the protection of our patent laws,” *Diehr*, 450 U.S., at 185, and likely go beyond what the modern patent “statute was enacted to protect,” *Flook*, 437 U.S., at 593. It is also significant that when Congress enacted the last Patent Act, it did so against the background of a well-settled understanding that a series of steps for conducting business cannot be patented. These considerations ought to guide our analysis. As Justice Holmes noted long ago, sometimes, “a page of history is worth a volume of logic.” *New York Trust Co. v. Eisner*, 256 U.S. 349 (1921).

English Backdrop

The Constitution’s Patent Clause was written against the “backdrop” of English patent practices, *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 5 (1966).

and early American patent law was “largely based on and incorporated” features of the English patent system. E. Walterscheid, *To Promote the Progress of Useful Arts: American Patent Law and Administration, 1789-1836*, p. 109 (1998) (hereinafter Walterscheid, *To Promote the Progress*). The governing English law, the Statute of Monopolies, responded to abuses whereby the Crown would issue letters patent, “granting monopolies to court favorites in goods or businesses which had long before been enjoyed by the public.” *Graham*, 383 U.S., at 5.

Although it is difficult to derive a precise understanding of what sorts of methods were patentable under English law, there is no basis in the text of the Statute of Monopolies, nor in pre-1790 English precedent, to infer that business methods could qualify. There was some debate throughout the relevant time period about what processes could be patented. But it does not appear that anyone seriously believed that one could patent “a method for organizing human activity.” 545 F.3d, at 970 (Dyk, J., concurring). [From footnote: See also Pollack, *The Multiple Unconstitutionality of Business Method Patents: Common Sense, Congressional Consideration, and Constitutional History*, 28 Rutgers Computer & Tech. L.J. 61, 94-96 (2002) (hereinafter Pollack) (describing English practice)].

There were a small number of patents issued between 1623 and 1790 relating to banking or lotteries and one for a method of life insurance, but these did not constitute the “prevail[ing]” “principles and practice” in England on which our patent law was based, *Penmock v. Dialogue*, 2 Pet. 1, 18 (1829). Such patents were exceedingly rare, and some of them probably were viewed not as inventions or discoveries but rather as special state privileges that until the mid-1800’s were recorded alongside inventions in the patent records, see [C. MacLeod, *Inventing the Industrial Revolution: The English Patent System, 1660-1800* (1988), at pp. 1-2] (explaining that various types of patents were listed together). It appears that the only English patent of the time that can fairly be described as a business method patent was one issued in 1778 on a “Plan for assurances on lives of persons from 10 to 80 years of Age.” Woodcroft 324. And “[t]here is no indication” that this patent “was ever enforced or its validity tested,” 545 F.3d, at 974 (Dyk, J., concurring); the patent may thus have represented little more than the whim—or error—of a single patent clerk.

In any event, these patents (or patent) were probably not known to the Framers of early patent law. In an era before computerized databases, organized case law, and treatises, the American drafters probably would have known about particular patents only if they were well publicized or subject to reported litigation. So far as I am aware, no published cases pertained to patents on business methods.

Also noteworthy is what was *not* patented under the English system. During the 17th and 18th centuries, Great Britain saw innovations in business organization, business models, management techniques, and novel solutions to the challenges of operating global firms in which subordinate managers could be reached only by a long sea voyage. Few if any of these methods of conducting business were patented. [citing Pollack 97-100 and other sources, including Ronald Harris, *The Bubble Act: Its Passage and its Effects on Business Organization*, 54 J. Econ. Hist. 610, 624-625 (1994)].

Early American Patent Law

At the Constitutional Convention, the Founders decided to give Congress a patent power so that it might “promote the Progress of . . . useful Arts.” Art. I, §8, cl. 8. There is little known history of that Clause. We do know that the Clause passed without objection or debate. This is striking because other proposed powers, such as a power to grant charters of incorporation, generated discussion about the fear that they might breed “monopolies.” Indeed, at the ratification conventions, some States recommended amendments that would have prohibited Congress from granting “exclusive advantages of commerce.” If the original understanding of the Patent Clause included the authority to patent methods of doing business, it might not have passed so quietly.

