
UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

CLS BANK INTERNATIONAL,

Plaintiff-Appellee,

and

CLS SERVICES LTD.,

*Counterclaim-Defendant
Appellee,*

v.

ALICE CORPORATION PTY. LTD.,

Defendant-Appellant.

On Appeal from the United States District Court for the District of Columbia in
Case No. 07-CV-0974, Judge Rosemary M. Collyer

**BRIEF OF *AMICI CURIAE* GOOGLE INC., DELL INC., FACEBOOK,
INC., HOMEAWAY, INC., INTUIT INC., RACKSPACE HOSTING, INC.,
RED HAT, INC., AND ZYNGA INC. IN SUPPORT OF PETITIONERS**

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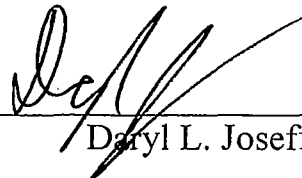
CERTIFICATE OF INTEREST

Counsel for *amici* certifies the following:

1. The full names of every party represented by me are Google Inc., Dell Inc., Facebook, Inc., Homeaway, Inc., Intuit Inc., Rackspace Hosting, Inc., Red Hat, Inc., and Zynga Inc.
2. The names of the real parties in interest represented by me are Google Inc., Dell Inc., Facebook, Inc., Homeaway, Inc., Intuit Inc., Rackspace Hosting, Inc., Red Hat, Inc., and Zynga Inc.
3. No parent corporations or publicly held companies own 10 percent or more of the stock of Google Inc., Dell Inc., Facebook, Inc., Homeaway, Inc., Intuit Inc., Rackspace Hosting, Inc., and Zynga Inc. Red Hat, Inc. has no parent corporation. More than 10% of Red Hat's common stock is held by both Fidelity Management and Research Company and T. Rowe Price Associates, Inc. (a subsidiary of publicly held corporation T. Rowe Price Group, Inc.).
4. The names of all law firms and the partners or associates that appeared for the parties now represented by me in the trial court or are expected to appear in this Court are:

King & Spalding LLP: Daryl L. Joseffer; Adam M. Conrad

This 7th day of December, 2012.



Daryl L. Joseffer

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STATEMENT OF INTEREST¹

Amici are innovative, high-technology companies that are leaders in a variety of fields, including online search, advertising, commerce, collaboration, social networking and gaming, open source software, web hosting, financial software, computing, vacation rentals, and related products and services. Their products are used by everyday citizens, Wall Street investment firms, hundreds of Fortune 500 companies, and the United States government. Having obtained a number of patents based on their own extensive research and development efforts, and having also had to defend against claims of patent infringement, *amici* support a high-quality patent system that rewards rather than impedes innovation.

The Court ordered that *amicus* briefs may be filed without leave of court.

INTRODUCTION

Bare-bones patents like the one asserted in this case are invalid under 35 U.S.C. § 101 because they claim abstract ideas when used on a computer or over the Internet, without more. Because such patents merely divide an abstract idea into its component parts, the real work comes later, when others undertake the innovative task of developing concrete applications. That is the work that may be eligible for patent protection; merely claiming computer implementation of an

¹ No counsel for any party authored this brief in whole or in part, and no person or entity, other than *amici* and their counsel, made a monetary contribution intended to fund the preparation or submission of this brief.

abstract idea without reciting a particular means of computer implementation, is not.

I. In *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289 (2012), the Supreme Court articulated the test for determining patent-eligibility. Under that test—which applies to *all* technologies, including computer-related technologies—a claim crosses the line from covering an unpatentable idea to claiming a patentable application if, in addition to an idea, it “contain[s] other elements or a combination of elements, sometimes referred to as an ‘inventive concept,’ sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the” patent-ineligible idea. *Id.* at 1294 (quoting *Parker v. Flook*, 437 U.S. 584, 594 (1978)). The Court identified four guideposts for making that determination: (1) adding steps or elements that are conventional or obvious is insufficient to confer patent-eligibility; (2) adding general and non-specific steps or elements that do not significantly limit the claim’s scope is insufficient; (3) limiting an idea to a particular technological environment—such as a computerized environment—is insufficient; and (4) claims that fail the machine-or-transformation test are likewise dubious.

The panel majority objected to the Supreme Court’s test, in part because it found the concept of an “abstract idea” to be elusive. Although it is difficult to formulate a one-size-fits-all definition of “abstract idea,” experience has shown

that identifying the abstract idea behind a particular patent claim is generally straightforward. In any event, the Supreme Court's binding jurisprudence does not require a detailed threshold determination of whether an idea is "abstract." Instead, *Mayo* and *Bilski* distinguish abstract ideas from patentable applications by focusing on the *application* side of the idea/application divide: a claim must include significant, inventive limitations to be considered a patent-eligible application. That is the controlling determination, not a separate characterization of the idea itself.

