2011-1301

IN THE 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.

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

PRINCIPAL *EN BANC* BRIEF
FOR CLS BANK INTERNATIONAL AND CLS SERVICES LTD.

Mark A. Perry
Principal Attorney
Brian M. Buroker
Michael F. Murray
Alexander N. Harris
GIBSON, DUNN & CRUTCHER LLP
1050 Connecticut Avenue, N.W.
Washington, D.C. 20036
Telephone: (202) 955-8500
Facsimile: (202) 530-9696

Michael A. Valek
GIBSON, DUNN & CRUTCHER LLP
2100 McKinney Avenue
Suite 1100
Dallas, TX 75201

Attorneys for Plaintiff-Appellee CLS Bank International and
Counterclaim-Defendant Appellee CLS Services Ltd.

Claim 33 Of The '479 Patent

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.

JA386, 65:23–50.

CERTIFICATE OF INTEREST

Counsel for Plaintiff-Appellee CLS Bank International and Counterclaim-Defendant Appellee CLS Services Ltd. certifies the following:

1. The full names of every party or amicus represented by me are:

   CLS Bank International
   CLS Services Ltd.

2. The names of the real parties in interest (if the party named in the caption is not the real party in interest) represented by me are:

   CLS Bank International
   CLS Services Ltd.

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the parties or amici curiae represented by me are:

   CLS UK Intermediate Holdings Ltd.

   In addition, CLS UK Intermediate Holdings Ltd. is owned (100%) by CLS Group Holdings AG.

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 agency or are expected to appear in this Court are:

   Mark A. Perry
   Brian M. Buroker
   Michael F. Murray
   Alexander N. Harris
   GIBSON, DUNN & CRUTCHER LLP
   1050 Connecticut Avenue, N.W.
   Washington, D.C. 20036
   Telephone: (202) 955-8500

   Michael A. Valek
   GIBSON, DUNN & CRUTCHER LLP
   2100 McKinney Avenue
   Suite 1100
   Dallas, TX 75201

Former counsel:

William A. Tanenbaum
Steven J. Glassman
Stephen J. Elliott (no longer with the firm)
Kaye Scholer LLP
425 Park Avenue
New York, NY 10022
Telephone: (212) 836-8000

David O. Bickart
Kaye Scholer LLP
The McPherson Building
901 Fifteenth Street, N.W.
Washington, D.C. 20005
Telephone: (202) 682-3500

Date: November 30, 2012

Mark A. Perry
Gibson, Dunn & Crutcher LLP
1050 Connecticut Avenue, N.W.
Washington, D.C. 20036
Telephone: (202) 955-8500

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STATEMENT OF RELATED CASES

This Court denied a petition for interlocutory appeal on February 2, 2010. *CLS Bank Int'l v. Alice Corp.*, No. 2010-M922, 411 F. App'x 306 (Fed. Cir. 2010) (Mayer, Bryson, Dyk, JJ.). This Court issued a published opinion in this appeal on July 9, 2012. *CLS Bank Int'l v. Alice Corp.*, 685 F.3d 1341 (Fed. Cir. 2012) (Linn, Prost, O'Malley, JJ.). That opinion was vacated when the Court agreed to rehear the case *en banc*. *CLS Bank Int'l v. Alice Corp.*, No. 2011-1301, 2012 WL 4784336, at *1 (Fed. Cir. Oct. 9, 2012).

We are not aware of any other case pending in this or any other court involving these parties or patents, although several other pending appeals involve similar questions of patent-eligibility under 35 U.S.C. § 101. *See Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can.*, 687 F.3d 1266 (Fed. Cir. 2012); *Ultramercial, LLC v. Hulu, LLC*, 657 F.3d 1323 (Fed. Cir. 2011), *vacated sub nom. Wildtangent, Inc. v. Ultramercial, LLC*, 132 S. Ct. 2431 (2012); *Accenture Global v. Guidewire*, No. 2011-1486 (Fed. Cir.).

JURISDICTIONAL STATEMENT

The district court, which had jurisdiction under 28 U.S.C. §§ 1331 and 1338(a), entered a final judgment on March 9, 2011. A notice of appeal was timely filed on March 18, 2011. This Court has jurisdiction under 28 U.S.C. § 1295(a)(1).

STATEMENT OF THE ISSUES

The Court's order granting *en banc* rehearing specifies the following issues, brief answers to which are provided in the Summary of the Argument:

I. What test should the court adopt to determine whether a computer-implemented invention is a patent ineligible "abstract idea"; and when, if ever, does the presence of a computer in a claim lend patent eligibility to an otherwise patent-ineligible idea?

II. 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?

STATEMENT OF THE CASE

CLS Bank International sought a declaratory judgment that U.S. Patent Nos. 5,970,479, 6,912,510, 7,149,720, and 7,725,375 are invalid and/or unenforceable and that its business activities do not infringe any of those patents. Alice Corporation Pty. Ltd. ("Alice") counterclaimed for infringement against CLS Bank International and CLS Services Ltd. (collectively, "CLS"), asserting claims 33 and 34 of the '479 patent and all claims of the '510, '720, and '375 patents.

CLS and Alice filed cross-motions for summary judgment on whether the asserted claims are patent-ineligible under 35 U.S.C. § 101. For that limited pur-

pose, the parties stipulated that the '510 patent "require[s] the use of a computer." 768 F. Supp. 2d at 236 (JA24).

The district court ruled that the asserted claims are not patent-eligible because they recite "the abstract idea of transformation or manipulation of legal obligations or business risks." 768 F. Supp. 2d at 243 (JA37). With respect to the method claims, the district court ruled that implementation using a general purpose computer "fails to limit" that idea because the steps "could be performed without use of a computer." *Id.* at 242, 247 (JA34, 43). The court ruled that the system claims too "represent merely the incarnation of this abstract idea on a computer" and fail to provide a "meaningful limitation," while the media claims "are also directed to the same abstract concept." *Id.* at 252, 255 (JA51, 56).

A divided panel of this Court reversed. The majority said that if "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." 685 F.3d at 1352. Applying that standard, the majority concluded that the patents claim statutory subject matter. *Id.* at 1353–55. Judge Prost dissented, disagreeing both with the majority's standard for evaluating Section 101 challenges and with its conclusion that the claims asserted here are patent-eligible. *Id.* at 1357. All three members of the panel agreed that, in the context of the patents-in-suit, the system

and media claims would stand or fall with the method claims. *Id.* at 1353 (majority opinion); *see also id.* at 1360 (Prost, J., dissenting).

This Court granted CLS' petition for rehearing *en banc*, vacating the panel decision. 2012 WL 4784336, at *1.

STATEMENT OF THE FACTS

Chartered under the Federal Reserve Act, CLS was established in the late 1990s by the international banking community, in cooperation with a number of central banks, as a payment system to mitigate risk in the foreign exchange market. CLS mitigates settlement risk—the risk that one transaction counterparty will transfer its funds and the other will fail to do so—by ensuring that both parties have fulfilled their respective obligations before directing the exchange of currencies. CLS plays a critical role in the safety of the global currency exchange market.

Today, CLS serves over sixty Settlement Members, including most of the largest financial institutions in the United States, all of which are subject to prudential supervision and regulation in their respective jurisdictions. It also settles trades for thousands of third-party users. While CLS is owned by many of the largest participants in the foreign exchange market, it is highly connected to other financial systems and continues to acknowledge and further the dual public-private purpose that gave rise to its creation.

CLS plays an important role in the international financial industry. In May 2010, during a period of market volatility, it settled an average of one million payment instructions per day. *See* www.cls-group.com/About/Pages/History.aspx (last visited Nov. 28, 2012). In July 2012, CLS was named one of the eight entities initially designated by the Financial Stability Oversight Council, which is chaired by the Secretary of the Treasury under the Dodd-Frank Act, as a "systemically important" financial market utility to the U.S. financial system. *See* Financial Stability Oversight Council Makes First Designations in Effort to Protect Against Future Financial Crises, www.treasury.gov/press-center/press-releases/pages/tg1645.aspx (July 18, 2012). In recognition of its systemic importance, CLS has been issued similar designations in other jurisdictions as well. It also is subject to cooperative oversight by central banks from twenty-two countries pursuant to an arrangement coordinated by the Federal Reserve.

Alice is an Australian company whose primary assets include the patents at issue in this appeal. As far as CLS is aware, Alice does not operate any active exchange services or compete with CLS in any market. With respect to this suit, therefore, Alice is a non-practicing entity that seeks only to exact licensing revenue from CLS. *See eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 396 (2006) (Kennedy, J., concurring) ("An industry has developed in which firms use patents

not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees").

Alice holds four related patents that broadly claim the use of an intermediary or middleman to mitigate settlement risk in financial transactions. These business method patents thus seek to monopolize an abstract idea that has long been understood to be a part of financial intermediation. 685 F.3d at 1360 (Prost, J., dissenting); *see generally* Franklin Allen & Anthony M. Santomero, *The Theory of Financial Intermediation*, 21 J. Banking & Finance 1461 (1998).

The '375 patent specification, which is representative, notes that the relevant claims deal "with the handling of contracts at maturity, and specifically the transfer of entitlement." JA838, 5:50–52. The specification states that the claimed invention overcomes "the short-comings of existing risk management mechanisms" by providing "a low-cost mechanism" for managing "a virtually infinite number and range of risk types." JA837, 3:22–23; 838, 5:40–48. This is accomplished, according to the claims, by having a "supervisory institution" keep track of the credits (or debits) incurred by "exchange institutions" during intraday trading, and then settling the accounts at the end of the trading day. *See*, *e.g.*, JA386, 65:28–50. The '510 and '479 patents contain the method claims; the '720 and '375 patents contain the system claims; and the '375 patent contains the media claims. The latest three

of these patents are subject to a terminal disclaimer, which was entered during prosecution to avoid a double patenting rejection. JA909, 916, 918.

