No. 13-298

In the
Supreme Court of the United States

ALICE CORPORATION PTY. LTD.,
Petitioner,

v.

CLS BANK INTERNATIONAL AND CLS SERVICES LTD.,
Respondents.

On Writ of Certiorari to the United States Court of Appeals for the Federal Circuit

BRIEF OF THE CLEARING HOUSE ASSOCIATION L.L.C. AND FINANCIAL SERVICES ROUNDTABLE AS AMICI CURIAE IN SUPPORT OF RESPONDENTS

SUSAN M. DAVIES
WILLIAM H. BURGESS*
Kirkland & Ellis LLP
655 Fifteenth Street, N.W.
Washington, D.C. 20005
(202) 879-5000
wburgess@kirkland.com

**Counsel of Record*

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INTEREST OF AMICI CURIAE*

The Clearing House Association L.L.C. is the oldest banking association in the United States, and is owned by the world's largest commercial banks, which collectively hold more than half of all U.S. deposits. The Clearing House clears more than $2 trillion per day across its networks. The Financial Services Roundtable represents 100 integrated financial services companies providing banking, insurance, and investment products and services to the American consumer.

Amici and their members share grave concerns about the many computer-aided business method patents granted following the Federal Circuit's decision in *State Street Bank & Trust Co. v. Signature Financial Group*, 149 F.3d 1368 (Fed. Cir. 1998). Those patents are especially prevalent and problematic in the banking industry, where longstanding practices are increasingly being claimed as patent-eligible business methods, based solely on the integration of a computer.

As the numerous disparate opinions in the en banc proceedings below illustrate, different judges on the Federal Circuit have vastly different views as to which which computer-aided processes are patent-eligible under 35 U.S.C. § 101 and which are not, and

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* Petitioner and Respondents have consented to the filing of this brief in separate letters filed with the Clerk on December 11, 2013. No counsel for a party authored this brief in whole or in part. No one other than amici curiae, their members, or their counsel made any monetary contribution intended to fund the preparation or submission of this brief.

what this Court's precedents require in terms of the analysis under that statute.

Amici's members hold patents of their own and are accused of infringing patents. Uncertainty over whether computer-aided processes are patent eligible prevents amici's members from accurately gauging the value or enforceability of their intellectual property, and also leaves them unsure whether they can offer certain products or services without infringing others' patents.

This double-sided uncertainty is detrimental to the basic functioning of the banking industry. It hinders competition and innovation by discouraging industry members from developing new products and services, provides poor notice of the extent of patent holders' intellectual property rights, and prevents amici's members from accurately determining their assets and liabilities. These factors lead to costly and wasteful litigation as parties resort to the federal courts to determine which patents do and do not claim patent-eligible subject matter. The prevailing uncertainty regarding patent eligibility also encourages speculative litigation, as plaintiffs exploit increased uncertainty over trial outcomes to obtain larger settlements.

For these reasons, amici ask the Court to take the opportunity this case presents to reaffirm the significance of patent eligibility under 35 U.S.C. § 101 as a threshold test of patent validity, to clarify when the integration of a computer into an otherwise patent-ineligible process renders that process patent-eligible, and to affirm the judgment below.

INTRODUCTION AND SUMMARY OF THE ARGUMENT

As CLS's brief well explains, the unpatentability of Alice's claims under 35 U.S.C. § 101 should follow as a straightforward matter from *Bilski v. Kappos*, 130 S. Ct. 3218 (2010) and *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289 (2012). The numerous Federal Circuit opinions in this case show that the judges of the Federal Circuit continue to disagree among themselves about fundamental aspects of 35 U.S.C. § 101's test for patent eligibility, particularly as applied to computer-implemented patent claims. In resolving this case, the Court should address two areas of disagreement at the core of the Federal Circuit's treatment of the merits of this case.

First, the Court should reaffirm that Section 101 is a substantive, threshold test of patentability that should be assessed early in litigation. The Court should thus reject the contrary notion, espoused in an aberrant line of Federal Circuit cases, that Section 101 is a "coarse eligibility" filter test that should be avoided where possible and should be considered satisfied unless it is manifestly evident that the test is not satisfied.

Second, the Court should provide further guidance as to when the addition of a computer makes an otherwise patent-ineligible process eligible under Section 101. The Court should hold—consistent with this Court's and the Federal Circuit's specific precedent addressing computer-implemented patent claims—that the addition of a computer to an otherwise patent-ineligible mental process does not

transform that process into a patent-eligible invention unless the integration of the recited computer is essential to performing the claimed process, and not merely used to make the process easier, cheaper, or more efficient to perform.

The widespread adoption and integration of computers has permitted a level of automation, convenience, and efficiency that would have been unimaginable only a few decades ago. But the extensive use of computers to perform or assist in tasks that were previously performed mentally or manually has raised a difficult issue for patent law. Section 101 of the Patent Act provides: "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." 35 U.S.C. § 101. For more than 150 years, this Court has held that, although this standard for patent eligibility is broad, abstract ideas, mental processes, laws of nature, and physical phenomena are not patentable. *Bilski*, 130 S. Ct. at 3225 (citing *Le Roy v. Tatham*, 55 U.S. (14 How.) 156, 174-75 (1853)); *see also Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980); *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972). It is not always clear, however, when the addition of a computer makes an otherwise patent-ineligible process eligible under Section 101.

At the most basic level, computers are only automated machines that execute a predetermined series of mathematical or logical operations. *See Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of*

Canada, 687 F.3d 1266, 1277–78 (Fed. Cir. 2012), *cert pet. filed*, No. 13-584 (Nov. 8, 2013). Thus, a human being with unlimited time could execute exactly the same operations in exactly the same manner as the computer and achieve exactly the same result. This is obvious for simple tasks; a person can sit down with paper and pencil and perform exactly the same arithmetic processes as can be performed on a calculator. But the same logic applies to more complicated tasks: a person with unlimited time and capacity and perfect precision could perform even the most complicated processes using only their own mind.