II. As the majority and dissent both recognized, the restrictions on patent-eligibility apply to all patent claims, not only method claims. Here, the asserted system claim recites only a conventional "data storage unit" coupled to a "computer . . . configured to" perform the steps of the method claims. Op. 5. That generic description of computer equipment capable of performing a computer-implemented method is just another way of describing the method. As such, the asserted method and system claims must rise or fall together.

III. They fall together. The asserted claims simply break down the idea of financial intermediation into its component parts, without adding (and limiting themselves to) a particular *way* of implementing that idea with a computer. As a result, they are on the wrong side of *all* the *Mayo* guideposts.

IV. This issue is critically important in the high-tech context. Many computer-related patent claims just describe an abstract idea at a high level of generality and say to perform it on a computer or over the Internet. Such bare-bones claims grant exclusive rights over the abstract idea itself, with no limit on *how* the idea is implemented. Granting patent protection for such claims would impair, not promote, innovation by conferring exclusive rights on those who have *not* meaningfully innovated, and thereby penalizing those that do later innovate by blocking or taxing their applications of the abstract idea.

The abstractness of computer-related patents bears much of the blame for the extraordinarily high litigation and settlement costs associated with such patents. It is, therefore, imperative that courts enforce Section 101's "screening" function (*Mayo*, 132 S. Ct. at 1303) early in most cases, to save defendants and the courts from the unnecessary expense of fully litigating or settling cases—like this one—that should be dismissed at the outset.

ARGUMENT

I. **MAYO SETS FORTH THE TEST FOR DETERMINING WHETHER A PATENT CLAIMS AN UNPATENTABLE ABSTRACT IDEA OR A PATENTABLE APPLICATION OF THE IDEA.**

This Court requested briefing on the question "[w]hat test should the court adopt to determine whether a computer-implemented invention is a patent ineligible 'abstract idea'?" R'Hrg Order 2 (Oct. 9, 2012). The answer is that,

instead of “adopt[ing]” a test of its own, this Court should follow the test the Supreme Court already adopted in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289 (2012). The Supreme Court confirmed that its test applies to all technologies: “[P]atent law’s general rules must govern inventive activity in many different fields of human endeavor.” *Id.* at 1305.

Mayo did not break new ground on that point. On its face, Section 101’s text draws no distinction between different technologies. To the contrary, Congress “designed [Section 101] 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). As a result, the courts have long applied a single test for patent-eligibility. *See, e.g., Ass’n for Molecular Pathology v. PTO*, 689 F.3d 1303, 1330 (Fed. Cir. 2012) (Section 101 “applies equally to all putative inventions”), *cert. granted*, 81 U.S.L.W. 3199 (Nov. 30, 2012) (No. 12-398).

A. The Line Between an Abstract Idea and a Patentable Application Depends on the Inventiveness and Specificity of the Asserted Patent Claim.

It is common ground that, under *Mayo* and its predecessors, abstract ideas, laws of nature, and natural phenomena are not patentable, but concrete applications thereof may be eligible for patenting. *See, e.g., Mayo*, 132 S. Ct. at 1293–94; *Diamond v. Diehr*, 450 U.S. 175, 187 (1981). The panel majority and some commentators have lamented that “no one understands what makes an idea

‘abstract.’” Mark A. Lemley et al., *Life After Bilski*, 63 *Stan. L. Rev.* 1315, 1316 (2011); *accord* Op. 14. There is no need, however, to settle on a general definition of the term “abstract.” In practice, the courts have ordinarily had little difficulty identifying abstract ideas on a case-by-case basis. More important, the *Mayo* test does not focus on the abstract idea side of the line between abstract ideas and patentable applications. Instead, *Mayo* looks to whether a patent claims a specific, concrete application (and is thus patent-eligible), without requiring a detailed, threshold analysis into whether an underlying idea is “abstract” to begin with.

1. Abstract ideas are easier to identify individually than to define generally.

Some of the difficulty in trying to define the term “abstract” for this purpose results from the fact that all patents could be loosely described as abstract because they recite concepts, and are not limited to specific physical objects. In other words, all patent claims involve some kind of idea, and all ideas are inherently abstract in some sense. For example, “a patentable ‘process’ and an unpatentable ‘principle’” are both “conceptions of the mind, seen only by their effects when being executed or performed.” *Parker v. Flook*, 437 U.S. 584, 589 (1978) (quoting *Tilghman v. Proctor*, 102 U.S. 707, 728 (1881)). Thus, trying to draw the line based on a generalized, one-size-fits-all definition of “abstract” is not a fruitful way of distinguishing unpatentable ideas from patentable applications.