The panel and the district court focused on claim 33 of the '479 patent as representative of the asserted method claims. It can be briefly summarized as reciting "[a] method of exchanging obligations as between parties," comprising the steps of (a) "creating a shadow credit . . . and . . . debit record" for each party, (b) "obtaining . . . a start-of-day balance" for such records, (c) "adjusting each respective party's" records to reflect intra-day transactions "in chronological order," "allowing only those transactions that do not result in the value of the shadow debit record being less than the value of the shadow credit record," and (d) "at the end-of-day, . . . instructing" the parties' financial institutions to credit their accounts "in accordance with the adjustments" made to the shadow records during the trading day. JA386, 65:23–50. The representative specification explains that the purpose of the "shadow records" (or "special-purpose accounts") "is to ensure that only [intermediary]-initiated debits and credits are capable of being effected to the accounts." JA850, 29:17–19. It notes that the communication steps (b) and (d) can be performed using modems, fax machines, or even "a voice connection via an operator." JA839, 7:61–67; 8:1–5.

The system claims recite "[a] data processing system" comprising "a data storage unit" with information about the accounts, and "a computer" that is "con-

figured" to perform the steps of the method claims. *See*, *e.g.*, JA706, 65:42–61 (claim 1 of the '720 patent, which the panel found representative of the system claims). Some system claims also include "a communications controller." *See*, *e.g.*, JA706, 66:3 (claim 14).

The media claims recite "[a] computer program product comprising a computer readable storage medium" with "program code for causing a computer" to perform the method. *See*, *e.g.*, JA869, 68:5–35 (claim 39 of the '375 patent, which the panel found representative of the media claims).

The district court explained that Alice's asserted "methods are directed to an abstract idea of employing an intermediary to facilitate simultaneous exchange of obligations in order to minimize risk." 768 F. Supp. 2d at 243 (JA37). The claims recite "the fundamental idea" known as escrow: "employing a neutral intermediary to ensure that parties to an exchange can honor a proposed transaction, to consummate the exchange simultaneously to minimize the risk that one party does not gain the fruits of the exchange, and then irrevocably to direct the parties, or their value holders, to adjust their accounts or records to reflect the concluded transaction." *Id.* at 243–44 (JA37). Although the district court assumed that the claims required computer implementation, it held that this did little to narrow the claims, which apply "across an incredible swath of the economic sector." *Id.* at 246, 248, 255 (JA41, 43, 52).

Computer implementation "fails to limit" this abstract idea, the district court found, because the method "could be performed without use of a computer" and the claims foreclosed the most popular means of implementing the idea. 768 F. Supp. 2d at 242, 247 (JA34, 43). The district court concluded that the system claims too "represent merely the incarnation of this abstract idea on a computer" and fail to provide a "meaningful limitation," and that the media claims "are also directed to the same abstract concept." *Id.* at 252, 255 (JA51, 56). The court therefore held that all of the claims at issue are patent-ineligible. *Id.* at 255 (JA56).

SUMMARY OF THE ARGUMENT

CLS respectfully submits the following answers to the two questions presented by the *en banc* Court.

I. Abstract ideas and other fundamental principles such as laws of nature and natural phenomena are not patentable. *E.g.*, *Bilski v. Kappos*, 130 S. Ct. 3218, 3225 (2010). In determining whether a principle is unpatentable, "the underlying functional concern here is a *relative* one: how much future innovation is foreclosed relative to the contribution of the inventor." *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1303 (2012). To be patent-eligible, a method must include an "inventive concept" beyond the abstract idea on which it is based. *Id.* at 1294; *Parker v. Flook*, 437 U.S. 584, 594 (1978). Adding conventional, well-understood elements to an abstract idea does not render it patentable.

Mayo, 132 S. Ct. at 1297–98; *Flook*, 437 U.S. at 594. This Court correctly applied these constraints to a computer-implemented method in *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can.*, 687 F.3d 1266 (Fed. Cir. 2012), explaining that a general purpose computer running off-the-shelf components cannot supply the requisite inventive concept. *Id.* at 1278. Rather, to supply an inventive concept, computer elements must be "integral" to the method and specialized for the method in the sense that they perform more than "basic" computing functions. *Id.* The method claims asserted here are not patent-eligible.

II. Patent eligibility does not turn on the statutory class of invention described in the claim language. All of the statutory classes set forth in Section 101—*i.e.*, a "process, machine, manufacture, or composition of matter"—are subject to the same threshold scrutiny, including the inventive concept requirement, under Section 101 as a "process" (method) claim. *See*, *e.g.*, *Mayo*, 132 S. Ct. at 1293–94. In applying that threshold analysis, courts must look to the underlying invention. *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1374 (Fed. Cir. 2011). This approach accords with the Supreme Court's precedents, which have not drawn a formalistic distinction based on the statutory category of the claims, as well as the Court's observation that patent applicants should not be able to avoid patent limitations by drafting technique. *See Flook*, 437 U.S. at 590. In

this case, the system and media claims are patent-ineligible for the same reasons as the method claims.

ARGUMENT

The district court correctly granted judgment to CLS on the ground that the claims asserted in this case do not recite patentable subject matter under 35 U.S.C. § 101. That determination is reviewed *de novo* on the summary judgment record. *CyberSource*, 654 F.3d at 1369. It should be affirmed.

I. A Patent-Eligible Method Must Be Implemented Through An Inventive Concept

To be patent-eligible, a computer-implemented method must include an "inventive concept" beyond the abstract idea on which it is based. *See Mayo*, 132 S. Ct. at 1294; *Flook*, 437 U.S. at 594. While there is no single "test" for patent-eligibility (*Bilski*, 130 S. Ct. at 3226), it is clear that adding conventional, well-understood elements to an abstract idea does not render it patentable. *Mayo*, 132 S. Ct. at 1297–98; *Flook*, 437 U.S. at 594. This necessarily means that a general purpose computer running off-the-shelf components cannot supply the requisite inventive concept. *Bancorp*, 687 F.3d at 1278. Because the method claims asserted here do no more than that, they fail to clear the Section 101 threshold.

A. Where A Method Claim Is Predicated On An Abstract Idea, An Inventive Concept Is Necessary

The *en banc* Court's first question is: "What test should the court adopt to determine whether a computer-implemented invention is a patent ineligible 'abstract idea'; and when, if ever, does the presence of a computer in a claim lend patent eligibility to an otherwise patent-ineligible idea?"

CLS respectfully submits that *Mayo* and *Bilski* answer the first half of the Court's question. An unpatentable abstract idea is one that would foreclose future innovation in the absence of a limitation—an "inventive concept"—in its implementation. *Mayo*, 132 S. Ct. at 1294. It is not enough to recite an abstract principle and say "apply it" (*id.*) using a computer; rather, a method claim must recite steps that are "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [abstract idea] itself." *Id*.

With respect to the second half of the Court's first question, CLS submits that this Court applied the correct approach in *Bancorp*, where it held that to render patentable an otherwise ineligible abstract idea, a "computer must be integral to the claimed invention" and must be specialized to the invention in the sense that it is performing more than "basic" computing functions. 687 F.3d at 1278. The *Bancorp* approach is consistent with the Supreme Court's Section 101 jurisprudence, is judicially administrable, and accords with the reasonable expectations of the inventive community.

1. Abstract Ideas Are Not Patentable

The Constitution empowers Congress "[t]o promote the Progress of . . . useful Arts, by securing for limited Times to . . . . Inventors the exclusive Right to their . . . Discoveries." U.S. Const. art. I, § 8, cl. 8. The Progress Clause is both a "grant" of and "limitation" on Congress's power. *Graham v. John Deere Co.*, 383 U.S. 1, 5 (1966). Importantly, the Legislature may not "authorize the issuance of patents whose effects are to remove existent knowledge from the public domain." *Id.* at 6. Concomitantly, the Executive (through the Commerce Department's Patent and Trademark Office) may not issue such a patent. *See id.*; MPEP 1 (8th ed. Rev. 3, Aug. 2005). Finally, the Judiciary's power and obligation is to police issued patents to ensure that they do not transgress this constitutionally based limitation on government-granted exclusivity. *See*, *e.g.*, *Brenner v. Manson*, 383 U.S. 519, 534–35 (1966).

Section 101 of the Patent Act "defines the subject matter that may be patented" subject to the limitations of the Progress Clause. *Bilski*, 130 S. Ct. at 3225. It 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.

The Supreme Court has "long held that [Section 101] contains an important implicit exception" that "'[l]aws of nature, natural phenomena, and abstract ideas' are not patentable." *Mayo*, 132 S. Ct. at 1293 (quoting *Diamond v. Diehr*, 450 U.S. 175, 185 (1981)). These are the "basic tools of scientific and technological work." *Gottschalk v. Benson*, 409 U.S. 63, 67–68 (1972). Claims directed solely to such fundamental principles, therefore, are not eligible for patenting. *See Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980).

The Supreme Court has expressly, and repeatedly, rejected approaches that would render the constitutionally mandated and judicially recognized "exception to § 101 patentability a dead letter." *Mayo*, 132 S. Ct. at 1303; *see Bilski*, 130 S. Ct. at 3225; *Flook*, 437 U.S. at 593. That exception, the Court has held, performs a "screening function" that is a "threshold test" for patentability. *Mayo*, 132 S. Ct. at 1303; *Bilski*, 130 S. Ct. at 3225.

a. The Functional Inquiry Is Whether Too Much Future Innovation Is Foreclosed Relative To The Contribution Of The Inventor

A precept as old as our patent system holds that "[a]n idea of itself is not patentable." *Rubber-Tip Pencil Co. v. Howard*, 87 U.S. (20 Wall.) 498 (1874). Similarly, "a scientific truth, or the mathematical expression of it, is not [a] patentable invention." *Mackay Radio & Tel. Co. v. Radio Corp. of Am.*, 306 U.S. 86, 94 (1939). "Einstein could not patent his celebrated law that $E=mc^2$." *Chakrabarty*,

447 U.S. at 309. Nor is a "phenomenon of nature" patentable. *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948). "[N]o one can claim" an "exclusive right" to these various fundamental principles (*Le Roy v. Tatham*, 55 U.S. (14 How.) 156, 175 (1853)); rather they are "free to all men and reserved exclusively to none." *Funk Bros.*, 333 U.S. at 130.