Mental processes are fundamentally not patent eligible under Section 101 because "computational methods which can be performed *entirely* in the human mind are the types of methods that embody the 'basic tools of scientific and technological work' that are free to all men and reserved exclusively to none." *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) (quoting *Benson*, 409 U.S. at 67) (original emphasis). "[M]onopolization of those tools through the grant of a patent might tend to impede innovation more than it would tend to promote it." *Mayo*, 132 S. Ct. at 1293. Thus, Section 101 performs a vital threshold function, especially in the context of computer-aided business method patents, by screening out patent claims that attempt to monopolize patent-ineligible mental processes. *See, e.g.*, *Parker v. Flook*, 437 U.S. 584, 593 (1978). Here, Alice has attempted to monopolize the patent-ineligible basic concept of escrow, and its claims are thus ineligible for

patenting under Section 101, as that statute is properly applied.

ARGUMENT

I. Section 101 Establishes an Essential Threshold Requirement for Patent Eligibility.

To restore some measure of clarity to the doctrine of patent-eligibility, the Court should reaffirm that 35 U.S.C. § 101 is a substantive threshold test of patentability, and as such should be enforced rigorously and assessed early in litigation. The inquiry is not—as an erroneous strain of Federal Circuit caselaw holds—a nonsubstantive "coarse eligibility filter" that should be read narrowly and deemed satisfied unless it is "manifestly evident" that the test is not satisfied.[2] The "coarse eligibility filter" concept was the basis of the panel opinion below. *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 685 F.3d 1341, 1352 (Fed. Cir. 2012). That line of cases disregards two consistent features of this Court's precedents addressing Section 101.

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[2] *See Research Corp. Techs., Inc. v. Microsoft Corp.*, 627 F.3d 859, 869 (Fed. Cir. 2010); *Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057, 1066-67 (Fed. Cir. 2011); *Ultramercial, LLC v. Hulu, LLC*, 657 F.3d 1323, 1326 (Fed. Cir. 2011), *vacated and remanded sub nom. WildTangent Inc. v. Ultramercial LLC*, 132 S. Ct. 2431 (2012); *MySpace, Inc. v. GraphOn Corp.*, 672 F.3d 1250, 1261 (Fed. Cir. 2012); *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1331 (Fed. Cir. 2012); *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 685 F.3d 1341, 1352 (Fed. Cir. 2012); *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1326 (Fed. Cir. 2013) (en banc) (Rader, C.J., "additional views"); *Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335 (Fed. Cir. 2013), *cert pet. filed*, No. 13-255 (Aug. 23, 2013).

First, Section 101 is a "threshold test" of patentability that should generally be considered *before* other issues, such as claim construction or obviousness. *Flook* explained that "the rule that the discovery of a law of nature cannot be patented rests, not on the notion that natural phenomena are not processes, but rather on the more fundamental understanding that they are not the kind of 'discoveries' that the statute was enacted to protect." 437 U.S. at 593. Thus, *Flook* held that "[t]he *obligation* to determine" whether a discovery is patentable under § 101 "*must precede* the determination of whether that discovery is, in fact, new or obvious." *Id.* (emphasis added). Other decisions are to the same effect. *See, e.g.*, *Diamond v. Diehr*, 450 U.S. 175, 188-89 (1981) (considering whether claims were "barred at the threshold by § 101"); *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 483 (1974) ("no patent is available for a discovery, however useful, novel, and nonobvious, unless it falls within one of the express categories of patentable subject matter.").

That is not to say that Section 101 is jurisdictional, or that district courts lack discretion to consider other issues first in some instances. Usually, however, it is in the court's and the parties' interest to address patentability under Section 101 first—as a "threshold test," at the outset of the invalidity case, before considering other invalidity issues such as anticipation under Section 102 or obviousness under Section 103. Anticipation and obviousness requires analysis of prior art and the meaning of that art to the relevant scientific community. Those analyses typically involve

expensive competing technical experts who must each review documents, prepare reports, be deposed, and respond to the contentions of the other side's expert. Sections 102 and 103 also typically require formal claim construction, which is another time-consuming and expensive process.

Unlike those other issues, however, the Section 101 inquiry generally does not require formal claim construction or discovery (expert or otherwise). *See, e.g.*, *Bilski*, 130 S. Ct. at 3231 (finding patent application ineligible without formal claim construction); *Cyberfone Sys., LLC v. CNN Interactive Grp.*, No. 2012-1673, 2014 U.S. App. LEXIS 3599, at *7 & n.1 (Fed. Cir. Feb. 26, 2014) (same); *Bancorp*, 687 F.3d at 1273 (claim construction "not an inviolable prerequisite to a validity determination under § 101"); *see also generally Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013) (eligibility of claims for naturally occurring and synthetic DNA determined on the basis of the pleadings, without discovery); *see also CyberSource Corp. v. Retail Decisions, Inc.*, 620 F. Supp. 2d 1068 (N.D. Cal. 2009) (accepting claim constructions proposed by the non-moving party for summary judgment purposes, and granting summary judgment of invalidity under § 101), *aff'd* 654 F.3d 1366 (Fed. Cir. 2011); *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 768 F. Supp. 2d 221 (D.D.C. 2011) (same).

This Court has long acknowledged that "patent litigation is a very costly process," *Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313, 334 (1971). Today, the median cost of defending a patent

suit with $1 to $25 million at stake is more than $2 million, and more than half of that cost is incurred during discovery. Am. Intell. Prop. Law Ass'n, *Report of the Economic Survey 2013* at 34 (July 2013). Where an ineligible patent can be identified and a case resolved before claim construction or discovery, there is no need to delay, and good reason not to. The court efficiently marshals its own resources and spares the parties much of the expense of unnecessary patent litigation and the attendant uncertainty and settlement pressure.