Experience has shown, however, that while deriving a general definition is a

challenging exercise, identifying the abstract idea behind any particular application is generally straightforward. In *Bilski v. Kappos*, for example, the Supreme Court explained that the idea at the heart of the patent claim was “hedging, or protecting against risk.” 130 S. Ct. 3218, 3231 (2010). Likewise, in *Gottschalk v. Benson*, the Court rejected patentability for a claim that covered the “idea” of “converting [binary-coded decimal] numerals to pure binary numerals.” 409 U.S. 63, 71 (1972). Significantly, those cases did not involve open and avowed efforts to patent an abstract idea; the asserted claims contained a number of limitations. See *Bilski*, 130 S. Ct. at 3223–24; *Benson*, 409 U.S. at 65–67. In substance, however, the Court had little difficulty concluding that the asserted claims amounted to little more than the abstract ideas quoted above. *Bilski*, 130 S. Ct. at 3231; *Benson*, 409 U.S. at 71–72.

This Court has likewise identified the abstract concepts underlying numerous patent claims on a case-by-case basis. Earlier this year, the Court rejected a claim covering “‘the basic concept’ of processing information through a clearinghouse.” *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012). Many other cases—whether upholding or rejecting claims—have similarly identified the claim’s core idea before addressing its patentability. See, e.g., *Fort Properties, Inc. v. Am. Master Lease LLC*, 671 F.3d 1317, 1322 (Fed. Cir. 2012) (“method of aggregating property, making it subject to an agreement, and then

issuing ownership interests to multiple parties”); *Ultramercial, LLC v. Hulu, LLC*, 657 F.3d 1323, 1328 (Fed. Cir. 2011) (“idea that advertising can be used as a form of currency”), *vacated and remanded sub nom. WildTangent, Inc. v. Ultramercial, LLC*, 132 S. Ct. 2431 (2012); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) (abstract method of credit card fraud detection); *In re Comiskey*, 554 F.3d 967, 981 (Fed. Cir. 2009) (method of “mandatory arbitration resolution”); *In re Schrader*, 22 F.3d 290, 291 (Fed. Cir. 1994) (method of bidding at an auction).

2. *Mayo* sets forth four guideposts for determining whether a claim covers an application of an idea rather than the idea itself.

Significantly, however, the *Mayo* test does not focus on the abstract idea side of the abstract idea/patentable application line. Because *Mayo* comes at the question from the other direction by asking whether a patent claims a practical application, it does not require a detailed threshold analysis of whether a (purportedly applied) idea is “abstract” in an abstract, definitional sense.

Instead, a claim is on the application side of the patentable application/unpatentable idea divide if it “contain[s] other elements or a combination of elements, sometimes referred to as an ‘inventive concept,’ sufficient to ensure that the patent in practice amounts to significantly ‘more than a patent upon’ unpatentable subject matter. *Mayo*, 132 S. Ct. at 1294. The Supreme

Court identified four guideposts for determining patent-eligibility: (1) adding steps or elements that are conventional or obvious is insufficient to confer patentable subject matter, *see id.* at 1294, 1298, 1299; (2) adding general and non-specific steps or elements that do not significantly limit the claim’s scope is insufficient, *see id.* at 1300, 1302; (3) limiting an idea to a particular technological environment is insufficient, *see id.* at 1294, 1297; and (4) claims that fail the machine-or-transformation test are likewise dubious, *see id.* at 1296, 1303. These criteria focus on the generality and breadth of a claim by requiring that it be sufficiently specific and limited in order to be considered a patent-eligible application. The *Mayo* analysis thereby ensures that a patent’s relative contribution to human knowledge justifies the extent to which it forecloses the field. *See id.* at 1301–02.

3. The majority erred by departing from the Supreme Court’s decision in *Mayo*.

The majority, however, chose a different path. After opining that Section 101 jurisprudence has given rise to uncertainty that poses “a serious problem,” Op. 13–14, the majority sought to reduce that uncertainty by curtailing *Mayo*, as the dissent explained. Diss. 3. The majority went so far as to treat Section 101 as a disfavored requirement, *persona non grata* in the law, by holding that a court may invalidate a patent under Section 101 only if it is “wholly convinced” that the patent’s subject matter is abstract, which in turn must be “manifestly evident.” Op. 20, 21 & n.3.

Under *Mayo*, however, any heightened burden runs the other way. A patent claim must include “significantly more” than an abstract idea, in order to give “practical assurance” that the claim is *not* ineligible for patenting. *Mayo*, 132 S. Ct. at 1297.

Minimizing Section 101 would be wholly inconsistent with the structure of the Patent Act. Congress placed Section 101 at the very beginning of the Patent Act. *Mayo* confirms that, as its placement suggests, this threshold requirement performs an important “screening” function. *Id.* at 1303.