The Supreme Court has collected these unpatentable principles under the rubric of "laws of nature, natural phenomena, or abstract ideas" (*Mayo*, 132 S. Ct. at 1293), and treats them interchangeably. *Compare id.* (law of nature), *with Bilski*, 130 S. Ct. at 3231 (abstract idea). Indeed, the Supreme Court recently vacated this Court's decision in a computer-implemented method case in light of *Mayo*, which involved a law of nature. *Ultramercial, LLC v. Hulu, LLC*, 657 F.3d 1323 (Fed. Cir. 2011), *vacated sub nom. Wildtangent, Inc. v. Ultramercial, LLC*, 132 S. Ct. 2431 (2012). This Court, too, has recognized the equivalence of these principles. *See In re Bilski*, 545 F.3d 943, 952 n.5 (Fed. Cir. 2008) (en banc) ("As used in this opinion, 'fundamental principles' means 'laws of nature, natural phenomena, and abstract ideas'"), *aff'd*, 130 S. Ct. 3218. Indeed, there is no coherent basis for distinguishing among them: The descriptions used in the Court's cases are merely alternative formulations for the fundamental precept that the patent system cannot withdraw from public discourse the building blocks of innovation and advancement in the "useful Arts." *Mayo*, 132 S. Ct. at 1303 (the Supreme Court's "cases

have endorsed a bright-line prohibition against patenting laws of nature, mathematical formulas and the like, which serves as a somewhat more easily administered proxy for the underlying 'building-block' concern"). This constraint, of course, applies equally to principles of *economic* science. *See*, *e.g.*, *Bilski*, 130 S. Ct. at 3231.

"Laws of nature, natural phenomena, and abstract ideas" are not patent-eligible because they "are the 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 1292. The historical exception to Section 101 thus enforces the constitutional limit on governmental actions that "enlarge the patent monopoly without regard to the innovation," "remove existent knowledge," or "restrict free access to materials already available." *Graham*, 383 U.S. at 6.

O'Reilly v. Morse, 56 U.S. (15 How.) 62 (1854), provides an illustrative early example of the foreclosure concern. *See Mayo*, 132 S. Ct. at 1294. The case involved a patent on the Morse telegraph, which used electro-magnetic signals for communication. The Court sustained several claims that recited particular applications of this principle, but the patent also included a claim of "electro-magnetism, however developed for marking or printing intelligible characters." 56 U.S. at 112 (internal quotation marks omitted). The Court held this sweeping claim ineligible:

"For aught that we now know some future inventor, in the onward march of science, may discover a mode of writing or printing at a distance by means of the electric or galvanic current, without using any part of the process or combination set forth in the plaintiff's specification" that is "less complicated," "less liable" to error, and "less expensive," but neither the inventor nor the public could use it, because of the plaintiff's claim. *Id.* at 113. As the Supreme Court later explained, *Morse* holds that an inventor may not patent a mere "principle." *Flook*, 437 U.S. at 592.

The Supreme Court has not endeavored to more precisely define what constitutes an unpatentable abstract idea; rather, it evaluates each claim against the framework established by its precedents. *See Mayo*, 132 S. Ct. at 1299 ("The claim before us presents a case for patentability that is weaker than the (patent-eligible) claim in *Diehr* and no stronger than the (unpatentable) claim in *Flook*"). Rather than a one-size-fits-all metric for determining whether a principle is unpatentable, *Mayo* holds that "the underlying functional concern here is a *relative* one: how much future innovation is foreclosed relative to the contribution of the inventor." *Id.* at 1303. And again, *Bilski* applied the same approach to conclude that an *economic* principle was unpatentable. 130 S. Ct. at 3231.

b. The Inventive Concept Requirement Ensures That The Patent Claims Significantly More Than The Abstract Idea Itself

"[A]ll inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Mayo*, 132 S. Ct. at 1293. Consequently, a claim is not unpatentable simply because it contains a law of nature, natural phenomena, or abstract idea, because that rule "could eviscerate patent law." *Id.* (internal quotation marks omitted); *see also Diehr*, 450 U.S. at 187.

A "particular process" may be patent-eligible even if it uses a fundamental principle. *Dolbear v. Am. Bell Tel. Co.*, 126 U.S. 1, 535 (1888). However, "to transform an unpatentable law of nature into a patent-eligible *application* of such a law, one must do more than simply state the law of nature while adding the words 'apply it.'" *Mayo*, 132 S. Ct. at 1294. This is where many abstract method claims, particularly those issued before *Bilski*, fail to comport with Section 101. Even assuming that such claims are patentable in particular circumstances (*but see Bilski*, 130 S. Ct. at 3236–39 (Stevens, J., concurring in the judgment)), the patentee must show that the claims recite, *in addition to* the abstract idea, something more that warrants exclusivity under the Patent Act. *Id.* at 3230–31 (majority opinion).

The *Mayo* Court expressly, and unambiguously, ruled that "a process that focuses upon the use of a natural law [must] also contain other elements or a combination of elements, sometimes referred to as an 'inventive concept.'" 132 S. Ct.

at 1294; *Flook*, 437 U.S. at 594; *see Quanta Computer, Inc., v. LG Elecs., Inc.*, 128 S. Ct. 2109, 2121 (2008) (referring to "inventive aspect" of a patent). "[W]ell-understood, routine, conventional activity" cannot provide an inventive concept. 132 S. Ct. at 1298; *see Bilski*, 130 S. Ct. at 3230 ("[T]he prohibition against patenting abstract ideas cannot be circumvented by . . . adding insignificant postsolution activity") (internal quotation marks omitted).

According to *Mayo*, the "inventive concept" requirement is necessary to ensure that "patent law [does] not inhibit further discovery by improperly tying up the future use" of laws of nature, natural phenomena, and abstract ideas. 132 S. Ct. at 1301. This concern is allayed because the presence of an "inventive concept" is "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the natural law itself." *Id.* at 1294.

Mayo rejected as unpatentable a three-step method for helping doctors determine the dosage for a particular class of drugs. The method included a mathematical correlation regarding drug concentrations and side effects, which is a law of nature. In assessing the patentability of the method, the Court asked "[w]hat else is there in the claims" other than the law of nature, because that by itself would be as unpatentable as Einstein's mass-energy equivalence formula. 132 S. Ct. at 1297. It then answered that the three steps of the method did not include any "inventive concept," instead consisting only of references to the audience for the

claimed method (doctors), the law of nature itself, and "'conventional or obvious' '[pre]-solution activity.'" *Id.* at 1298 (quoting *Flook*, 437 U.S. at 590).

Mayo thus crystallized what *Bilski* had done two years before, where the Court rejected as ineligible claims that did not "add" enough to the "abstract idea of hedging risk" underlying the invention. 130 S. Ct. at 3231. The claims there merely described a "fundamental economic practice" and "reduced [it] to a mathematical formula." *Id*. (internal quotation marks omitted). Like the claims in *Flook*, they contained nothing else but "token postsolution components." *Id*. Such "tokens," *Mayo* teaches, cannot constitute the requisite "inventive concept." 132 S. Ct. at 1301.

2. To Supply The Inventive Concept, A Computer Must Be Both Integral To And Specialized For The Claimed Invention

By clarifying the links between *Bilski* and an "inventive concept," the *Mayo* Court harmonized and revitalized its prior decisions in *Benson*, *Flook*, and *Diehr*, which contain important guidance for cases involving computer-implemented methods. This Court has recently applied that precedent to the questions presented here, most significantly in *Bancorp*.

a. The Supreme Court's *Benson-Flook-Diehr* Trilogy Outlines The Role Of Computer Implementation

Although recitation of an abstract idea or a law of nature by itself is not patent-eligible, "a novel and useful structure created with the aid of knowledge of a

scientific truth," such as an algorithm or formula, is patentable so long as it is implemented through an inventive concept. *Benson*, 409 U.S. at 67 (internal quotation marks omitted); *see Diehr*, 450 U.S. at 187. But it is not enough that a computer is involved in the process. In *Benson* and *Flook*, the claimed processes were expressly computer-implemented, yet those processes were not patent-eligible. Of course, neither does computer-implementation foreclose eligibility either: In *Diehr*, the claimed process was computer-implemented, and that process was patent-eligible.

In *Benson*, the Court evaluated a patent that claimed an abstract idea, implemented in "general-purpose digital computers." *Benson*, 409 U.S. at 64. Because the idea—there, an algorithm for converting decimal numbers to binary numbers—itself was directed to one of the judicially excepted categories, the inventive concept had to come from "'the application'" of the idea. *Id.* at 67 (quoting *Funk Bros.*, 333 U.S. at 130). But the invention, as claimed, could be "carried out in existing computers long in use, no new machinery being necessary." *Id*. Indeed, it could "also be performed without a computer." *Id.* It was therefore not patent-eligible. *Id.* at 71–73.

Similarly, the Court in *Flook* evaluated a claim that used a computer to perform calculations that could "be made by pencil and paper." 437 U.S. at 586. That function—"the use of computers for automatic monitoring-alarming"—was "well

known." *Id.* at 594 (internal quotation marks omitted). It therefore provided no "inventive concept" to the "application" of the mathematical formula the computer implemented. *Id.* Rather, the formula itself, which was an abstract idea, constituted the "new and presumably better" element of the claim. *Id.* Because no element in the claim added anything "inventive" to the "new" abstract idea, the claim was ineligible for a patent. *Id.*

In *Diehr*, by contrast, the Court confronted a computer-implemented invention that satisfied Section 101's "inventive concept" requirement. *See Mayo*, 132 S. Ct. at 1298. In that case, the Court held a computer-implemented process for curing rubber patentable because of the combination of elements other than the algorithm. *Diehr*, 450 U.S. at 187. The process used a mathematical formula that was "well-known." *Id.* But the other steps of the process "transformed the process into an inventive application of the formula," because they were not well-known and involved, among other things, the computerized installation of rubber in a press, closure of a rubber mold, and automatic opening of the press at the proper time. *Mayo*, 132 S. Ct. at 1299.