Second, the Court's precedents confirm that Section 101 establishes a substantive test for patentability, and reject the contrary notion that Section 101 must be read narrowly or applied leniently to avoid any overlap with other sections of the Patent Act. *See Flook*, 437 U.S. at 592 (rejecting Flook's argument that the Court "improperly import[ed] into § 101 the considerations of 'inventiveness' which are the proper concerns of §§ 102 and 103."); *Mayo*, 132 S. Ct. at 1303-04 ("[T]he § 101 patent-eligibility inquiry and, say, the § 102 novelty inquiry might sometimes overlap …. to shift the patent-eligibility entirely to these later sections risks … assuming that those sections can do work that they are not equipped to do.").

Bilski—this Court's first Section 101 case since the creation of the Federal Circuit—did not change either of those principles; it reaffirmed both. *Bilski* reaffirmed that "[t]he § 101 patent-eligibility inquiry is only a threshold test," as a "claimed invention must *also* satisfy 'the conditions and requirements of this title,' such as "that the invention be novel, see

§ 102, nonobvious, see § 103, and fully and particularly described, see § 112." 130 S. Ct. at 3225 (emphasis added). Applying the "threshold test" of Section 101, the Court resolved *Bilski* "narrowly on the basis of … *Benson*, *Flook*, and *Diehr*," *id.* at 3229, and held that a patent application claiming a procedure for hedging against the risk of price changes was unpatentable under 35 U.S.C. § 101 because it was an "abstract idea, just like the algorithms at issue in *Benson* and *Flook*." *Id.* at 3231. The unpatentability of "laws of nature, physical phenomena, and abstract ideas," *Bilski* noted, "defined the reach of the statute as a matter of statutory *stare decisis* going back 150 years." *Id.* at 3225.

Further underscoring that Section 101 is a rigorous, substantive test, Justice Breyer, joined by Justice Scalia, criticized the comparatively lenient test that the Federal Circuit had previously applied in *State Street Bank*, where "anything which produces a 'useful, concrete, and tangible result' … is patentable." *Id.* at 3259 (Breyer, J., concurring).

Less than six months after *Bilski*, however, a panel of the Federal Circuit took that decision as an invitation to discard both of the above principles. In *Research Corporation*, the Federal Circuit read *Bilski*'s description of Section 101 as a "threshold test" not as a directive to reach questions of patent eligibility early in litigation, but as a suggestion that Section 101 is not a rigorous, substantive test of patentability. 627 F.3d at 867-69. Instead, the Federal Circuit panel asserted, Section 101 "directs *primary attention*" to other "conditions and

requirements of Title 35." 627 F.3d at 868 (emphasis added). Thus, the court reasoned, Section 101 is merely a "coarse eligibility filter," *id.* at 869, and if a patent is to be invalidated under Section 101 as claiming an "abstract idea," the abstractness "should exhibit itself *so manifestly* as to override the broad statutory categories of eligible subject matter and the statutory context that directs *primary attention on the patentability criteria of the rest of the Patent Act*." *Id.* at 868. In other words, the *Research Corporation* panel announced that Section 101's test for patentability should be deemed satisfied unless it is "manifestly evident" that it is not satisfied, and that the preferable course is to avoid the question altogether.

Research Corporation spawned an aberrant line of Federal Circuit decisions that held—in increasingly strident terms—that Section 101 is a non-substantive, "broadly permissive" "coarse filter" that weeds out only "manifestly" unpatentable claims, and that takes a back seat to other provisions of the Patent Act. *See Classen*, 659 F.3d at 1066 ("[T]he preferable procedure, when the claims are within the general classes of § 101 subject matter and not manifestly abstract, is to apply the [other] *substantive* conditions and requirements of patentability.") (emphasis added); *Ultramercial*, 657 F.3d at 1326 (Section 101 is "broadly permissive," and "makes clear that the categories of patent-eligible subject matter are no more than a 'coarse eligibility filter' … [and] not substitutes for the *substantive* patentability requirements set forth in § 102, § 103, and § 112.") (emphasis added); *MySpace*, 672 F.3d at 1261 ("courts should avoid

reaching for interpretations of broad provisions, such as § 101, when more specific statutes, such as §§ 102, 103, and 112, can decide the case."). *Classen* and *MySpace* predictably drew dissenting opinions criticizing the majority's "coarse filter" approach, and *Ultramercial* was vacated by this Court and remanded for reconsideration in light of *Mayo*. *Classen*, 659 F.3d at 1075-81 (Moore, J., dissenting); *MySpace*, 672 F.3d at 1268-70 (Mayer, J., dissenting) (explaining practical and legal defects in the "coarse eligibility filter" approach); *WildTangent, Inc. v. Ultramercial, LLC*, 132 S. Ct. 2431 (2012) (vacating and remanding *Ultramercial*).

To the extent that *Research Corporation* did not rest on a clear misreading of *Bilski*, *Mayo* should have put the "coarse filter" line of cases definitively to rest two Terms ago. In *Mayo*, the Solicitor General explicitly invoked the "coarse filter" concept to argue that the claim in *Mayo* was patent-eligible. Section 101 should be applied as a "coarse filter," the Solicitor General argued, because other sections of the Patent Act "permit the nuanced, fact-intensive distinctions necessary to separate patentable from unpatentable inventions." Br. of the United States as Amicus Curiae in Support of Neither Party, at 11, *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012) (No. 10-1150), *available at* 2011 WL 4040414. This Court *unanimously* and forcefully rejected that invitation to screen low-quality patents through other statutes, rather than rigorously enforcing Section 101. *Mayo*, 132 S. Ct. at 1303-04. In particular, the Court rejected the idea that Section 101 should be read narrowly, remarking that, although the Section 101 inquiry "might