The Supreme Court’s decision to articulate a flexible standard, as opposed to a bright-line rule, is no reason to reject its test in favor of a stricter one. The Supreme Court’s decision is binding. And the law is full of flexible standards, which become more concrete when applied in light of articulated guideposts and when considered in light of analogous precedents. The four guideposts here are no less administrable than countless other multi-factor tests, such as this Court’s eight-factor test for determining whether required experimentation is “undue” for purposes of the enablement requirement, *see Streck, Inc. v. Research & Diagnostic Sys., Inc.*, 665 F.3d 1269, 1288 (Fed. Cir. 2012), and this Court’s nine-factor test for enhancing damages based on willfulness, *see Read Corp. v. Portec, Inc.*, 970 F.2d 816, 826–27 (1992). Case-by-case adjudication will continue to provide further guidance on that question, in the same way the common law has generally

developed.

In addition to critiquing the Supreme Court’s reliance on a flexible standard and adopting its own heightened standard, the majority departed from *Mayo* and other Supreme Court precedents in at least three respects: rejecting any consideration of inventiveness as part of the Section 101 analysis; focusing on whether the patent preempts *all* uses of the underlying abstract idea; and considering purported aspects of the patented invention that are not included in the asserted claims.

On the first of those points, the majority took issue with the Supreme Court’s holding that, to comprise patentable subject matter, a claim must contain “an inventive concept” apart from an abstract idea or natural law. *See Mayo*, 132 S. Ct. at 1294. The majority stated that “[i]t should be self-evident that each of these four statutory provisions—§§ 101, 102, 103, and 112—serves a different purpose and plays a distinctly different role.” Op. 12. That assertion squarely conflicts with the Supreme Court’s decision, which rejected the formalistic view that each of the patentability provisions resides in a separate silo with no “overlap” between them. *Mayo*, 132 S. Ct. at 1304.

Mayo determined that, because Section 101 is a substantive requirement that cannot be defeated by the drafter’s art, undisputedly routine and conventional steps or elements cannot turn an abstract idea into a patentable application. 132 S. Ct. at

1294, 1299–1300. At the Supreme Court level, that was not a new conclusion. Although the Court had arguably sent mixed signals, *see Diehr*, 450 U.S. at 188–89, *Mayo*—which is now the controlling Supreme Court decision—is the fourth decision of that Court invalidating a patent under Section 101 based in part on considerations of inventiveness. *See also Bilski*, 130 S. Ct. at 3231; *Flook*, 437 U.S. at 593; *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 131–32 (1948). In *Flook* and *Funk Brothers*, for example, the Court emphasized that the discovery of a mathematical formula or natural phenomenon “cannot support a patent unless there is some other *inventive* concept in its application.” *Flook*, 437 U.S. at 594 (emphasis added); *accord Funk Bros.*, 333 U.S. at 127–28. In *Bilski*, the Court likewise held that the narrowest of the asserted claims were not patent-eligible because, although they contained a number of limitations on the use of the abstract idea of hedging risk, those limitations were “well-known,” and thus insufficient to convert the abstract idea of hedging risk into a patentable application. 130 S. Ct. at 3224, 3231.

The Supreme Court’s decision to consider inventiveness as part of the Section 101 inquiry can make the result *more* clear and predictable by laying down an enforceable standard. As the dissent noted, for example, it is often the case that a patent will describe additional claim elements as well understood, routine, or conventional—leaving no doubt that the true target of the patent is the abstract idea

or natural law itself. *See* Diss. 10–11. In some other cases, there can be no serious dispute on that point, as *Mayo*, *Bilski*, and *Morse* (which concerned the use of electromagnetism for printing characters at a distance) help to demonstrate. *Mayo*, 132 S. Ct. at 1297–98; *Bilski*, 130 S. Ct. at 3231; *O’Reilly v. Morse*, 56 U.S.62, 112 (1854). Focusing on inventiveness also alleviates the need to make unpredictable, *ad hoc* judgments under prior case law that turned on whether a claim step was “token” and should thus be disregarded for purposes of Section 101. *Cf. In re Bilski*, 545 F.3d 943, 956 (Fed. Cir. 2008) (en banc), *aff’d*, 130 S. Ct. 3218.