In 1790, Congress passed the first Patent Act. . . . [W]e know that the term “useful arts” was used in the founding era to refer to manufacturing and similar applied trades. See . . . Thomas, *The Patenting of the Liberal Professions*, 40 Boston College L.Rev. 1139, 1164 (1999) (“[The Framers of the Constitution] undoubtedly contemplated the industrial, mechanical and manual arts of the late eighteenth Century, in contrast to the seven ‘liberal arts’ and the four ‘fine arts’ of classical learning”). Indeed, just days before the Constitutional Convention, one delegate listed examples of American progress in “manufactures and the useful arts,” all of which involved the creation or transformation of physical substances. See T. Coxe, *An Address to an Assembly of the Friends of American Manufactures* 17-18 (1787) (listing, *inter alia*, meal, ships, liquors, potash, gunpowder, paper, starch, articles of iron, stone work, carriages, and harnesses). Numerous scholars have suggested that the term “useful arts” was widely understood to encompass the fields that we would now describe as relating to technology or “technological arts.” [Citing, *inter alia*, Samuelson, *Benson Revisited: The Case Against Patent Protection for Algorithms and Other Computer-Related Inventions*, 39 Emory L.J. 1025, 1033, n. 24 (1990).]

Thus, fields such as business and finance were not generally considered part of the “useful arts” in the founding Era. See, *e.g.*, *The Federalist* No. 8, p. 69 (C. Rossiter ed. 1961) (A. Hamilton) (distinguishing between “the arts of industry, and the science of finance”); 30 *The Writings of George Washington 1745-1799*, p. 186 (J. Fitzpatrick ed. 1939) (writing in a letter that “our commerce has been considerably curtailed,” but “the useful arts have been almost imperceptible pushed to a considerable degree of perfection”). Indeed, the same delegate to the Constitutional Convention who gave an address in which he listed triumphs in the useful arts distinguished between those arts and the conduct of business. He explained that investors were now attracted to the “manufactures and the useful arts,” much as they had long invested in “commerce, navigation, stocks, banks, and insurance companies.” T. Coxe, *A Statement of the Arts and Manufactures of the United States of America for the Year 1810*, (1814), in 2 *American State Papers, Finance* 666, 688 (1832).

Some scholars have remarked, as did Thomas Jefferson, that early patent statutes neither included nor reflected any serious debate about the precise scope of patentable subject matter. See, *e.g.*, *Graham*, 383 U.S., at 9-10, 86 S.Ct.

684 (discussing Thomas Jefferson's observations). It has been suggested, however, that "[p]erhaps this was in part a function of an understanding—shared widely among legislators, courts, patent office officials, and inventors—about what patents were meant to protect. Everyone knew that manufactures and machines were at the core of the patent system." Merges, Property Rights for Business Concepts and Patent System Reform, 14 Berkeley Tech. L.J. 577, 585 (1999) (hereinafter Merges). Thus, although certain processes, such as those related to the technology of the time, might have been considered patentable, it is possible that "[a]gainst this background, it would have been seen as absurd for an entrepreneur to file a patent" on methods of conducting business. *Ibid.*

Development of American Patent Law

During the first years of the patent system, no patents were issued on methods of doing business. Indeed, for some time, there were serious doubts as to "the patentability of processes per se," as distinct from the physical end product or the tools used to perform a process. *Id.*, at 581-582.