sometimes overlap" with other provisions, that is not a reason to avoid the Section 101 analysis in favor of the other validity provisions of the Patent Act. *Id.* at 1304. "[T]o shift the patent-eligibility inquiry entirely to these later sections risks creating significantly greater legal uncertainty, while assuming that those sections can do work that they are not equipped to do." *Id.* Further, the Court noted that avoiding Section 101 in deference to other provisions of the Patent Act was "not consistent with prior law," because the relevant precedents of this Court "rest their holdings upon section 101, not later sections." *Id.* at 1303. The Solicitor General's approach, the Court explained, would make the applicable "exception to § 101 patentability a dead letter." *Id.* Instead, the Court applied § 101 rigorously, and unanimously ruled that the claim was unpatentable, as it "present[ed] a case for patentability that is weaker than the (patent-eligible) claim in *Diehr* and no stronger than the (unpatentable) claim in *Flook*." *Id.* at 1299.

Nonetheless, even after *Mayo*, Federal Circuit cases—including both the panel opinion in this case and the *Ultramercial* case this Court remanded for consideration of *Mayo*—continued to apply the discredited *Research Corporation* "coarse filter" conception of Section 101, to screen for only "manifestly" ineligible patents. *See CLS Bank*, 685 F.3d at 1352 ("this court holds that when—after taking all of the claim recitations into consideration—it is not manifestly evident that a claim is directed to a patent ineligible abstract idea, that claim must not be deemed for that reason to be inadequate under § 101") (panel opinion);

Ultramercial, 722 F.3d at 1341, 1354 (reversing district court where majority concluded "the claimed invention is not 'so manifestly abstract as to override the statutory language of section 101.' *Research Corp.,* 627 F.3d at 869."); *cf. CLS Bank*, 717 F.3d at 1326 (Newman, J., concurring, on rehearing en banc) (citing *Research Corporation* for "coarse filter" reasoning).

To the credit of other judges, these post-*Mayo* decisions were not unanimous. *CLS Bank* and *Ultramercial* drew separate opinions criticizing the majority's disregard for *Mayo*. *CLS Bank*, 685 F.3d at 1357 (Prost, J., dissenting) ("[T[he majority's 'manifestly evident' standard … has resurrected the very approach to § 101 that the Solicitor General advocated—and the Supreme Court laid to rest—in [*Mayo*]."); *Ultramercial*, 722 F.3d at 1354 (Lourie, J., concurring) ("I write separately because I believe that we should concisely and faithfully follow the Supreme Court's most recent guidance regarding patent eligibility in *Mayo*.").

Nonetheless, despite this Court's unequivocal ruling in *Mayo*, and despite decades of consistent precedent consistently applying Section 101 as a rigorous substantive test of patentability, some Federal Circuit panels continue to treat Section 101 as if they are writing on a blank slate and free to decide cases on the basis of their own views. *CLS Bank*, 685 F.3d at 1357 (Prost, J., dissenting) ("The majority resists the Supreme Court's unanimous directive to apply the patentable subject matter test with more vigor."). Whatever difficult questions this case may present, it should be a straightforward

matter to reaffirm the unanimous decision in *Mayo* that 35 U.S.C. § 101 is an *substantive threshold* test of patentability that should be rigorously enforced and assessed early in litigation, and to reject the line of Federal Circuit cases that continue to hold otherwise. That step alone would provide a measure of clarity and reduce the unpredictability and panel-dependency of the Federal Circuit's Section 101 decisions. *See CLS Bank*, 717 F.3d at 1321 (Newman, J., concurring) (noting panel-dependency).

II. The Addition of a Computer to An Otherwise Patent-Ineligible Process Does Not Render That Process Patentable Unless the Computer is Essential to the Process.

"Mental processes" and "abstract intellectual concepts" have never been patent eligible because they are "basic tools of scientific and technological work." *Benson*, 409 U.S. at 67. "[M]onopolization of those tools through the grant of a patent might tend to impede innovation more than it would tend to promote it." *Mayo*, 132 S. Ct. at 1293. Because all inventions necessarily apply basic scientific tools and concepts at some level, however, the Court has distinguished between eligible and ineligible patents on the basis of whether the patent embodies an "inventive concept" *apart from and in addition to* the underlying abstraction, or whether the patent is essentially a monopoly on the underlying abstraction itself. *Mayo*, 132 S. Ct. at 1294; *Flook*, 437 U.S. at 594. The patent "must do more than simply state the law of nature while adding the words 'apply it.'" *Mayo*, 132 S. Ct. at 1294 (citing *Benson*). While Alice

argues that *anything* more than "apply it" will suffice, Br. for Petitioner § I.C, this Court has consistently held otherwise.

Mayo explained the "inventive concept" necessary to distinguish a patentable invention from an unpatentable one in the following terms:

> [T]he Court's precedents … warn us against interpreting patent statutes in ways that make patent eligibility "depend simply on the draftsman's art" without reference to the "principles underlying the prohibition against patents for [natural laws]." They warn us against upholding patents that claim processes that too broadly preempt the use of a natural law. And they insist that a process that focuses upon the use of a natural law *also* contain 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 natural law itself.

132 S. Ct. at 1294 (emphasis added, citations omitted); *see also Flook*, 437 U.S. at 594.

The "inventive concept" requirement is substantive, and cannot be met by clever drafting where the patentee simply adds generic machine or field-of-use limitations, "insignificant post-solution activity," or "purely conventional or obvious pre-solution activity" as window dressing to an otherwise

unpatentable mathematical algorithm. *Mayo*, 132 S. Ct. at 1297-98; *see also id.* at 1297 (patent must "provide practical assurance that the process is more than a drafting effort designed to monopolize the law of nature itself"); *see also Bilski*, 130 S. Ct. at 3231; *Diehr*, 450 U.S. at 191-92; *Flook*, 437 U.S. at 589-91; *Benson*, 409 U.S. at 71-72.