The inventive concept factor of the *Mayo* analysis is essential to avoid a divide-and-conquer strategy. Otherwise, a patent claim (such as in *Mayo*) might survive Section 101 on the ground that it recites routine and conventional patentable subject matter in addition to an abstract idea, but then also survive the novelty and non-obviousness requirements of Sections 102 and 103 on the ground that the unpatentable subject matter itself is inventive, even though nothing else is. *Cf. Mayo*, 132 S. Ct. at 1304. *Mayo* confirms that such claims do not warrant patent protection because their only contribution to human knowledge is an abstract idea or natural law. *See id.*

Significantly, however, *Mayo*’s explicit instruction to identify an inventive concept in the course of the Section 101 analysis does not necessarily inject a full-

blown novelty or non-obviousness analysis into Section 101. The partial “overlap” (*Mayo*, 132 S. Ct. at 1304) between the different requirements does not conflate them; it just ensures that each requirement properly performs its own function. As noted above, Section 101 considers inventiveness to the extent necessary to ensure that artful drafting does not defeat the substantive requirement of Section 101. In contrast, the novelty and non-obviousness requirements under Sections 102 and 103 focus directly on inventiveness, and turn on legal and factual intricacies that may require extensive fact development beyond the analysis contemplated by *Mayo*. See, e.g., *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007).

In addition to expressly disagreeing with *Mayo*’s consideration of inventiveness, the majority erred by relying on its conclusion that the asserted claims do not “preempt” all uses of financial intermediation. Op. 27. Preemption of all uses of an idea or natural law is a sufficient but not necessary condition for holding a patent invalid under Section 101. See *Flook*, 437 U.S. at 589–90.

The majority correctly observed that, in *Benson*, the Supreme Court held that an asserted claim was ineligible for patenting because it covered, and thus preempted, all uses of a mathematical algorithm. Op. 15 (citing *Benson*, 409 U.S. 64). But this Court and the Supreme Court have invalidated numerous patents that did not completely preempt all uses of an idea or natural law. In *Flook*, the Court expressly acknowledged that the claims it held to be unpatentable did not preempt

all uses of the relevant mathematical formula. 437 U.S. at 589–90. And in *Bilski* and *Mayo*, the Court invalidated not only the broadest and most preemptive of the asserted claims but also much narrower dependent claims containing additional limitations. See *Mayo*, 132 S. Ct. at 1297–98, 1302; *Bilski*, 130 S. Ct. at 3231. As the Court explained, “the underlying functional concern . . . is a *relative* one: how much future innovation is foreclosed relative to the contribution of the inventor.” *Mayo*, 132 U.S. at 1303.

The majority further erred by relying on details of computer implementation as supporting patentability, even though not one of the asserted claims recites or is limited by those details. See Op. 26–27; Diss. 6–8. The significant limitations necessary to avoid abstractness and establish a patentable application must be included *in the claims* to confer patent-eligibility. Treating the patented invention as something other than the scope of each asserted claim for this purpose fails to address the Supreme Court’s concerns with (1) limiting claim scope and (2) precluding overbroad claims that foreclose too much future invention relative to their contribution. See, e.g., *Mayo*, 132 S. Ct. at 1300–02.

B. Computer Implementation Makes an Otherwise Ineligible Claim Eligible for Patenting Only if the Claim Discloses and Limits Itself to a Specific Inventive Application.

In addition to asking what test it should apply, this Court asked, “when, if ever, does the presence of a computer in a claim lend patent eligibility to an

otherwise patent-ineligible idea?” R’hrng Order at 2. *Mayo* and its predecessors again supply the answer by asking whether the claimed computer implementation (or any other aspect of the claim) adds an inventive and significantly limiting aspect to the claim. *See* 132 S. Ct. at 1294; *see also Ass’n for Molecular Pathology*, 689 F.3d at 1354–55 (Bryson, J., concurring in part and dissenting in part). In short, bare-bones claims are not patentable, whereas claims that specifically recite an inventive way of implementing an abstract idea (with or without a computer) are patent-eligible.

Because computer elements are no different from other elements, adding the words “in a computer system” or “over the Internet” does not, without more, salvage an otherwise unpatentable claim. Claims limited to a *particular* computer implementation of an abstract idea might be patentable subject matter, but claims that simply recite an abstract idea in a specific technological environment are not. Absent additional, significant limitations, the idea remains abstract within that environment. *See Mayo*, at 1297; *Bilski*, 130 S. Ct. at 3231; *Flook*, 437 U.S. at 586; *Benson*, 409 U.S. at 64–65.

Indeed, the invalid claim in *Benson* was limited to a computerized environment, and the invalid claims in *Flook* likewise covered an algorithm. *Benson*, 409 U.S. at 65; *Flook*, 437 U.S. at 489–90. In *Bancorp Services, L.L.C. v. Sun Life Assurance Co. of Canada (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012),

this Court likewise held that patent claims that required a computer were ineligible for patenting.

But other panels of this Court have erred by departing from such precedents. Despite acknowledging that computer implementation alone is not sufficient, those panels have gone on to rely heavily on that erroneous consideration in upholding patents. In this case, for example, the majority stated that “it is difficult to conclude that the computer limitations here do not play a significant part in the performance of the invention.” Op. 26. Shortly before *Mayo*, another panel of this Court held that a computer-implemented method was patent-eligible in part because performance of the steps would “require intricate and complex computer programming.” *Ultramercial*, 657 F.3d at 1328.