Although courts occasionally struggled with defining what was a patentable "art" during those 160 years, they consistently rejected patents on methods of doing business. The rationales for those decisions sometimes varied. But there was an overarching theme, at least in dicta: Business methods are not patentable arts. See, e.g., *United States Credit Sys. Co. v. American Credit Indem. Co.*, 53 F. 818, 819 (CCSDNY 1893) ("method of insuring against loss by bad debts" could not be patented "as an art"); *Hotel Security Checking Co. v. Lorraine Co.*, 160 F. 467, 469 (C.A.2 1908) ("A system of transacting business disconnected from the means for carrying out the system is not, within the most liberal interpretation of the term, an art"); *Guthrie v. Curlett*, 10 F.2d 725, 726 (C.A.2 1926) (method of abbreviating rail tariff schedules, "if it be novel, is not the kind of art protected by the patent acts"); *In re Patton*, 127 F.2d 324, 327-328 (CCPA 1942) (holding that novel "interstate and national fire-fighting system" was not patentable because, *inter alia*, "a system of transacting business, apart from the means for carrying out such system is not" an art within the meaning of the patent law, "nor is an abstract idea or theory, regardless of its importance or . . . ingenuity"); *Loew's Drive-in Theatres, Inc. v. Park-in Theatres, Inc.*, 174 F.2d 547, 552 (C.A.1 1949) ("[A] system for the transaction of business, such, for example, as the cafeteria system for transacting the restaurant business . . . however novel, useful, or commercially successful is not patentable apart from the means for making the system practically useful, or carrying it out"); *Joseph E. Seagram & Sons, Inc. v. Marzall*, 180 F.2d 26, 28 (C.A.D.C.1950) (method of focus-group testing for beverages is not patentable subject matter); see also *In re Howard*, 55 C.C.P.A. 1121, 394 F.2d 869, 872 (CCPA 1968) (Kirkpatrick, J., concurring) (explaining that a "method of doing business" cannot be patented). Between 1790 and 1952, this Court never addressed the patentability of business methods. But we consistently focused the inquiry on whether an "art" was connected to a machine or physical transformation, an inquiry that would have excluded methods of doing business.

By the early 20th century, it was widely understood that a series of steps for conducting business could not be patented. A leading treatise, for example, listed "systems" of business" as an "unpatentable subject[.]" I A. Deller, Walker on Patents §18, p. 62 (1937) [and citing other sources].

Modern American Patent Law

[I]n 1952, when Congress updated the patent laws as part of its ongoing project to revise the United States Code, it changed the operative language in §101, replacing the term "art" with "process" and adding a definition of "process" as a "process, art or method," §100(b).

That change was made for clarity and did not alter the scope of a patentable "process." See *Diehr*, 450 U.S., at 184. The new terminology was added only in recognition of the fact that courts had been interpreting the category "art" by using the terms "process or method"; Congress thus wanted to avoid "the necessity of explanation that the word 'art' as used in this place means 'process or method.'" S.Rep. No.1979, 82d Cong., 2d Sess., 5 (1952) (hereinafter S. Rep. 1979); accord, H.R.Rep. No.1923, 82d Cong., 2d Sess., 6 (1952) (hereinafter H.R. Rep. 1923).

It appears that when Congress changed the language in §101 to incorporate the prevailing judicial terminology, it merely codified the prevailing judicial interpretation of that category of subject matter. Indeed, one of the main drafters of the Act explained that the definition of the term "process" in §100(b) reflects "how the courts have construed the term 'art.'" Tr. of address by Judge Giles S. Rich to the New York Patent Law Association 7-8 (Nov. 6, 1952).

"Anything Under the Sun"

Despite strong evidence that Congress has consistently authorized patents for a limited class of subject matter and that the 1952 Act did not alter the nature of the then-existing limits, petitioners and their *amici* emphasize a single phrase in the Act's legislative history, which suggests that the statutory subject matter "include[s] anything under the sun that is made by man." Brief for Petitioners 19 (quoting *Chakrabarty*, 447 U.S., at 309, in turn quoting S. Rep.1979, at 5). Similarly, the Court relies on language from our opinion in *Chakrabarty* that was based in part on this piece of legislative history. See *ante*, at —, —.

This reliance is misplaced. We have never understood that piece of legislative history to mean that any series of steps is a patentable process. Indeed, if that were so, then our many opinions analyzing what is a patentable process were simply wastes of pages in the U.S. Reports. And to accept that errant piece of legislative history as widening the scope of the patent law would contradict other evidence in the congressional record, as well as our presumption that the 1952 Act merely codified the meaning of "process" and did not expand it, see *Diehr*, 450 U.S., at 184.