While the distinction between an "inventive concept" and insignificant additions may be elusive in some cases, two useful, complementary, insights emerge from the Federal Circuit's specific experience applying this Court's Section 101 cases, such as *Benson*, *Flook*, *Diehr*, and *Bilski*, to computer-implemented inventions: *first*, the use of a computer merely to make a patent-ineligible process faster or more efficient does not make the process patent-eligible under Section 101; and *second*, a computer must be *essential* to an otherwise patent-ineligible process to make that process patent-eligible. Recognizing and applying those insights here would bring a measure of needed clarity to the doctrine of patent-eligibility, and would definitively resolve this case.

A. Integration of a computer fails to provide an "inventive concept" if a human could perform the same process without a computer.

Although the use of a computer makes tasks faster or easier, the Federal Circuit has recognized with some consistency that the use of a computer to make an otherwise patent-ineligible process easier or more efficient does not transform that process into a patent-eligible invention. *See Bancorp*, 687 F.3d at

1277-81; *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1332-33 (Fed. Cir. 2012); *Fort Properties, Inc. v. Am. Master Lease LLC*, 671 F.3d 1317, 1323 (Fed. Cir. 2012); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1376-77 (Fed. Cir. 2011); *SiRF Tech., Inc. v. Int'l Trade Comm'n*, 601 F.3d 1319, 1333 (Fed. Cir. 2010); *cf. Cyberfone*, 2014 U.S. App. LEXIS 3599, at *6, *8-12 (discussing *Bancorp*, *Dealertrack*, *Fort Properties*, *CyberSource*, and *SiRF*).

In *Bancorp,* for example, the Federal Circuit considered a patent covering a computerized means for "administering and tracking the values of life insurance policies in separate accounts." 687 F.3d at 1269. Although the process would be "inefficient" without a computer, *id.* at 1275, the Court recognized that the claimed process of tracking, reconciling, and administering a life insurance policy with a stable value component could be done manually. *Id.* at 1277-78. As the court noted, the computer was not "integral to the claimed invention," but rather "employed only for its most basic function, the performance of repetitive calculations." *Id.* at 1278.

Similarly, in *Fort Properties,* the Federal Circuit rejected a patent claim covering a computer-aided method for enabling tax-free property exchanges. Noting that the computer did not play a significant part in permitting the claimed process to be performed, *id.* 671 F.3d at 1322-23, the Court concluded that the claimed investment tool did not require the use of a computer, *id.* at 1322. Thus, the claimed process was unpatentable under Section 101 because the process was not materially different

than it would be if performed by a human being without a computer.

Likewise, in *Dealertrack*, 674 F.3d at 1332-33, the Federal Circuit rejected a patent claim covering a computer-aided method of applying for credit. Despite a "computer aided" limitation, the Court concluded that the claims were directed to an abstract idea because the claims were silent as to how or to what extent the computer aided the process. *Id.* at 1333 ("Simply adding a 'computer aided' limitation to a claim covering an abstract concept, without more, is insufficient to render a claim patent eligible."). *Dealertrack* was consistent with the Federal Circuit's earlier decision in *CyberSource*, which concluded that a claimed method of verifying internet credit card transactions was not patent-eligible under Section 101. 654 F.3d at 1376–77. *CyberSource* reasoned that because all of the steps in the claimed process could be performed by a person using pen and paper, *id.* at 1372, the claims impermissibly attempted to capture a patent-ineligible mental process, *id.* at 1376–77.

On the other side of the line, and applying the same principle, the Federal Circuit ruled in *SiRF Technology* that the patents at issue *did* recite patentable subject matter. 601 F.3d at 1331-33. Consistent with the above authorities, *SiRF* recognized that "for the addition of a machine to impose a meaningful limit on the scope of a claim, it must play a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be achieved more quickly."

Id. at 1333. The *SiRF* panel found that the specific hardware recited—a "*particular* GPS receiver that receives the satellite signals"—imposed meaningful limits where that *specific* hardware was necessary to generate the claimed "pseudoranges" and where there was "no evidence … that the calculations here can be performed entirely in the human mind." *Id.* at 1332-33.

Bancorp, Fort Properties, *CyberSource*, *and SiRF* demonstrate a key principle that follows from this Court's cases distinguishing "inventive concepts" from "post-solution activity": a patent-ineligible abstract idea or mental process cannot be transformed into a patent-eligible process merely by implementing the idea or executing the process with the assistance of a computer. Even though the process may become easier, cheaper, or more efficient through the integration of a computer, these improvements are insufficient to transform patent-ineligible subject matter into a patent-eligible process under Section 101. Such use of a computer is akin to the addition of "well-understood, routine, conventional activity already engaged in by the [relevant] community" that this Court recognized in *Mayo* as "add[ing] nothing significant beyond the sum of their parts individually." 132 S. Ct. at 1298.

B. Integration of a computer can provide an "inventive concept" if the use of the computer is essential to the execution of the process.

The concern that this Court has consistently expressed in its Section 101 cases—patents preempting basic, fundamental concepts of human

activity—is especially acute with software patents. That is because software is purely functional.