Those analyses miss the point. In *any* computer-implemented method, a computer is significant in the sense that it is necessary, and the required programming will likely be “complex” at least to some extent. But that does not mean that all computer-implemented methods, however claimed, are eligible for patenting, as explained above. Focusing only on the need for a computer or programming could have the practical effect of exempting all or nearly all computer-related patents from the prohibition on claiming abstract ideas. The ubiquity of computers in modern life and commerce makes it especially important not to treat computer implementation, without more, as an end-run around the

general principles discussed above.

Indeed, the need for computer programming actually underscores the infirmity of claims that, like this one, entail computer implementation but do not claim a specific means of doing so. To the extent that the need for programming implicates novel or unconventional programming methods, the patent does not claim or disclose any such methods. *See, e.g., Ultramercial*, 657 F.3d at 1329 (acknowledging that patent fails to “specify a particular mechanism” for implementing its steps). On the other hand, to the extent that the programming requires only the ordinary knowledge of computer programmers, the programming steps add nothing inventive. Instead, they call only for well-understood, routine, conventional activity previously engaged in by persons of skill in the field—precisely what *Mayo* held to be insufficient to confer subject-matter eligibility. *See Mayo*, 132 S. Ct. at 1300, 1302.

II. THE PROHIBITION ON PATENTING ABSTRACT IDEAS IS NOT LIMITED TO METHOD CLAIMS.

This Court requested briefing on a related question: “In assessing patent eligibility under 35 U.S.C. § 101 of a computer-implemented invention, should it matter whether the invention is claimed as a method, system, or storage medium; and should such claims at times be considered equivalent for § 101 purposes?” R’hrng Order at 2. As the majority and dissent both recognized, the restrictions on patentable subject matter apply to all patent claims, not only method claims. Op.

21–22; Diss. 9.

Section 101 draws no distinction between its treatment of methods and products. *See* 35 U.S.C. § 101. Moreover, Section 101’s limitations are substantive, not formalistic, and thus cannot be evaded by the drafter’s art. *See, e.g., Mayo*, 132 S. Ct. at 1294; *Diehr*, 450 U.S. at 192; *Flook*, 437 U.S. at 590. As a result, its prohibition on patenting abstract ideas is not defeated by describing an invention as a product instead of a process. Indeed, “providing all system claims with immunity from the subject-matter inquiry would eviscerate the abstract idea test altogether” because methods can generally be described as systems capable of performing the methods. Diss. 8–9. Thus, “[w]hile the [asserted] method, system, and media claims fall within different statutory categories, the form of the claim in this case does not change the patent eligibility analysis under § 101.” Op. 21.

In the context of computer-implemented inventions, this issue arises primarily with respect to claims covering storage media or systems. Of course, a novel storage medium or a novel method of saving a program to a storage medium might be patentable. But the routine and conventional act of embedding software in storage media adds no inventive concept to an otherwise unpatentable abstract idea. Nor does it impose any meaningful limitation on the claim because software has to be saved to a storage medium to be used for its intended purpose. Any other conclusion would sanction extremely broad claims constituting an obvious end-run

around the requirements for patentability. Thus, saving unpatentable subject matter to a conventional storage medium does not, without more, turn it into patentable subject matter. This Court's precedents upholding such claims cannot survive *Mayo*.

System claims can also fail *Mayo*'s test. For instance, the system claim in this case recites only a conventional "data storage unit" coupled to a "computer . . . configured to" perform the steps of the method claims. Op. 5. That broad, generic, and conventional description of computer equipment capable of performing a method adds nothing meaningful to the method itself. Instead, it is just another way of describing the method. Thus, it cannot support patentable subject matter.

III. THE ASSERTED CLAIMS ARE UNPATENTABLE SUBJECT MATTER.

As the dissent explained, this case nicely illustrates the proper application of the *Mayo* test to computer-implemented claims. The claims simply recite the abstract idea of financial intermediation by dividing the idea into its constituent parts:

Stripped of jargon, representative method claim 33 simply breaks down the idea of a financial intermediary into four steps: (a) creating a debit and credit account for each party, (b) checking the account balances in the morning, (c) adjusting the account balances through the day, and (d) paying the parties at the end of the day if both parties have performed.

Diss. 5.

These claims pass *none* of the *Mayo* guideposts. Under the first two *Mayo* factors, the claims must go beyond the abstract idea of financial intermediation by reciting steps or elements that are inventive and significantly limit the claims' scope. *See* pp. 8–9, *supra*. Here, however, the computer-implementation steps contain no limitations related to *how* software or hardware accomplishes this financial-intermediation function. Nor do they recite any new or inventive programming techniques or computer hardware. The asserted system claim, for example, recites only a conventional “data storage unit” coupled to a “computer . . . configured to” perform the steps of the method claims. Op. 5.