Viewing these cases through the lens of *Mayo* confirms that it is not the mere participation of a computer, but rather the presence of an identifiable "inventive concept" distinct from the abstract idea or law of nature, that is the key to patent-eligibility. *Flook*, 437 U.S. at 594; *see Mayo*, 132 S. Ct. at 1294. The ca-

pabilities of a general purpose computer programmed in conventional fashion—which would include off-the-shelf calculation, storage, and communication capabilities—are typically not inventive. *Flook*, 437 U.S. at 594. It follows that the implementation of a method on a conventional computer, solely utilizing the computer's basic functions of storing and calculating, will rarely if ever provide the "inventive concept" necessary to patentability.[1]

b. This Court's *Bancorp* Decision Provides An Administrable Approach To Computer Implementation

Consistent with this case law, this Court has recognized the functional distinction between a "general purpose" computer, an off-the-shelf component available to all, and a "special purpose" computer, which has been customized using hardware and/or software to perform unique tasks. *See CyberSource*, 654 F.3d at 1375. A commercial laptop running conventional word processing or database software is an example of a general purpose computer. The rubber-curing machine in *Diehr* was a special purpose computer. *See* 450 U.S. at 187.[2]

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[1] To be sure, some *other* element of such a method could provide the requisite inventive concept, in which case the participation of a computer would not *preclude* patentability. This case, however, involves claims in which the computer elements are identified as potentially inventive concepts. *See also infra* n.2.

[2] *Bancorp* and *CyberSource* drew this distinction from *In re Alappat*, 33 F.3d 1526, 1545 (Fed. Cir. 1994) (en banc), and updated it in light of *Bilski* and *Mayo*. Claims directed to both computer hardware—essentially, a set of interconnected switches—and software—the instructions that cause the switches to

A general purpose computer is a component that may be used in inventing but is not itself an inventive concept. The inclusion in a patent claim of a standard general-purpose computer running conventional programs adds nothing to the claim's patent-eligibility.

This Court recently issued an important decision applying the principles of *Mayo* and *Bilski* to the patentability of computer-implemented methods. *See Bancorp*, 687 F.3d at 1277–81. *Bancorp* articulated a mode of analysis that, CLS respectfully submits, is consistent with the Supreme Court's Section 101 framework (with roots digging a century and a half deep) and can be usefully adapted to resolve similar questions in this and other cases.

Bancorp involved "systems and methods for administering and tracking the value of life insurance policies in separate accounts." 687 F.3d at 1269. The patents used a computer to track the value of those policies and, using special formulae, calculate the values necessary to manage them. *Id.* at 1269–70. The claimed methods in *Bancorp* included a first step where the initial values were generated;

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turn on or off—may or may not be patentable depending on whether they meet all the requirements of the Patent Act. *See* Mark A. Lemley et al., *Life After* Bilski, 63 Stan. L. Rev. 1315, 1326–27 (2011). The claims asserted here recite no advancements in computer technology, so this case does not provide the Court with the opportunity to address the patentability of computer hardware or software. Nor does it involve questions of patentability that may arise outside the area of computer-implemented methods specified in this Court's *en banc* order. *See*, *e.g.*, *Ass'n for Molecular Pathology v. PTO*, 689 F.3d 1303 (Fed. Cir.) (gene patents), *petition for cert. filed*, No. 12-398 (U.S. Sept. 25, 2012).

several "calculating" and "determining" steps applicable to "the current day"; a step where the current-day value was stored; and an instruction to either remove or accumulate fees based on the calculated values. *Id.* at 1270–71. The patents also included claims to computer systems and to computer-readable media. *Id.* at 1270–72.

This Court held that the claims in *Bancorp* were not patent-eligible. Summarizing this Court's and the Supreme Court's prior precedent, *Bancorp* held that "[t]o salvage an otherwise patent-ineligible process, a computer must be integral to the claimed invention." 687 F.3d at 1278. The computer must do something different in character—not merely "more quickly"—than "a person making calculations or computations." *Id.* It cannot "simply perform[] more efficiently what could otherwise be accomplished manually." *Id.* at 1279. In other words, the invention must represent "improvements to computer technologies." *Id.* All of the claims, the Court held, added only "insignificant computer-based limitations" to abstract ideas. *Id.* They "merely employ[ed] computers to track, reconcile, and administer a life insurance policy." *Id.* This use of standard computer functions did not represent a "technological advance." *Id.* The Court also found the system and media claims equivalent to the method claims, and so held them ineligible as well. *Id.* at 1277.

Thus, under the *Bancorp* approach, for computer-implementation to supply the inventive concept, the "computer must be integral to the claimed invention." *Id.* at 1278. A claim covering an abstract idea must do more than employ a computer for its general-purpose functions alone; "simply appending conventional steps" to "abstract ideas" does not "make" those "ideas patentable." *Mayo*, 132 S. Ct. at 1300. On the other hand, a claim to "improvements to computer technologies" may be patent-eligible. *Bancorp*, 687 F.3d at 1279.

In addition to *Bancorp*, this Court's other post-*Bilski* precedential decisions recognize that mere use of a computer does not render an abstract idea patent-eligible, unless an atypical use of the computer is integral to the claimed invention.

In *CyberSource*, for example, this Court held patent-ineligible a claim for using the internet to identify credit card fraud by mapping the locations where the credit card had been used. Even though the claim covered only Internet-based uses, this Court noted that the claim "*can* be performed in the human mind, or by a human using a pen and paper." 654 F.3d at 1372 (emphasis added). The *CyberSource* Court held that "merely claiming a software implementation of a purely mental process" does not render an abstract idea patent-eligible. *Id.* at 1375 (internal quotation marks omitted).

In *Dealertrack, Inc. v. Huber*, 674 F.3d 1315 (Fed. Cir. 2012), this Court assessed a patent to streamline the way that car dealers apply for loans. *Id*. at

1318. The Court held ineligible "computer aided method" claims reciting "receiving credit application data," "selectively forwarding" that data to "terminal devices" as it obtains decisions from funding sources, and finally "forwarding funding decision data" to a "remote application entry and display device." *Id.* at 1331 (internal quotation marks omitted). *Dealertrack* held that "[t]he claim explains the basic concept of processing information through a clearinghouse." *Id.* at 1333 (internal quotation marks and alteration omitted). It noted that the computer could be programmed in "very different ways," and so did not meaningfully limit the claims, even though they were drawn solely to car loans. *Id.* (internal quotation marks omitted). This Court therefore concluded that the claims were patent-ineligible. *Id.* at 1334.

In another recent decision, the Court considered another computer-implemented abstract method, this one for "an investment tool designed to enable property owners to buy and sell properties without incurring tax liability." *Fort Props., Inc. v. Am. Master Lease LLC*, 671 F.3d 1317, 1318 (Fed. Cir. 2012). The patent claimed methods, some computer-implemented, for dividing a property into tenancies in common so as to take advantage of the rule allowing exchanges of like property without realizing taxable proceeds. *Id.* at 1319. This Court held that the "real estate investment tool designed to enable tax-free exchanges of property" was "an abstract concept." *Id.* at 1322. The computer limitation merely specified "op-

erating an electronic device that features a central processing unit." *Id.* at 1323 (internal quotation marks omitted). This use of a general-purpose computer was too "broad and general" of a "limitation" to render the claim patent-eligible. *Id.* at 1323–24.

This Court's post-*Bilski* decisions in *Bancorp*, *CyberSource*, *Dealertrack*, and *Fort Properties* reflect a considerable degree of consensus on the patent-eligibility of computer-implemented abstract methods. Indeed, other than the now-vacated panel decision in this case, it appears that only one other panel of this Court has reached an eligibility determination in this context that is directly at odds with *Mayo*—and that decision too has been vacated. *See Ultramercial*, 657 F.3d at 1323. With those two exceptions, the Court's precedential decisions involving computer-implemented methods have arrived at the correct *outcomes* even if some of the methodology employed has been overtaken by *Mayo*. *See* Robert D. Swanson, *Section 101 and Computer-Implemented Inventions*, 2012 Stan. Tech. L. Rev. (forthcoming Dec. 2012).

The approach to patent-eligibility adopted by the majority and defended by Alice in this case, however, is inconsistent with *Mayo*. *See* Pet. for Reh'g 7–15. According to the majority, patent-ineligibility must be "manifestly evident." 685 F.3d at 1356 (citing *Research Corp. Techs., Inc. v. Microsoft Corp.*, 627 F.3d 859, 868 (Fed. Cir. 2010)). This formulation derives from the understanding that Sec-

tion 101 is merely a coarse filter, and "the rest of the Patent Act" has the "primary" role of determining "patentability." *Research Corp.*, 627 F.3d at 868. In *Mayo*, the Solicitor General made much the same argument—*i.e.*, that Sections 102, 103, and 112 had the primary responsibility for screening out unpatentable claims—but the Supreme Court explicitly rejected this attempt to demote the patentable subject matter requirement. 132 S. Ct. at 1304. The majority decision cannot be reconciled with this aspect of *Mayo*. In addition, the majority failed to require or identify any inventive concept as a precondition to patentability. *CLS*, 685 F.3d at 1357–58 (Prost, J., dissenting).