At a basic level, computer processors operate by executing binary numerical "machine language" instructions compiled from instructions written in a higher-level programming language such as BASIC, Pascal, COBOL, or C++. *See* W. Ford & W. Topp, THE MC68000: ASSEMBLY LANGUAGE AND SYSTEMS PROGRAMMING 2-5 (1987). The higher-level programming language is merely a convenient overlay that permits users to write programs with English-like statements and mathematical symbols. *Id.* at 2. The high-level programming language is independent of any specific computer, and can be translated into machine code by an appropriate compiler. *Id.* at 3-4. Thus, as an article cited in the Petitioner's Brief puts it, "the genius of computers is that structure and function can be almost completely separated." Mark A. Lemley, *Software Patents and the Return of Functional Claiming*, 2013 Wis. L. Rev. 905, 919. Because software is functional, patentees such as Alice can claim "not what they built, but … anything that achieves the same goal, no matter how different it is," *id.* at 908, which is analogous to a pharmaceutical patent claiming "'an arrangement of atoms that cures cancer,'" asserted against anyone who purports to accomplish that goal by whatever means. *Id.*[3]

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[3] Alice's suggestion that this fundamental problem with software patents "will soon [be] address[ed] in *Nautilus, Inc. v. Biosig Instruments, Inc.*, No. 13-369," is dubious. Br. for Petitioner at 43. *Nautilus* does not involve a software patent, and the indefiniteness issue in that case arises under 35 U.S.C.

In the context of computer-aided claims, the Federal Circuit's precedent has produced a useful insight directed at that concern: "[t]o salvage an otherwise patent-ineligible process, a computer must be *integral* to the claimed invention, facilitating the process *in a way* that a person making calculations or computations could not." *Bancorp*, 687 F.3d at 1278 (emphasis added).

In *SiRF*, as noted above, the computer-implemented invention was patent-eligible where the *particular* hardware recited was not a general-purpose computer, but a "*particular* GPS receiver" that received specific physical inputs and "satellite signals," that was absolutely necessary to generate the claimed "pseudoranges," and where there was "no evidence … that the calculations here can be performed entirely in the human mind." 601 F.3d at 1332-33.

In *Research Corporation*, although the panel erroneously performed the Section 101 analysis as a "coarse eligibility filter" and without the rigor that precedent requires, *supra* § I, the panel nonetheless recognized the essential principle that the "computer" limitations must be *necessary* to the execution of the process. The *Research Corporation* panel noted two factors that provided the necessary inventive concept. First, the claimed invention satisfied a market need for a process that produced higher quality halftone images while simultaneously using less computer processor power and memory. 627 F.3d at 865. And second, because the claimed

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§ 112(b). The cited portion of the Lemley article explicitly concerns § 112(f).

method required the simultaneous complex manipulation of millions of individual pixels in multiple images, "the method could not, as a practical matter, be performed entirely in a human's mind."

Bancorp, SiRF and *Research Corporation* are specific applications of the boundary between patent-eligible and patent-ineligible claims that this Court drew in *Diehr* and *Flook*. *See Mayo*, 132 S. Ct. at 1298-99 (discussing *Diehr* and *Flook*). In *Diehr*, the underlying Arrhenius equation was not patentable, but the overall process was patentable "because of the way additional steps of the process integrated the equation into the process as a whole": there was no suggestion in *Diehr* that the additional steps "were in context obvious, already in use, or purely conventional." *Mayo*, 132 S. Ct. at 1298-99 (discussing *Diehr*). In *Flook*, on the other hand, the additional steps were all "conventional or obvious" and added nothing to the underlying mathematical formula. *Id.* at 1299. Consistent with *Diehr*, *Flook*, and *Mayo—Bancorp*, *SiRF*, and *Research Corporation* demonstrate that the specific application of a computer-aided mental process may be patent eligible when the process could not be performed by a human being without the assistance of a computer.

III. Alice's Claims are Unpatentable Under Section 101.

The integration of a computer is not essential to Alice's claimed processes beyond making those processes faster or more efficient. Alice's claims are thus akin to the patent-ineligible processes in *Flook*,

Bilski, *Bancorp*, *Fort Properties*, *Dealertrack*, and *CyberSource*, and unlike the patent-eligible processes in *Diehr*, *SiRF*, and *Research Corporation*.

Following a careful analysis of this Court's precedents and Alice's patents, the district court recognized that Alice's patents are directed to the "abstract idea of employing an intermediary to facilitate simultaneous exchange of obligations in order to minimize risk." *CLS Bank*, 768 F. Supp. 2d at 243. In other words, Alice has patented computer-implemented escrow, "a basic business or financial concept much like [that] struck down in *Bilski*." *Id.*

The unpatentability of Alice's claims is perhaps clearest in method claim 33 of Patent No. 5,970,479—which Alice describes as "representative," and which does not recite a computer at all. *See Add. 1a, infra*. As CLS well explains, that claim is simply a broad claim to financial intermediation, indistinguishable from the patent-ineligible claim 1 in *Bilski*. Br. for Respondent at 25-28. Alice states that "the method claims require the use of a computer," and refers to statements in the patent's specification regarding an "automated infrastructure" that works in "real-time." Br. for Petitioner at 9. Taking Alice at its word, this is a classic case of a process a human could perform, where the "computer" adds nothing but speed and efficiency (in "real-time"), much like the unpatentable claims in *Bancorp*, *Fort Properties*, and *Dealertrack*. *See* § II.A, *supra*. The "computer" is not "integral to the claimed invention," but rather "employed only for its most basic function"—speed and automation. *Bancorp*, 678 F.3d at 1278. In

other words, the use of a computer to carry out financial mediation in "real-time" is the sort of "well-understood, routine, conventional activity already engaged in by the [relevant] community" that "add[s] nothing significant" to the claims to render them patentable. *Mayo*, 132 S. Ct. at 1298.