As such, the asserted claims add nothing to the abstract idea of financial intermediation, apart from a requirement that it be implemented on a computer. While there are undoubtedly many ways to implement the idea of financial intermediation with computers, the claims cover many if not all of them, known or unknown, disclosed or undisclosed in the patent's specification. *See* Diss. 5–6.

Thus, there is no principled reason to find that the financial transaction steps of the claims asserted here rise to the level of a practical application while the financial transaction steps of the *Bilski* claims do not. *See* CLS Bank En Banc Br. 35–44. The primary difference between the two cases is that the claims here place the abstract idea of financial intermediation within the environment of a computer.

Under the third *Mayo* factor, however, that limitation to a computerized environment is insufficient. *See* pp. 15–18, *supra*.

The final *Mayo* factor, the machine-or-transformation test, confirms that the claims do not “add *enough* to their statements of the [abstract idea of financial intermediation] to qualify as patent-eligible” applications of that idea. *Mayo*, 132 S. Ct. at 1297. Under the machine-or-transformation test, a patent claim must recite a particular machine (as opposed to a general-purpose computer). *Dealertrack*, 674 F.3d at 1333; *CyberSource*, 654 F.3d at 1375. Moreover, “token” or “insignificant” claim steps cannot be used to satisfy the test. *Diehr*, 450 U.S. at 191–92 & n.14. The asserted claims and others like them fail those standards for the same reasons they fail the other *Mayo* guideposts: they do not specify any particular computer implementation (any generic computer could suffice) and their additional steps are “token” or “insignificant” for this purpose because they add nothing inventive to the abstract idea. *See Bancorp*, 687 F.3d at 1278; *SiRF Tech., Inc. v. ITC*, 601 F.3d 1319, 1333 (Fed. Cir. 2010).

This analysis of the four *Mayo* guideposts is not a matter of “ignoring claim limitations” or rewriting claims, as the majority suggested. Op. 23 & n.4. It is a simple matter of describing the claim scope and considering whether the claim, read as a whole, contains any significant and inventive limitations apart from the abstract idea (and apart from limiting the claims to a computerized environment).

The *Mayo* Court performed the exact same analysis as the dissent in this case by describing the claims' coverage and then determining that they were not sufficiently limited or inventive to be patent-eligible. 132 S. Ct. at 1297–98; Diss. 5–6.

Nor does it matter that the patent applicant broke the basic idea into a series of steps, in the form of a method claim. Section 101 looks to substance, not form, and every method the Supreme Court has invalidated under this provision was drafted as a series of steps. *E.g.*, *Mayo*, 132 S. Ct. at 1296; *Bilski*, 130 S. Ct. at 3223–24; *Flook*, 437 U.S. at 585–86.

IV. ENFORCEMENT OF SECTION 101 AS EARLY IN A CASE AS POSSIBLE IS CRITICALLY IMPORTANT TO THE HIGH-TECH INDUSTRY.

The prohibition on patenting abstract ideas is very important in the high-tech sector. Timely enforcement of the prohibition is also vital to ensure that Section 101 achieves its purpose.

A. Abstract Patents Are a Plague in the High-Tech Sector.

A disturbing number of patents amount to no more than describing an abstract idea at a high level of generality and saying to perform it on a computer or over the Internet—without providing any of the specifics required to transform abstract ideas into patentable inventions. Such patents leave to others the truly innovative work of developing applications of the idea. It is easy to think of

abstract ideas about what a computer or website should do, but the difficult, valuable, and often groundbreaking part of online innovation comes next: designing, analyzing, building, and deploying the interface, software, and hardware to implement that idea in a way that is useful in daily life. Simply put, ideas are much easier to come by than working implementations.

The mere idea of financial intermediation with computers, or searching and finding information on an Internet website, is abstract. “At their limit,” such abstract patents “claim everything and contribute nothing.” Lemley et al., *supra*, at 1338. “By requiring that patent claims be limited to a specific set of practical applications of an idea, the abstract ideas doctrine both makes the scope of the resulting patent clearer and leaves room for subsequent inventors to improve upon—and patent new applications of—the same basic principle.” *Id.* at 1317. That space for innovation is critical to *amici*, their industries, and consumers.

When threatened by lawsuits on this and similar patents, however, innovators face a choice of gambling on litigation or paying license fees for technology they already paid once to develop independently. Either path imposes significant costs that effectively tax innovation and drive up prices for consumers. *See, e.g.*, Dep’t of Commerce, Patent Reform: Unleashing Innovation, Promoting Economic Growth & Producing High-Paying Jobs 5–6 (Apr. 13, 2010), http://www.commerce.gov/sites/default/files/documents/migrated/Patent_Reform-

paper.pdf (“DOC Report”); Fed. Trade Comm’n, Report, *Evolving IP Marketplace* 8 (Mar. 2011), <http://www.ftc.gov/os/2011/03/110307patentreport.pdf>.