Taken in context, it is apparent that the quoted language has a far less expansive meaning. The full sentence in the Committee Reports reads: "A person may have 'invented' a machine or a manufacture, which may include anything under

the sun that is made by man, but it is not necessarily patentable under section 101 unless the conditions of [this] title are fulfilled." S.Rep.1979, at 5; H.R. Rep.1923, at 6. Viewed as a whole, it seems clear that this language does not purport to explain that "anything under the sun" is patentable. Indeed, the language may be understood to state the exact opposite: that "[a] person may have 'invented' . . . anything under the sun," but that thing "is not necessarily patentable under section 101." Thus, even in the *Chakrabarty* opinion, which relied on this quote, we cautioned that the 1952 Reports did not "suggest that §101 has no limits or that it embraces every discovery." 447 U.S., at 309.

Moreover, even if the language in the Committee Reports was meant to flesh out the meaning of any portion of §101, it did not purport to define the term "process." The language refers only to "manufacture[s]" and "machine[s]," tangible objects "made by man." It does not reference the "process" category of subject matter (nor could a process be comfortably described as something "made by man"). The language may also be understood merely as defining the term "invents" in §101.

The 1952 Act, in short, cannot be understood as expanding the scope of patentable subject matter by suggesting that any series of steps may be patented as a "process" under §101. If anything, the Act appears to have codified the conclusion that subject matter which was understood not to be patentable in 1952 was to remain unpatentable.

* * *

Since at least the days of Assyrian merchants, people have devised better and better ways to conduct business. Yet it appears that neither the Patent Clause, nor early patent law, nor the current §101 contemplated or was publicly understood to mean that such innovations are patentable. Although it may be difficult to define with precision what is a patentable "process" under §101, the historical clues converge on one conclusion: A business method is not a "process." And to the extent that there is ambiguity, we should be mindful of our judicial role. "[W]e must proceed cautiously when we are asked to extend patent rights" into an area that the Patent Act likely was not "enacted to protect," *Flook*, 437 U.S., at 596, 593, lest we create a legal regime that Congress never would have endorsed, and that can be repaired only by disturbing settled property rights.

V.

Despite the strong historical evidence that a method of doing business does not constitute a "process" under §101, petitioners nonetheless argue—and the Court suggests in dicta, *ante*, at — that a subsequent law, the First Inventor Defense Act of 1999, "must be read together" with §101 to make business methods patentable. Brief for Petitioners 29. This argument utilizes a flawed method of statutory interpretation and ignores the motivation for the 1999 Act.

In 1999, following a Federal Circuit decision that intimated business methods could be patented, see *State Street*, 149 F.3d 1368, Congress moved quickly to limit the potential fallout. Congress passed the 1999 Act, codified at 35 U.S.C. §273, which provides a limited defense to claims of patent infringement, see §273(b), regarding certain "method[s] of doing or conducting business," §273(a)(3).

It is apparent, both from the content and history of the Act, that Congress did not in any way ratify *State Street* (or, as petitioners contend, the broadest possible reading of *State Street*). The Act merely limited one potential effect of that decision: that businesses might suddenly find themselves liable for innocently using methods they assumed could not be patented. The Act did not purport to amend the limitations in §101 on eligible subject matter. Indeed, Congress placed the statute in Part III of Title 35, which addresses "Patents and Protection of Patent Rights," rather than in Part II, which contains §101 and addresses "Patentability of Inventions and Grant of Patents." Particularly because petitioners' reading of the 1999 Act would expand §101 to cover a category of processes that have not "historically been eligible" for patents, *Diehr*, 450 U.S., at 184, 101 S.Ct. 1048, we should be loathe to conclude that Congress effectively amended §101 without saying so clearly. We generally presume that Congress "does not, one might say, hide elephants in mouseholes." *Whitman v. American Trucking Assns., Inc.*, 531 U.S. 457, 468 (2001).