In distilling the "inventive concept" formulation from its own precedents, the Supreme Court in *Mayo* provided a functional answer to the foreclosure analysis that undergirds, explicitly or implicitly, all the Section 101 exception cases. Merely ensuring that a claim is limited to a particular machine is not sufficient; concomitantly, the fact that a machine plays a significant part in the method cannot suffice. Rather, a method claim that rests on an abstract idea must also contribute some "inventive way" of using a machine to apply the idea. *Mayo*, 132 S. Ct. at 1300. The use of a computer (or other machine) must therefore involve, at least, "unconventional steps." *Id.*

Bancorp best reflects this guidance. Its approach focuses on whether, *non-inventive uses of a computer aside*, the "claimed abstract idea impermissibly

preempts" the use of the idea. 687 F.3d at 1280 (internal punctuation omitted). In this respect, the lineage to *Morse* is clear: just as Morse was not permitted to claim all uses of electro-magnetism for printing intelligible marks, the *Bancorp* approach inquires whether the involvement of a computer adds anything inventive to the underlying abstract idea which is and should remain free for all to use.

The *Bancorp* approach reflects the appropriate role of the Judiciary under the Supreme Court's Section 101 jurisprudence. The Court has long recognized that patentability is "a question of law." *Mahn v. Harwood*, 112 U.S. 354, 358 (1884). Congress created the Federal Circuit in large part to ensure a more uniform and predictable patent law. *See* S. Rep. No. 97-275, at 3–6 (1981), *reprinted in* 1982 U.S.C.C.A.N. 11, 13–16. As such, it is important that the framework for evaluating computer-implemented methods be judicially administrable. After all, patent-eligibility is a "threshold" inquiry, and courts require clear guidance to screen out ineligible patent claims at the outset of litigation. *Bilski*, 130 S. Ct. at 3225. The *Bancorp* approach provides an administrable framework under which district courts, and this Court, can evaluate Section 101 challenges to computer-implemented method claims in future cases.[3]

[3] It also should be readily adaptable to the administrative context, such that PTO examiners may use a similar approach in reviewing applications. The PTO has a long history of incorporating this Court's teachings into its patentability guidelines (*see In re Comiskey*, 554 F.3d 967, 973 (Fed. Cir. 2009); MPEP § 1721 (8th ed. Rev. 8, July 2010)), which continues to this day with the interim

A court tasked with deciding whether a particular use of a computer is integral to and specialized for a claimed method can decide most cases, including this one, by focusing on nothing more than the claims themselves. First, judges have had no difficulty determining from the claim language alone whether a human being could perform the steps—albeit much more slowly—with paper and pencil, an abacus, and so forth. Second, although some uses of computers are routine only in the relevant field, many uses of computers are conventional. Using a computer's functions in the same way or to the same end as persons of ordinary skill in the art generally use them is not inventive—and it does not take a computer scientist to recognize that the storage, comparison, display, and transmission of data are all off-the-shelf functionalities. Even steps less familiar to non-specialists than these have given courts no trouble. *See*, *e.g.*, *Bilski*, 130 S. Ct. at 3231 (concluding that the "random analysis techniques" present in some claims were "well-known"); *Flook*, 437 U.S. at 586 (holding that "changing alarm limits" is "conventional").

Where the claims are not dispositive, the specification will inform the Section 101 analysis. For example, in *Mayo*, the Supreme Court turned to the specification to learn that the claimed step of ascertaining blood metabolite levels was "well-understood, routine, conventional activity previously engaged in by scien-

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post-*Bilski* guidance adopted by the PTO. *See* MPEP §§ 2106–2106.01 (9th ed. Rev. 9, Aug. 2012). While the PTO will have to continue adapting its examination guidelines to take into account judicial precedents, this Court should adopt an approach that gives meaningful guidance to the PTO.

tists who work in the field." 132 S. Ct. at 1297–98. If "the patents [themselves] state" that a step is conventional—either by a direct statement that one of skill in the art would know how to do it or through failure to explain how to perform the step (while still satisfying enablement)—then that step is in all likelihood "well known" activity. *Id.* Limited extrinsic resources, such as dictionaries and learned treatises, may also prove useful in some cases. *Cf. Tellabs, Inc. v. Makor Issues & Rights, Ltd.*, 127 S. Ct. 2499, 2509 (2008) (discussing consideration of "other sources courts ordinarily examine when ruling on Rule 12(b)(6) motions"). But the patents here, which merely implement the abstract idea of two-sided escrow, "do not present a difficult case" requiring even those resources. *CLS*, 685 F.3d at 1359 (Prost, J., dissenting).

Importantly, *Bancorp* reflects (or, at least, would not disrupt) "the settled expectations of the inventing community," which the Supreme Court has instructed courts to consider in construing the Patent Act. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 739 (2002). By preserving the outcomes of this Court's precedential post-*Bilski* decisions, the *Bancorp* approach instantiates current expectations about which claims will and will not be eligible for patent protection. Where computer-implementation is asserted as the feature that renders an abstract idea patentable, the *Bancorp* approach focuses on whether *the use of the computer* is inventive, regardless of the breadth of the underlying idea. This will

foster innovation in keeping with the objectives of the Patent Act and the Progress Clause.

* * *

In summary, CLS respectfully submits that the Court should answer the first question presented in the *en banc* order by applying the "inventive concept" requirement of *Mayo* and *Flook* and using the approach to computer-implemented methods articulated in *Bancorp*. Under this approach, to supply the inventive concept that is distinct from the abstract idea, a computer must be integral to the claimed invention and be specialized, not merely providing basic, off-the-shelf computing functions. *Bancorp*, 687 F.3d at 1278. We now apply this framework to the method claims asserted by Alice.

B. The Method Claims Asserted Here Are Not Patent-Eligible

The patents asserted by Alice in this case principally recite a method for using a middleman to reduce settlement risk in a financial transaction. As the district court observed, "[a]t the heart of these claims is the fundamental idea of employing a neutral intermediary to ensure that parties to an exchange can honor a proposed transaction, to consummate the exchange simultaneously to minimize the risk that one party does not gain the fruits of the exchange, and then irrevocably to direct the parties, or their value holders, to adjust their accounts or records to reflect the concluded transaction." 768 F. Supp. 2d at 243–44 (JA37).

Claim 33 of the '479 patent, the representative method claim, recites "[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." JA386, 65:23–50. This concept will be familiar to anyone who has used an escrow agent as an intermediary in a house sale. For purposes of its Section 101 analysis, the district court "assume[d]" that the method claims "recite electronic implementation and a computer or an analogous electronic device." 768 F. Supp. 2d. at 236 (JA25).

The asserted method claims are not patent-eligible. They recite abstract ideas of using an intermediary to mitigate settlement risk, with no "inventive concept" as required by *Mayo*. And any computer implementation is neither "integral" nor "specialized" as this Court required in *Bancorp*. As the district court recognized, ruling the method claims patent-eligible could "effectively preempt the use of an electronic intermediary to guarantee exchanges across an incredible swath of the economic sector," touching an "infinite array" of potential types of financial exchanges. 768 F. Supp. 2d at 246 (JA42). They do not clear the Section 101 threshold.[4]

[4] CLS adopts and incorporates by reference the arguments made in its panel-stage brief (at 24–40) on the patent-ineligibility of the asserted method claims.

1. The Patents Recite Abstract Ideas With No Inventive Concept

The claims in *Bilski* explained a basic concept of hedging in three steps, expressed it in a formula, and applied it to commodities and energy markets. The Supreme Court had no difficulty in concluding that those claims were drawn to patent-ineligible abstract ideas. Hedging, the Court observed, is a "fundamental economic practice long prevalent in our system of commerce and taught in any introductory finance class," such that claims "describing" the concept and "reduc[ing]" it to a formula were not patentable. Nor were the claims that limited the concept to the energy market or instructed the use of "well known" techniques to help accomplish the method eligible, because "limiting an abstract idea to one field of use or adding token postsolution components d[oes] not make the concept patentable." 130 S. Ct. at 3231.

The method claims in this case, like the claims in *Bilski*, simply break down a fundamental economic principle into steps. The concept of mitigating settlement risk through intermediation, like the concept of hedging in *Bilski*, is fundamental and ancient, and the representative method claim merely "describ[es]" it.

Financial intermediation involves a middleman that ensures that both parties to a financial transaction discharge their obligations by conditioning the execution of the transaction on the condition of mutual performance. Like the concept of hedging in *Bilski*, using an intermediary to reduce settlement risk is a "fundamental

economic practice." It plays a role "in virtually all economies except emerging economies which are at a very early stage." Allen & Santomero, *supra*, at 1463; *see* K. Sasidharan & Alex K. Mathews, *Financial Services and System* 8 (2008) (describing "[t]he fundamental reason for the existence of financial intermediaries in the modern economy"). And it is a timeworn practice: "private clearing and settlement arrangements" have existed since at least "the nineteenth and early twentieth centuries." Randall S. Kroszner, *Commentary*, *Fed. Reserve Bank of St. Louis Rev.*, May/June 1998 at 117, 119; *see* Edward J. Green, *Clearing and Settling Financial Transactions, Circa 2000* 12 (2000) (use of a clearinghouse that holds collateral in escrow is one of the "classic examples of general risk-management technique"); *see also* Peter Temin, *Financial Intermediation in the Early Roman Empire* (MIT Dep't of Econ., Working Paper No. 02-39, 2002), *available at* http://ssrn.com/abstract=348103 (comparing history of financial intermediation in ancient times to modern practices).

This economic concept is so fundamental that it appears in Black's Law Dictionary. The concept of "escrow," this dictionary explains, includes "property delivered by a promisor to a third party to be held by the third party . . . until the occurrence of a condition, at which time the third party is to hand over the . . . property to the promisee." Black's Law Dictionary 624 (9th ed. 2009). This concept of

"escrow" can be traced all the way back to the sixteenth century. *See* Oxford English Dictionary (2d ed. 1989) (listing 1598 as first known literary usage).