Alice's system claims fare no better. They broadly recite generic computers "configured to" perform part or all of the claimed "methods." This Court's observation in *Quanta Computer, Inc. v. LG Electronics*, 553 U.S. 617, 629 (2008)—that "[a]pparatus and method claims may approach each other so nearly that it will be difficult to distinguish the process from the function of the apparatus"—is particularly apt here. *See also Benson*, 409 U.S. at 67-68 ("the same principle applies" to the patentability of method and system claims). Comparing the method and system claims Alice describes as "representative"—method claim 33 of Patent No. 5,970,479 (*Add. 1a, infra*), and system claim 26 of Patent No. 7,725,375 (*Add. 2a, infra*)—shows that Alice has taken its claims for "methods" of financial intermediation and claimed an arrangement of generic, functional computer parts (a "data processing system," "data storage unit," and "communications controller") "configured to" assist with or carry out the methods. *Add. 2a*, *infra*. The method step of "creating" shadow records, for example, appears in the system claim's recitation of a "data storage unit" having that information "stored therein." Similarly, the "obtaining," "adjusting" and "instructing" method steps appear in the system claim's recitation of a "computer," "configured to" "receive a transaction," "adjust" shadow records, and

"generate an instruction" to an exchange institution "adjust" records. Alice's brief makes no effort to deny that it relies on the simple recitation of generic computer parts to save its claims. Alice asserts that it invented a "machine," by simple virtue of the fact that its "system" claims recite generic computer parts such as a "data processing system," a "data storage unit," and a "communications controller." Br. for Petitioner at 6-9.

Alice, of course, did not invent any of the claimed hardware, and its claims are not limited to any particular source-code implementation of the claimed methods. *See* Br. for Petitioner at 9. Alice is presumably suing CLS because it believes that CLS is performing financial mediation using a computer, as opposed to depending on pen and paper to do so. Alice's "computer" is not integral to the claims, unlike the application-specific "*particular* GPS receiver" of *SIRF* that was necessary to generate claimed "pseudoranges" and perform calculations that humans could not. *See supra* § II.B. Rather, it is precisely the sort of artificial draftsmanship that this Court has rejected in cases such as *Mayo*, 132 S. Ct. at 1297 *Bilski*, 130 S. Ct. at 3231; *Flook*, 437 U.S. at 589-91; and *Benson*, 409 U.S. at 71-72, as "insignificant post-solution activity," and precisely the sort of gimmick to which patentees often resort to avoid having their cases dismissed at the threshold of litigation.

The district court correctly recognized that Alice's token recitation of generic computer parts such as a "data processing system," a "data storage unit," and a "communications controller" did not supply the

required "inventive concept." *CLS Bank*, 768 F. Supp. 2d at 247 ("The method claims before the court are not limited by electronic implementation, and … would serve to patent the fundamental and abstract concept itself."). *Mayo* explained that Section 101 requires that a patent "provide practical assurance that the process is more than a drafting effort designed to monopolize the law of nature itself." 132 S. Ct. at 1297. As the district court correctly concluded, Alice's patent provides no such assurance. *CLS Bank*, 768 F. Supp. 2d at 253 ("The system claims are not a specific and limited application of a general business concept, but instead seek to preempt the concept itself when employed by any computer coupled with a data storage unit."). Indeed, the dependent claims underscore just how staggeringly broad Alice's claims are. *Id.* at 246 ("by looking to the dependent claims … one understands the reach of the methods claimed ... If patentable, these claims could preempt the use of an electronic intermediary, using shadow credit and/or debit records, as a manner in which to exchange an infinite array of tangible and intangible representations of value.").

It is critical to the functioning of the Nation's banking system that the Court recognize and apply the insights described above to the claims in this case and affirm the ruling of the district court and the en banc Federal Circuit that the claims are unpatentable under 35 U.S.C. § 101. The Clearing House clears more than $2 trillion per day across its networks, and as its members rely increasingly on computers, they are increasingly attractive targets for patentees seeking royalties on patents claiming

longstanding financial practices as patent-eligible business methods, based solely on the integration of a computer. As CLS aptly puts it, such patentees have recited an economic concept like "escrow" and added some variation of the words "compute it." Br. for Respondent at 1. If *Bilski* and *Mayo* are to be applied faithfully here, the unpatentability of Alice's claims must be affirmed.

Claims such as in *Bancorp*, *Dealertrack*, and *in this case* are problematic for the financial industry when courts decline to enforce Section 101 rigorously. Because of the functional nature of software, patentees like Alice can claim "not what they built, but … anything that achieves the same goal, no matter how different it is," Lemley, 2013 Wisc. L. Rev. at 908. Most financial transactions are, at base, mathematical algorithms of the type that this Court has historically found categorically unpatentable. Nevertheless, patentees such as Alice often have little difficulty describing a basic class of financial transaction, and obtaining a patent that broadly covers any electronic implementation of that transaction.

As two Justices observed in *Bilski*, quoting Judge Mayer's dissent below, after the Federal Circuit announced a very lenient test for Section 101 in *State Street Bank*, what followed was "patents that 'ranged from the somewhat ridiculous to the truly absurd.'" *Id.* at 3259 (Breyer, J., concurring) (quoting *In re Bilski*, 545 F.3d 943, 1004 (Fed. Cir. 2008) (en banc) (Mayer, J., dissenting)). The quoted Judge Mayer dissent noted some examples:

> *See, e.g.*, … U.S. Patent No. 5,862,223 (method for selling expert advice); U.S. Patent No. 6,014,643 (method for trading securities); U.S. Patent No. 6,119,099 (method of enticing customers to order additional food at a fast food restaurant); U.S. Patent No. 6,329,919 (system for toilet reservations); …. There has even been a patent issued on a method for obtaining a patent. *See* U.S. Patent No. 6,049,811.

Bilski, 545 F.3d at 1004 (Mayer, J., dissenting). While some of those examples are merely amusing, similar patents have had real and pernicious consequences for the financial industry.