The Act therefore is, at best, merely evidence of 1999 legislative views on the meaning of the earlier, 1952 Act. "[T]he views of a subsequent Congress," however, "form a hazardous basis for inferring the intent of an earlier one." *United States v. Price*, 361 U.S. 304, 313 (1960). When a later statute is offered as "an expression of how the . . . Congress interpreted a statute passed by another Congress . . . a half century before," "such interpretation has very little, if any, significance." *Rainwater v. United States*, 356 U.S. 590, 593 (1958).

Furthermore, even assuming that Congress' views at the turn of the 21st century could potentially serve as a valid basis for interpreting a statute passed in the mid-20th century, the First Inventor Defense Act does not aid petitioners because it does not show that the later Congress itself understood §101 to cover business methods. If anything, it shows that a few judges on the Federal Circuit understood §101 in that manner and that Congress understood what those judges had done. The Act appears to reflect surprise and perhaps even dismay that business methods might be patented. Thus, in the months following *State Street*, congressional authorities lamented that "business methods and processes . . . until recently were thought not to be patentable," H.R.Rep. No. 106-464, p. 121 (1999); accord, H.R.Rep. No. 106-287, pt. 1, p. 31 (1999). The fact that Congress decided it was appropriate to create a new *defense* to claims that business method patents were being infringed merely demonstrates recognition that such claims could create a significant new problem for the business community.

The Court nonetheless states that the 1999 Act "acknowledges that there may be business method patents," thereby "clarify[ing]" its "understanding" of §101. *Ante*, at —. More specifically, the Court worries that if we were to interpret the 1952 Act to exclude business methods, our interpretation "would render §273 meaningless." *Ibid*. I agree that "[a] statute should be construed so that effect is

given to all its provisions." *Corley v. United States*, 556 U.S. ___, ___, 129 S.Ct. 1558, 1566 (2009) (internal quotation marks omitted). But it is a different matter altogether when the Court construes one statute, the 1952 Act, to give effect to a different statute, the 1999 Act.

Put another way, we ordinarily assume, quite sensibly, that Congress would not in one statute include two provisions that are at odds with each other. But as this case shows, that sensible reasoning can break down when applied to different statutes. The 1999 Act was passed to limit the impact of the Federal Circuit's then-recent statements on the 1952 Act. Although repudiating that judicial dictum (as we should) might effectively render the 1999 Act a nullity going forward, such a holding would not mean that it was a nullity when Congress enacted it. Section 273 may have been a technically unnecessary response to confusion about patentable subject matter, but it appeared necessary in 1999 in light of what was being discussed in legal circles at the time.

In light of its history and purpose, I think it obvious that the 1999 Congress would never have enacted §273 if it had foreseen that this Court would rely on the provision as a basis for concluding that business methods are patentable. Section 273 is a red herring; we should be focusing our attention on §101 itself.

VI.

The constitutionally mandated purpose and function of the patent laws bolster the conclusion that methods of doing business are not "processes" under §101.

The Constitution allows Congress to issue patents "[t]o promote the Progress of . . . useful Arts," Art. I, §8, cl. 8. This clause "is both a grant of power and a limitation." *Graham*, 383 U.S., at 5. It "reflects a balance between the need to encourage innovation and the avoidance of monopolies which stifle competition without any concomitant advance in the 'Progress of Science and useful Arts.'" *Bonito Boats*, 489 U.S., at 146. Thus, although it is for Congress to "implement the stated purpose of the Framers by selecting the policy which in its judgment best effectuates the constitutional aim," *Graham*, 383 U.S., at 6, we interpret ambiguous patent laws as a set of rules that "wee[d] out those inventions which would not be disclosed or devised but for the inducement of a patent," *id.*, at 11, and that "embod[y]" the "careful balance between the need to promote innovation and the recognition that imitation and refinement through imitation are both necessary to invention itself and the very lifeblood of a competitive economy," *Bonito Boats*, 489 U.S., at 146.