That the representative method claim asserted here recites an ineligible abstract idea is best demonstrated by comparison to the ineligible claims from *Bilski* and *Bancorp*. No coherent line can be drawn to distinguish this case from those, as comparing the claim language clearly establishes:

Bilski	*CLS*	*Bancorp*
"(a) initiating a series of transactions between said commodity provider and consumers of said commodity wherein said consumers purchase said commodity at a fixed rate based upon historical averages, said fixed rate corresponding to a risk position of said consumers; (b) identifying market participants for said commodity having a counter-risk position to said consumers; and (c) initiating a series of transactions between said commodity provider and said market participants at a second fixed rate such that said series of market participant transactions balances the risk position of said series of consumer transactions."	"(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 institution; (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 [sic] 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 one 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 variant obligations placed on the exchange institutions."	"generating a life insurance policy including a stable value protected investment with an initial value based on a value of underlying securities; calculating fee units for members of a management group which manage the life insurance policy; calculating surrender value protected investment credits for the life insurance policy; determining an investment value and a value of the underlying securities for the current day; calculating a policy value and a policy unit value for the current day; storing the policy unit value for the current day; and one of the steps of: removing the fee units for members of the management group which manage the life insurance policy, and accumulating fee units on behalf of the management group."

To further analyze whether the method claims here contain an "inventive concept" that limits their preclusive scope, or instead merely recite "[w]ell-understood, routine, conventional activity," the Supreme Court instructs that the patent claims must be analyzed step-by-step for each step of the claimed method and then all of the steps as a whole. *See Mayo*, 132 S. Ct. at 1294; *Bilski*, 130 S. Ct. at 3231; *Morse*, 56 U.S. (15 How.) at 111–13. Performing such an analysis reveals that Alice's method claims include no "inventive concept." Rather, they simply recite an abstract idea and effectively "add[] the words 'apply it.'" *Mayo*, 132 S. Ct. at 1294. Thus, they would unduly foreclose future innovation relating to the abstract idea.

The first step of the representative method claim involves creating credit and debit records for the counterparties to a transaction. Accountants have long created records to keep track of counterparties' accounts in intermediated trading; this is basic bookkeeping. *See* Richard Brown, *A History of Accounting and Accountants* 93 (1905). Thus, the "creating" step does not add an "inventive concept" to the claimed method. *Cf. Mayo*, 132 S. Ct. at 1297 ("administering" step not inventive because doctors had performed it "long before anyone asserted these claims").

The second step of the representative method claim fares no better. It involves obtaining the values for the previously created accounts in order to set the stage for the subsequent manipulations. This step involves ordinary communica-

tion with banks to establish the "inputs" for the accounts. There is nothing inventive about establishing an opening balance; every financial account requires a starting place from which subsequent adjustments are made. *Cf. Bilski*, 130 S. Ct. at 3231 (claim not inventive because establishing "inputs" for equation involved "well-known" techniques).

The third step of the claimed method involves adjusting the balances of the previously created accounts to reflect trading activity. This "adjusting" step, too, does not add an "inventive concept." Bankers, brokers, accountants, shopkeepers, and others who maintain books of account—including individuals who balance their checking accounts—routinely adjust balances over time to reflect transaction activity. *See* Mackay, *supra*, at 98. There is nothing inventive in this step. *Cf. Mayo*, 132 S. Ct. at 1298 ("determining" step not inventive because doctors "routinely measured" the relevant metabolites).

The fourth step of the representative method claim involves instructing payment transfers when both parties have performed. Other than the intermediated trading concept itself, this "instructing" step includes nothing but communicative activity. But that is merely "routine, well-understood" activity, as will be apparent to anyone who has wired money, traded stocks online, or even transferred funds from one account to another by telephone. *See Dealertrack*, 674 F.3d at 1334 (re-

jecting as ineligible computer-aided process involving communication of data). The "instructing step" thus does not add an "inventive concept."

The step-by-step analysis of the representative method claim in this case demonstrates that none of the four recited steps add anything inventive to the abstract idea of mitigating settlement risk through intermediation in the claim. Considering the steps as an "ordered combination," as required by *Mayo*, also "adds nothing . . . that is not already present when the steps are considered separately." 132 S. Ct. at 1298. That is because, as with the method in *Mayo*, "[a]nyone who wants to make use of these [financial intermediation] laws" must first create accounts, next obtain values for those accounts, then adjust the accounts for transactions, and finally command payment when appropriate. *Id.* Thus, "the combination amounts to nothing significantly more than an instruction to [professionals] to apply the applicable laws [of economics] when [conducting their financial intermediation]." *Id.* The claim, in other words, does exactly what the Supreme Court has forbidden: it merely recites an abstract idea and tells the reader to "apply it." *Id.*

Alice previously has argued that the representative method claim contains something inventive because it recites the use of "shadow" accounts. Alice Reply Br. 2. This is a red herring. A "shadow" account is merely a ledger entry that can be created on paper. *See* 685 F.3d at 1358 (Prost, J., dissenting).

Indeed, many financial transactions have long relied on such special purpose accounts. The finance industry has long harnessed the power of trading derivatives, that is, trading securities that are not the actual property (*e.g.*, stock or commodity) but are contracts involving that property. Brian A. Eales & Moorad Choudhry, *Derivative Instruments* 1 (2003). When parties trade these contracts, they do not trade the actual property. *See* Mark Rubinstein, *Rubinstein on Derivatives* 1–2 (1999). Instead they keep a notional or "shadow" account of that property on their books. *See id.* at 394 (explaining that derivative practices include use of "notional" accounts). The hedging concept in *Bilski* relied on this type of notional accounting: the parties that would hedge using the *Bilski* method would not literally exchange the underlying commodities, but rather bookkeeping entries for those commodities. *See In re Bilski*, 545 F.3d at 950 (describing how claims rely on an "intermediary" and do not require transfer of "actual commodities").

Subject matter patentability, however, should not turn on the "draftsman's art." *Mayo*, 132 S. Ct. at 1294; *Flook*, 437 U.S. at 593. Using a non-standard term ("shadow") to describe a well-understood and conventionally employed concept cannot render an unpatentable idea patentable. *See Flook*, 437 U.S. at 586 (in rejecting "method for updating alarm limits," observing that "[a]n 'alarm limit' is a number"). The hedging concept in *Bilski*, or the diagnostic method in *Mayo*, were

not patent-eligible regardless of the labels attached to them or the individual steps; so too with the intermediation concept at the heart of these method claims.

Dependent claim 34 of the '479 patent does not add an "inventive concept" to the method in the representative method claim either. That claim adds merely that the "instructing" step in claim 33 be based on "netted" transactions. JA386 at 65:23–54. The concept of "netting"—under which, as a general matter, multiple positive and negative values are added to arrive at one value—does not add anything inventive to the claim because "netting" is an ancient abstract idea. *E.g.*, Charles M. Khan et al., *An Introduction to Payments Economics* 15 (2006) ("Netting is an ancient method of payment that is still widely used today"); Green, *supra*, at 12; Charles M. Khan et al., *Settlement Risk Under Gross and Net Settlement* 1 (1999) (netting is a "basic insight"). Anyone who has traded in a used car while at the same time purchasing a new car, paying the net purchase price, is familiar with this concept. There is nothing in the claim other than this principle. Accordingly, claim 34 of the '479 patent recites an abstract idea without an inventive concept.

2. The Claimed Computer Is Neither Integral Nor Specialized

The panel majority identified no "inventive concept" within the meaning of *Mayo* in Alice's asserted method claims. Instead, the panel majority here held that Alice's patents passed the Section 101 threshold merely because Alice's computer

would play a "significant part" in the execution of the steps of the method. 685 F.3d at 1355. Such use of a computer, however, would not have saved the claims in *Bilski* or *Mayo*, and should not rescue the abstract claims here either. It is without question that *Bilski*'s hedging method would have run faster and more efficiently on a computer, thus meaning that the computer would play a significant part in the concept. Nor would use of a computer in *Mayo*, which would have again improved the speed and accuracy of the process, shaped the outcome of the patentability determination.

"At its most basic," a "computer is an automatic electronic device for performing mathematical or logical operations." *Bancorp*, 687 F.3d at 1277 (internal quotation marks omitted). "A digital computer . . . operates on data expressed in digits, solving a problem by doing arithmetic as a person would do it by head and hand." *Benson*, 409 U.S. at 65. In the method in *Bilski*, a computer could have been used for the complex mathematical calculations involved with assessing various elements of risk. In the representative method in this case, the district court assumed a computer would be used for mathematical calculations involving recordkeeping for accounts and automatic communications regarding those accounts.

The computer in Alice's representative method claim does not present an "inventive concept" because that computer is neither integral nor specialized under

this Court's *Bancorp* approach. The only role played by a computer in carrying out this method is performing calculations more quickly or efficiently than a person could using a pencil and paper or abacus; such participation is not "integral" to the method. Moreover, the computing tasks required here, as in *Bancorp*, are carried out by general-purpose, off-the-shelf computer components and programming; the claims involve no "improvements to computer technologies." This is true for each of the method's steps considered separately and for the steps considered as a whole.

Alice has previously argued that this Court "expressly held [*Bancorp*] to be consistent with the majority's decision here." Opp. to Pet. for Reh'g 1 (citing 687 F.3d at 1280-81). What the *Bancorp* Court actually said was that "our conclusion is not inconsistent with *CLS*," because "we explained that the asserted claims in *CLS* were patent-eligible because it [wa]s difficult to conclude that the computer limitations . . . d[id] not play a *significant part* in the performance of the invention or that the claims [we]re not limited to a *very specific application* of the [inventive] concept." 687 F.3d at 1280 (alterations in *Bancorp*).