This is a serious problem, as low-quality patents in computer-related industries have become a scourge that raises costs and places a drag on innovation. One study found that patents in these industries have produced net litigation costs far in excess of the net profits derived from the patents themselves. James Bessen & Michael J. Meurer, *Patent Failure* 15–16, 144 (2008); *see also* DOC Report at 5. Internet software patents are litigated eight times as often as other patents. John R. Allison et al., *Patent Litigation and the Internet*, 2012 *Stan. Tech. L. Rev.* 3, 8, <http://stlr.stanford.edu/pdf/allison-patent-litigation.pdf>.

Weak policing of Section 101 is a significant cause of this problem. “Why are software patents more frequently litigated? In a word, abstraction.” Bessen & Merurer, *supra*, at 22.

For these reasons, proper enforcement of Section 101 is especially important for high-tech industries. “[T]he underlying functional concern is a *relative* one: how much future innovation is foreclosed relative to the contribution of the inventor.” *Mayo*, 132 S. Ct. at 1303. By claiming a familiar idea (such as financial intermediation) when done on a computer, without more, the asserted claims and others like them add little, if anything, to human knowledge while broadly foreclosing future development by others.

B. Section 101 Issues Should Be Resolved as Early as Possible.

This Court should ensure that Section 101 is enforced as early as possible in litigation. In the vast majority of cases, claim construction and discovery are not needed to determine subject-matter eligibility. Even in a case with as complicated a factual background as *Association for Molecular Pathology v. PTO*, for example, Section 101 has been exhaustively litigated without any discovery having been conducted. *See Ass'n for Molecular Pathology*, 689 F.3d at 1324.

This Court has acknowledged that courts generally have discretion to address Section 101 early in a case, before considering other issues. Op. 13; *see Ultramercial*, 657 F.3d at 1325–26. At times, this Court has strongly encouraged district courts to do just that. *In re Comiskey*, 554 F.3d 967, 973 (Fed. Cir. 2009).

This Court should now clarify that, in keeping with Section 101's role as a "screening" device (*Mayo*, 132 S. Ct. at 1303), courts should enforce that requirement at the outset of most cases. Much of the harm from low-quality computer-related patents takes the form of (1) litigation expenses and (2) cost-of-litigation settlements, in which some companies pay substantial sums to settle meritless cases because their litigation expenses would exceed the plaintiff's settlement demand. *See, e.g.*, Brian J. Love, *Why Patentable Subject Matter Matters for Software*, 81 Geo. Wash. L. Rev. 1, 9–10 (2012), http://www.gwlr.org/wp-content/uploads/2012/09/Love_Arguendo_81_1.pdf. Prompt resolution of

Section 101 disputes would enable defendants to avoid unnecessary litigation and settlement costs in cases like this.

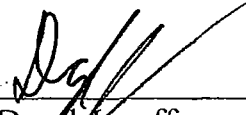
In contrast, deferring consideration of the issue would unnecessarily subject defendants to expensive discovery, claim construction, and other litigation costs concerning, among other things, the other requirements for patentability found in 35 U.S.C. §§ 102, 103, and 112. *Cf. Ass'n for Molecular Pathology*, 653 F.3d at 1379–80 (Bryson, J., concurring in part and dissenting in part). That increases the nuisance value of settlement and deters product development, while burdening the district courts unnecessarily.

Cabining Section 101—as the majority did here—is not the answer to the problems posed by vague and overbroad patents, especially in the high-tech sector.

CONCLUSION

This Court should hold that the asserted claims are unpatentable subject matter under the Supreme Court's decision in *Mayo*.

Respectfully submitted on this 7th day of December 2012.



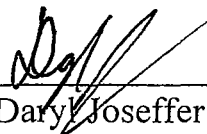
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CERTIFICATE OF COMPLIANCE

Pursuant to Federal Rule of Appellate Procedure 32(a)(7)(C), I certify that the foregoing brief, exclusive of the exempted portions as provided in Fed. R. App. P. 32(a)(7)(B)(iii) and Fed. Cir. R. 32(b), contains 6,271 words and therefore complies with the type-volume limitations of Fed. R. App. P. 28.1(e)(2)(A)(i).



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December 7, 2012

PROOF OF SERVICE

This is to certify that I have this day served the foregoing “Brief of *Amicus Curiae* Google Inc. in Support of Petitioners” upon counsel for the parties by depositing two copies of the brief with UPS for delivery as follows:

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