Although there is certainly disagreement about the need for patents, scholars generally agree that when innovation is expensive, risky, and easily copied, inventors are less likely to undertake the guaranteed costs of innovation in order to obtain the mere possibility of an invention that others can copy. Both common sense and recent economic scholarship suggest that these dynamics of cost, risk, and reward vary by the type of thing being patented. [See, *e.g.*, Burk & Lemley,

Policy Levers in Patent Law, 89 Va. L.Rev. 1575, 1577-1589 (2003) (hereinafter Burk & Lemley).]

Many have expressed serious doubts about whether patents are necessary to encourage business innovation. [See, *e.g.*, Burk & Lemley 1618;]; Dreyfuss, Are Business Methods Patents Bad for Business? 16 Santa Clara Computer & High Tech. L.J. 263, 274-277 (2000); Posner, The Law and Economics of Intellectual Property, 131 *Daedalus* 5 (Spring 2002).]. Although counterfactuals are a dubious form of analysis, I find it hard to believe that many of our entrepreneurs forwent business innovation because they could not claim a patent on their new methods.

"[C]ompanies have ample incentives to develop business methods even without patent protection, because the competitive marketplace rewards companies that use more efficient business methods." Burk & Lemley 1618. Innovators often capture advantages from new business methods notwithstanding the risk of others copying their innovation. Some business methods occur in secret and therefore can be protected with trade secrecy. And for those methods that occur in public, firms that innovate often capture long-term benefits from doing so, thanks to various first mover advantages, including lockins, branding, and networking effects. [See Burk & Lemley 1618; Dreyfuss 275. Concededly, there may some methods of doing business that do not confer sufficient first-mover advantages. See Abramowicz & Duffy, Intellectual Property for Market Experimentation, 83 N.Y.U. & ensp;L.Rev. 337, 340-342 (2008).]

The primary concern is that patents on business methods may prohibit a wide swath of legitimate competition and innovation. As one scholar explains, "it is useful to conceptualize knowledge as a pyramid: the big ideas are on top; specific applications are at the bottom." Dreyfuss 275. The higher up a patent is on the pyramid, the greater the social cost and the greater the hindrance to further innovation. [See Merges & Nelson, On the Complex Economics of Patent Scope, 90 *Colum. L. Rev.* 839, 873-878 (1990).]

If business methods could be patented, then many business decisions, no matter how small, could be *potential* patent violations. Businesses would either live in constant fear of litigation or would need to undertake the costs of searching through patents that describe methods of doing business, attempting to decide whether their innovation is one that remains in the public domain. See Long, Information Costs in Patent and Copyright, 90 Va. L.Rev. 465, 487-488 (2004) [See also P. Menell & S. Scotchmer, Intellectual Property Law, in 2 *Handbook of Law and Economics* 1500-1501, 1506 (M. Polinsky & S. Shavell eds.2007).]

The constitutional standard for patentability is difficult to apply with any precision, and Congress has significant discretion to "implement the stated purpose of the Framers by selecting the policy which in its judgment best effectuates the constitutional aim," *Graham*, 383 U.S., at 6, 86 S.Ct. 684. But Congress has not, either explicitly or implicitly, determined that patents on methods of doing business would effectuate this aim. And as I understand their practical consequences, it is hard to see how they would.

VII.

The Constitution grants to Congress an important power to promote innovation. In its exercise of that power, Congress has established an intricate system of intellectual property. The scope of patentable subject matter under that system is broad. But it is not endless. In the absence of any clear guidance from Congress, we have only limited textual, historical, and functional clues on which to rely. Those clues all point toward the same conclusion: that petitioners' claim is not a "process" within the meaning of §101 because methods of doing business are not, in themselves, covered by the statute. In my view, acknowledging as much would be a far more sensible and restrained way to resolve this case. Accordingly, while I concur in the judgment, I strongly disagree with the Court's disposition of this case.

Justice BREYER, with whom Justice SCALIA joins as to Part II, concurring in the judgment.

I.

I agree with Justice STEVENS that a "general method of engaging in business transactions" is not a patentable "process" within the meaning of 35 U.S.C. §101. *Ante*, at ___ (STEVENS, J., concurring in judgment). This Court has never before held that so-called "business methods" are patentable, and, in my view, the text, history, and purposes of the Patent Act make clear that they are not. *Ante*, at ___ - ___. I would therefore decide this case on that ground, and I join Justice STEVENS' opinion in full.