The *Bancorp* Court was merely summarizing the majority's conclusion in this case—the conclusion that this Court has now agreed to review *en banc*. The *Bancorp* Court did not hold that the claims asserted here would be patent-eligible under the approach announced and applied in *Bancorp* itself, and they clearly

would not be. Nor did the *Bancorp* Court so much as suggest that the *standard* for patent-eligibility applied in this case was correct. Rather, the *Bancorp* Court tried to reconcile the outcomes in the two cases in light of this Court's rule that one panel may not overrule a prior panel decision. *Tate Access Floors, Inc. v. Interface Architectural Res., Inc.*, 279 F.3d 1357, 1366 (Fed. Cir. 2002). Now that this case is before the *en banc* Court, that rule is no longer applicable.

It is not sufficient for Section 101 purposes that the application is "specific," that is, limited to a particular area. The Supreme Court in *Mayo* made this abundantly clear. 132 S. Ct. at 1303 (rejecting argument that "because the particular laws of nature that its patent claims embody are narrow and specific, the patents should be upheld"). Indeed, *Bilski* involved a "specific" application of the concept of hedging—in the energy markets. 130 S. Ct. at 3231. In any event, the patents here are hardly "specific": the specification discloses dozens of potential uses, and as the district court found the possibilities are "infinite." *E.g.*, JA837 at 3:22–23; 5:40–48; 768 F. Supp. 2d at 246 (JA42). Monopolizing all uses of intermediated settlement is precisely the problem that the judicial exceptions to Section 101 are designed to avoid.

Nor is it sufficient that a computer play a "significant part" in the process. The computers in both *Benson* and *Flook* played a "significant part" but those claims failed. Nor is it true that the computer plays a "significant part" in the as-

serted claims; it may make the process faster or more accurate, but it is not necessary or integral. *Cf. CyberSource*, 654 F.3d at 1370 (rejecting method claim that "does not require the method to be performed by a particular machine, or even a machine at all"). On the contrary, subjecting Alice's method to the analysis outlined in *Bancorp* leads to the result that the asserted computer-implemented claims are patent-ineligible. This is true for each of the method's steps considered separately and for the steps considered as a whole.

The "creating" step in the representative method claim could deploy a computer for keeping records. A computer is not "integral" to this step because, though a computer can operate databases "more quickly" or "more efficiently" than a person, a person can do it "manually" "by pencil and paper." *See Flook*, 437 U.S. at 586; *Bancorp*, 687 F.3d at 1278–79. Nor is the participation of the computer specialized to this task; the method could be employed by keeping paper-based records and, even on a computer, could be employed using generic computer storage systems for record storage.

The "obtaining" step in the representative method claim could deploy a computer to automate communications functions to obtain values for the previously-created accounts. A person can perform this function, too, "manually" without use of a computer. *See Bancorp*, 687 F.3d at 1278–79. The computer is thus not integral. Nor is the computer participation in this step specialized. The claim does

not require a particular method of communication via computer, instead leaving it to the professional to use "whatever process [he] wishes to use." *Mayo*, 132 S. Ct. at 1297.

The "adjusting" step also does not entail computer participation that is integral or specialized. That step could deploy a computer to automate calculations. This is the very type of computer participation rejected as insufficient in *Benson* and *Flook* by the Supreme Court and by this Court in *Bancorp*. In *Benson*, the computer was used to do the mathematical conversion from decimal to binary numbers. That was not an integral use of a computer, because those calculations could "also be performed without a computer," albeit less quickly. 409 U.S. at 67. In *Flook*, the computer was used for "computerized calculations producing automatic adjustments." 437 U.S. at 586. Though a computer was more efficient at these calculations, it was not integral because they could "be made by pencil and paper." *Id.* This participation of a computer in these calculations is not specialized; it rather involves a computer's "most basic functions, the performance of repetitive calculations." *See Bancorp*, 687 F.3d at 1278–79. The claims do not specify a particular type of software or improvement to computer technology for the calculations.

The "instructing" step could deploy a computer for communications and calculations. However, this participation of a computer is neither integral nor special-

ized in this step for the same reasons that the participation of a computer in communications in the "obtaining" step and in calculations in the "adjusting" step is not integral or specialized. *See Flook*, 437 U.S. at 586; *Bancorp*, 687 F.3d at 1278–79.

In addition, the use of a computer for the combination of off-the-shelf computing functions does not add anything not in the individual steps. Using a computer for the combination of recordkeeping, calculations, and communications is conventional, not inventive. *See Bancorp*, 687 F.3d at 1278–79.

Any computer implementation, therefore, does not add an "inventive concept" to the abstract idea of financial intermediation in the representative method claim. Accordingly, claims 33 and 34 of the '479 patent are not patent-eligible.

The claims of the '510 patent add only the element of "electronically adjusting" records or accounts. JA546, 64:11–12 (independent claim 1); JA547, 65:25–26 (independent claim 27); JA547, 66:63–64 (independent claim 61); JA548, 67:24–25 (independent claim 65); JA548, 68:7 (independent claim 68). Alice has already conceded that these claims are not patentably distinct from the claims of the '479 patent. And they, too, do not add an "inventive concept." The phrase "electronically adjusting" simply specifies the use of a database, which, as discussed above, is a conventional general purpose computer function. Such use is not an "improvement to computer technologies." *See Bancorp*, 687 F.3d at 1279.

Accordingly, both the representative method claim and the other method claims are patent-ineligible.

II. Patent-Eligibility Turns On The Substance Of The Claimed Invention, Not The Form In Which Claims Are Drafted

The Court's second question is: "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?"

Patent eligibility does not turn on the statutory class of invention described in the claim language. All of the statutory classes set forth in Section 101—*i.e.*, a "process, machine, manufacture, or composition of matter"—are subject to the judicial exceptions to patent-eligibility. *See*, *e.g.*, *Mayo*, 132 S. Ct. at 1293–94 (relying on precedent concerning claims directed to machines, manufactures, compositions of matter and processes all of which were scrutinized for patent eligibility). In undertaking that analysis, the court must look to the underlying invention to determine whether Section 101 has been satisfied.

Patent applicants commonly describe their inventions using language designed to invoke different statutory classes. *See* Robert C. Faber, *Faber On Mechanics of Patent Claim Drafting* 10-6 (6th ed. 2012) (instructing patent prosecution practitioners to "use different [statutory] classes of claims" in the section titled "How to Write the Broad Claim"). Sometimes this is because there are related but

different inventions that fall into different classes, for example, a claim to a pharmaceutical compound and a method of treatment involving a particular dosing regimen of that compound in combination with other medications. But that is not always the case. For instance, an algorithm for performing a business transaction could be drafted as a method, system or storage medium containing instructions for performing precisely the same algorithm. Typically, patent applicants invoke all three forms, just as Alice has done in its patents. In instances where the claims are drawn to essentially the same underlying concept, the Section 101 approach should be similar for each statutory class.

Here, the Section 101 analysis is equivalent for all of Alice's claims. Alice's system and storage medium claims add nothing of substance to its method claims; they all are drawn to financial intermediation ideas at least as abstract as that found ineligible in *Bilski* and therefore they all fail to pass the Section 101 threshold for the same reason.

A. System And Media Claims That Implement An Abstract Method Must Also Disclose An Inventive Concept

This Court has repeatedly, and correctly, recognized that "[r]egardless of what statutory category ('process, machine, manufacture, or composition of matter,' 35 U.S.C. § 101) a claim's language is crafted to literally invoke, we look to the underlying invention for patent-eligibility purposes." *CyberSource*, 654 F.3d at

1374; *Bancorp*, 687 F.3d at 1276–77. In the context of these patents, this well-established proposition adequately answers the *en banc* Court's second question.

Accordingly, if claims are directed to essentially the same abstract idea, they fail to achieve patent eligibility regardless of whether they take the form of method, system or storage medium claims. To hold otherwise would "exalt form over substance." *In re Abele*, 684 F.2d 902, 909 (C.C.P.A. 1982). Looking to the form of the claim rather than the substance of the invention would encourage an end-run on the patent-ineligibility of abstract ideas. This is because, as Judge Prost explained, "[a]ny method claim that uses a general purpose computer may also be drafted as a system (containing computers) that carries out the method." 685 F.3d at 1360; *see also Quanta*, 128 S. Ct. at 2117–18 ("Patentees seeking to avoid patent exhaustion could simply draft their patent claims to describe a method rather than an apparatus"); *In re Maucorps*, 609 F.2d 481, 485 (C.C.P.A. 1979) ("Labels are not determinative in § 101 inquiries . . . because the form of the claims is often an exercise in drafting") (internal quotation marks omitted).

The Supreme Court has long warned that a "competent draftsman" should not be able to circumvent the rigors of Section 101 through non-substantive changes to the claim language. *See Flook*, 437 U.S. at 590 ("The concept of patentable subject matter under § 101 is not 'like a nose of wax which may be turned and twisted in any direction . . . .'" (quoting *White v. Dunbar*, 119 U.S. 47, 51 (1886))).

But that is exactly the result if a simple switch in statutory class could render an otherwise unpatentable method eligible for patenting.

For example, the "fundamental economic practice" in *Bilski* could easily be drafted as a system claim comprising the components of a general purpose computer. *Bilski*, 130 S. Ct. at 3231 (internal quotation marks omitted). But doing so adds nothing to the method, other than limit its application to a particular technological environment, *i.e.*, a general purpose computer, which is not enough to make it patent-eligible. *See Bilski*, 130 S. Ct. at 3230 ("*Flook* stands for the proposition that the prohibition against patenting abstract ideas 'cannot be circumvented by attempting to limit the use of the formula to a particular technological environment' or adding 'insignificant postsolution activity'" (quoting *Diehr*, 450 U.S. at 191)). In such circumstances, the system claim (or similarly worded storage medium claim) should be treated no differently than the method for assessing its patent eligibility under Section 101.