As one example, a holding company named "Every Penny Counts" has several patents claiming protection for the basic math of rounding off, and has sued Bank of America, Visa, American Express, and numerous other financial institutions whose services include any rounding-off component performed by a computer. *See, e.g.*, *Every Penny Counts, Inc. v. Am. Express Co.*, 563 F.3d 1378, 1380-81 (Fed. Cir. 2009). Like Alice, Every Penny Counts' patents include system claims that attempt to avoid Section 101 by cloaking the unpatentable algorithm in generic machine parts. *See CLS Bank*, 768 F. Supp. 2d at 239-41 (discussing *Every Penny Counts*). In litigation against Bank of America, Every Penny Counts filed a complaint requesting a permanent injunction, treble damages, and attorney fees based on what it referred to as its "Rounder Patent." Every Penny Counts argued that its system claims were

patentable because they recited "a system comprised of structural components, including a network, a point of sale terminal, a card reader, and a bank's central computer that is programmed to carry out an algorithm." Every Penny Counts, Inc., Mot. for Summ. J., 2009 WL 1240559 (Mar. 16, 2009). The district court rejected that contention, and properly so. *See Every Penny Counts, Inc. v. Bank of Am. Corp.*, No. 2:07-CV-042, 2009 WL 6853402, at *1 (M.D. Fla. May 27, 2009). Every Penny Counts has never prevailed in court, but has been able to exploit the prevailing uncertainty over the scope of Section 101 to extract settlements and force the financial industry to pay significant legal fees to defend against strike suits.

As another example, a holding company named "Content Extraction and Transmission" (CET) has likewise sued much of the banking industry, on a handful of patents covering the basic notion of "processing information." *See, e.g.*, *Content Extraction & Transmission v. Wells Fargo Bank*, No. 12-2501, 2013 WL 3964909 (D.N.J. July 31, 2013). Specifically, CET's asserted claims cover the mere abstract idea of extracting, storing, and/or processing data from hardcopy documents. *Id.* at *2. On these claims, CET asserted infringement against the banks for the processing of deposits at ATMs and by mobile phones. In defending the validity of its patents, CET argued that the generic recitation of a "scanner" and a "computer" in certain of its claims was sufficient to satisfy the Section 101 patentability requirement. The district court rejected that argument, however, stating: "gathering information from a hardcopy document can be done by hand and manually

inputted into a general purpose computer. The fact that a scanner, or other machine, may make a given step more efficient does not render the machine integral." *Id.* at *12. To that end, the district court recognized, "the mere use of a computer to more quickly and efficiently—or as in the case of the alleged infringement in this case, process deposits at an ATM—accomplish a given task does not create meaningful limitation on an otherwise abstract and wide-ranging concept." *Id.* The court in *CET* got it right, holding these claims unpatentable as a threshold matter. Nevertheless, *CET* illustrates the pernicious consequences resulting from the uncertainty in Section 101 jurisprudence, which is leaving the Nation's banking industry to repeatedly defend itself against patents claiming basic, fundamental processes.

If Alice's recitation of generic computer parts is sufficient to make its algorithm patent eligible, then Section 101 is a dead letter in the realm of software, and the result will be a tax on the financial industry, paid to any patentee clever enough to cloak a basic transaction in generic computer parts. The Court should decline Alice's invitation to roll back the essential protections that Section 101 has provided for more than a century against the sorts of patents that "tend to impede innovation more than … promote it." *Mayo*, 132 S. Ct. at 1293.

CONCLUSION

The Court should reaffirm that Section 101 is a substantive, threshold test of patentability that should be assessed early in the litigation. And the Court should hold that the addition of a computer to

an otherwise patent-ineligible mental process does not transform that process into a patent-eligible invention unless the integration of the recited computer is essential to performing the claimed process, and not merely used to make the process easier, cheaper, or more efficient to perform. Applying those principles to this case, the Court should affirm the judgment that all of Alice's asserted claims are unpatentable under 35 U.S.C. § 101.

Respectfully submitted,

SUSAN M. DAVIES
WILLIAM H. BURGESS*
Kirkland & Ellis LLP
655 Fifteenth Street, N.W.
Washington, D.C. 20005
(202) 879-5000
wburgess@kirkland.com

**Counsel of Record*

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U.S. Patent No. 5,970,479, claim 33 (JA383-84):

A method of exchanging obligations as between parties, each party holding a credit record and a debit record with an exchange institution, the credit records and debit records for exchange of predetermined obligations, the method comprising the steps of:

> (a) creating a shadow credit record and a shadow debit record for each stakeholder party to be held independently by a supervisory institution from the exchange institutions;
>
> (b) obtaining from each exchange institution a start-of-day balance for each shadow credit record and shadow debit record;
>
> (c) for every transaction resulting in an exchange obligation, the supervisory institution adjusting each respective party's shadow credit record or shadow debit record, allowing only these transactions that do not result in the value of the shadow debit record being less than the value of the shadow credit record at any time, each said adjustment taking place in chronological order, and
>
> (d) at the end-of-day, the supervisory institution instructing ones of the exchange institutions to exchange credits or debits to the credit record and debit record of the respective parties in accordance with the adjustments of the said permitted transactions, the credits and debits being irrevocable, time invariant obligations placed on the exchange institutions.

U.S. Patent No. 7,725,375, claim 26 (JA1260-61):

A data processing system to enable the exchange of an obligation between parties, the system comprising: a communications controller, a first party device, coupled to said communications controller, a data storage unit having stored therein (a) information about a first account for a first party, independent from a second account maintained by a first exchange institution, and (b) information about a third account for a second party, independent from a fourth account maintained by a second exchange institution; and a computer, coupled to said data storage unit and said communications controller, that is configured to (a) receive a transaction from said first party device via said communications controller; (b) electronically adjust said first account and said third account in order to effect an exchange obligation arising from said transaction between said first party and said second party after ensuring that said first party and/or said second party have adequate value in said first account and/or said third account, respectively; and (c) generate an instruction to said first exchange institution and/or said second exchange institution to adjust said second account and/or said fourth account in accordance with the adjustment of said first account and/or said third account, wherein said instruction being an irrevocable, time invariant obligation placed on said first exchange institution and/or said second exchange institution.