I write separately, however, in order to highlight the substantial agreement among many Members of the Court on many of the fundamental issues of patent law raised by this case. In light of the need for clarity and settled law in this highly technical area, I think it appropriate to do so.

II.

In addition to the Court's unanimous agreement that the claims at issue here are unpatentable abstract ideas, it is my view that the following four points are consistent with both the opinion of the Court and Justice STEVENS' opinion concurring in the judgment:

First, although the text of §101 is broad, it is not without limit. See *ante*, at ___ - ___ (opinion of the Court); *ante*, at ___ (STEVENS, J., concurring in judgment). "[T]he underlying policy of the patent system [is] that 'the things which are worth to the public the embarrassment of an exclusive patent,' ... must outweigh the restrictive effect of the limited patent monopoly." *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 10-11 (1966) (quoting Letter from Thomas Jefferson to Isaac McPherson (Aug. 13, 1813), in 6 Writings of Thomas Jefferson 181 (H. Washington ed.)). The Court has thus been careful in interpreting the Patent Act to "determine not only what is protected, but also what is free for all to use." *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 151. In particular, the

Court has long held that "[p]henomena of nature, though just discovered, mental processes, and abstract intellectual concepts are not patentable" under §101, since allowing individuals to patent these fundamental principles would "wholly preempt" the public's access to the "basic tools of scientific and technological work." *Gottschalk v. Benson*, 409 U.S. 63, 67, 72.

Second, in a series of cases that extend back over a century, the Court has stated 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." *Diehr, supra*, at 184 (emphasis added; internal quotation marks omitted). Application of this test, the so-called "machine-or-transformation test," has thus repeatedly helped the Court to determine what is "a patentable 'process.'" *Flook, supra*, at 589.

Third, while the machine-or-transformation test has always been a "useful and important clue," it has never been the "sole test" for determining patentability. *Ante*, at ___; see also *ante*, at ___ (STEVENS, J., concurring in judgment); *Benson, supra*, at 71 (rejecting the argument that "no process patent could ever qualify" for protection under §101 "if it did not meet the [machine-or-transformation] requirements"). Rather, the Court has emphasized that a process claim meets the requirements of §101 when, "considered as a whole," it "is performing a function which the patent laws were designed to protect (*e.g.*, transforming or reducing an article to a different state or thing)." *Diehr, supra*, at 192. The machine-or-transformation test is thus an important example of how a court can determine patentability under §101, but the Federal Circuit erred in this case by treating it as the *exclusive test*.

Fourth, although the machine-or-transformation test is not the only test for patentability, this by no means indicates that anything which produces a "useful, concrete, and tangible result," *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373 (C.A.Fed. 1998), is patentable. "[T]his Court has never made such a statement and, if taken literally, the statement would cover instances where this Court has held the contrary." *Laboratory Corp. of America Holdings v. Metabolite Laboratories, Inc.*, 548 U.S. 124, 136 (2006) (BREYER, J., dissenting from dismissal of certiorari as improvidently granted). Indeed, the introduction of the "useful, concrete, and tangible result" approach to patentability, associated with the Federal Circuit's *State Street* decision, preceded the granting of patents that "ranged from the somewhat ridiculous to the truly absurd." *In re Bilski*, 545 F.3d 943, 1004 (C.A.Fed. 2008) (Mayer, J., dissenting) (citing patents on, *inter alia*, a "method of training janitors to dust and vacuum using video displays," a "system for toilet reservations," and a "method of using color-coded bracelets to designate dating status in order to limit 'the embarrassment of rejection'").

In sum, it is my view that, in reemphasizing that the "machine-or-transformation" test is not necessarily the *sole* test of patentability, the Court intends neither to de-emphasize the test's usefulness nor to suggest that many patentable processes lie beyond its reach.

III.

With these observations, I concur in the Court's judgment.