This approach is consistent with the Supreme Court's Section 101 precedent, which draws no formalistic distinction based on the statutory category of the claims. *See, e.g., Mayo*, 132 S. Ct. at 1293–94 (relying on Section 101 precedent concerning claims drawn to all different statutory classes and explaining that "[t]hose cases warn us against interpreting patent statutes in ways that make patent eligibility 'depend simply on the draftsman's art'") (citation omitted). Quite the

opposite, in *Benson* and again in *Diehr*, the Supreme Court expressly held that "the same principle," that is, that a natural phenomenon, mental process or abstract idea is not patentable, applies to both "product" and "process" claims. *Benson*, 409 U.S. at 67–68; *Diehr*, 450 U.S. at 188 n.11. This is because the danger of allowing a monopoly over such "basic tools of scientific and technological work" (*Benson*, 409 U.S. at 67) exists no matter if the claim takes the form of a method, system or storage medium.

For all these reasons, this Court's predecessor held that method and apparatus claims should be examined using the same approach for purposes of Section 101. *Abele*, 684 F.2d at 909. There, the court held that a claim to a "method of displaying data" by "calculating the difference" between two measurements and "displaying the value" sought to claim an abstract idea and was thus not eligible for patenting. *Id.* at 908. The applicant's claim to an "[a]pparatus for displaying data" comprising a "means for calculating the differences" and "means for displaying the value of said differences" was treated the same as the method claim for purposes of Section 101. *Id.* at 909. To do otherwise would "exalt form over substance since the [apparatus] claim is really to [a] method or series of functions itself." *Id.*

CyberSource followed *Abele,* applying the same approach to storage medium claims. 654 F.3d at 1375. As the Court recognized, "*Abele* made clear that the

basic character of a process claim drawn to an abstract idea is *not* changed by claiming only its performance by computers, or by claiming the process embodied in program instructions on a computer readable medium." *Id.* (emphasis added). There may be circumstances in which a system or storage medium claim is "'truly drawn'" to a specific apparatus or set of instructions so that it warrants a separate Section 101 analysis. *See id.* (quoting *Abele*, 684 F.2d at 909). But merely reciting components of a general purpose computer, or instructions on a storage medium, that perform the same steps found in the method claim is not enough. In such instances, the claims stand or fall together for purposes of Section 101.

B. The System And Media Claims Asserted Here Are Not Patent-Eligible

The system and media claims here, like the method claims, are not patent-eligible. Those claims add nothing but formulaic "data processor" and "computer" recitations in the computer system claims and "computer readable medium" and "instruction" recitations for the media claims. These limitations represent not an inventive concept, but merely the "draftsman's art" of rewriting a computer-implemented method claim as a system or media claim. *Mayo*, 132 S. Ct. at 1294 (internal quotation marks omitted).[5]

[5] CLS adopts and incorporates by reference the arguments made in its panel-stage brief (at 41–58) on the patent-ineligibility of the asserted system and media claims.

Indeed, the progression of the patents indicates as much: the '479 patent method claims do not mention a computer, the '510 patent claims recite "electronic adjustment," the '720 patent system claims recite a computer "configured" to perform the method, and finally the '375 patent media claims involve "computer readable program code" for the same method. During prosecution, Alice did not try to argue that the claims of its latter patents were "patentably distinct" from those in the '479 patent. *See* MPEP § 804 (8th ed. Rev. 5, Aug. 2006). Instead, it chose to enter terminal disclaimers for all three of its latter patents. JA909, 916, 918.

As both the majority and the dissent in the panel recognized, the method, system, and media claims here must stand or fall together. *See CLS*, 685 F.3d at 1353–54 (treating "the method, system, and media claims" as each requiring computer implementation and so applying the same "patent eligibility analysis" to all); *id.* at 1360 (Prost, J., dissenting) (finding a "close similarity between the representative system and method claims in this case" and concluding that all are patent-ineligible).

Alice's system claims merely rewrite the method claims into system claims by reciting "[a] data processing system" that comprises "a data storage unit" with information about the two parties' accounts and "a computer" that is "configured" to perform the steps described in the method claims. *See*, *e.g.*, JA706, 65:42–70:61, 868, 65:2–68:4 (claims 1–84 of '720 patent and claims 1–38 of the '375 pa-

tent). Allowing addition of such formulaic and generic terms does not transform the system claims here into patent-eligible subject matter. *See Diehr*, 450 U.S. at 185; *Dealertrack*, 674 F.3d at 1334.

Further, whereas claims 1–13 add a "first party device" and claims 14–37 also recite "a communications controller," these elements do not reflect any "inventive concept" and instead are merely additional generic structures. *See*, *e.g.*, JA868, 65:2–68:4. While Alice attempts to extrapolate the generic "communications controller" into what it asserts to be hardware "that allows communications over a wide-area computer network," that deviates from the plain language of the claims and such a claim interpretation is not part of the district court record. Alice Panel Br. 10; JA113–17, 961. Even if Alice's attempt to read more into this claim element were accepted, these claims would still fail because they merely recite a well-known communications element. Alice does not assert that the "communications controller" is part of the inventive concept here. This limitation therefore adds nothing absent from the other claims. In addition, "the prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of the formula to a particular technological environment." *Bilski*, 130 S. Ct. at 3230 (internal quotation marks omitted). Adding a generically described device found on perhaps every computer manufactured today does not render patent-eligible a system claim drawn to an abstract idea.

The media claims (known as *Beauregard* claims) merely recite the same non-eligible method with the addition of the phrasing—"[a] computer program product comprising a computer readable storage medium" and "program code for causing a computer" to perform the steps of the non-eligible methods. *See*, *e.g.*, JA869, 68:5–56 (claims 39–47 of the '375 patent).

The media claims recite the same requirement as the system claims—a stored program capable of performing the steps of the method claims. Just as the data storage elements of the system claims add nothing to patent-eligibility, neither do the media claims. *See CyberSource*, 654 F.3d at 1374 (media claims are not eligible if underlying method claims are not eligible).

While the media claims also recite a program that "allow[s] viewing" of at least some "information" relating to the settlement of the parties' exchange, the ability to display information is conventional. *See Abele*, 684 F.2d at 909. Nearly all computers have a display device, or can attach to one, and nearly all software allows the viewing of information on such a device.

Further, neither the media claims nor the system claims can be saved by the fact that they claim physical things. Neither are "truly drawn to a specific apparatus," but rather involve generic "apparatuses capable of performing the identical functions." *CyberSource*, 654 F.3d at 1374 (alteration omitted). For purposes of the abstract idea exception to patent eligibility, the system and media claims in Al-

ice's patents are materially identical to the ineligible method claims. In the circumstances of this case, all are equally ineligible for patent protection.

* * *

The district court correctly recognized that the method claims asserted by Alice are not patent-eligible, and that the system and media claims add nothing pertinent to the Section 101 analysis. The patents here attempt to monopolize a basic economic principle—the use of an intermediary to mitigate settlement risk—and they were properly rejected by the district court under *Bilski*. The Supreme Court's recent decision in *Mayo* confirms the correctness of that decision, which should be affirmed by the *en banc* Court.

CONCLUSION

The judgment of the district court should be affirmed.

Respectfully submitted.

Date: November 30, 2012

Mark A. Perry
Principal Attorney
Brian M. Buroker
Michael F. Murray
Alexander N. Harris
GIBSON, DUNN & CRUTCHER LLP
1050 Connecticut Avenue, N.W.
Washington, D.C. 20036
Telephone: (202) 955-8500
Facsimile: (202) 530-9696

Michael A. Valek
GIBSON, DUNN & CRUTCHER LLP
2100 McKinney Avenue
Suite 1100
Dallas, TX 75201

Attorneys for Plaintiff-Appellee CLS Bank International and Counterclaim-Defendant Appellee CLS Services Ltd.

CERTIFICATE OF SERVICE

I hereby certify that on November 30, 2012, I served two copies of the foregoing Principal *En Banc* Brief for CLS Bank International and CLS Services Ltd. via UPS for next-day delivery and email on the principal counsel for each party separately represented as listed below.

Bruce R. Genderson
David Milton Krinsky
WILLIAMS & CONNOLLY LLP
725 12th Street, N.W.
Washington, D.C. 20005
(202) 434-5000

Counsel for Alice Corporation Pty. Ltd.

John D. Vandenberg
KLARQUIST SPARKMAN, LLP
121 SW Salmon Street
Suite 1600
Portland, OR 97204
(503) 595-5300

Counsel for Amici Curiae British Airways Plc, eHarmony, Inc., Intuit Inc., LinkedIn Corp., SAP America, Inc., and Travelocity.com LP

Daryl Joseffer
KING & SPALDING LLP
1700 Pennsylvania Avenue, N.W.
Washington, D.C. 20006
(202) 737-0500

Counsel for Amici Curiae Google Inc., Hewlett-Packard Co., Red Hat, Inc., and Twitter Inc.

Stephen R. Stites
184 Eagle Rock Lane
Bluemont, VA 20135
(540) 554-2442

Counsel for Amicus Curiae
Stephen R. Stites

Julie P. Samuels
ELECTRONIC FRONTIER FOUNDATION
454 Shotwell Street
San Francisco, CA 94110
(415) 436-9333

Counsel for Amici Curiae
Electronic Frontier Foundation
and Public Knowledge

Erica Oleszczuk

CERTIFICATE OF COMPLIANCE

In accordance with Federal Rule of Appellate Procedure 32(a)(7)(C), the undersigned certifies that this brief complies with the applicable type-volume limitations. Exclusive of the portions exempted by Federal Rule of Appellate Procedure 32(a)(7)(B)(iii) and Federal Circuit Rule 32(b), this brief contains 13,810 words. This certificate was prepared in reliance on the word count of the word-processing system (Microsoft Word 2010) used to prepare the brief.

Mark A. Perry

Claim 39 Of The '375 Patent

A computer program product comprising a computer readable storage medium having computer readable program code embodied in the medium for use by a party to exchange an obligation between a first party and a second party, the computer program product comprising:

program code for causing a computer to send a transaction from said first party relating to an exchange obligation arising from a currency exchange transaction between said first party and said second party; and

program code for causing a computer to allow viewing of information relating to processing, by a supervisory institution, of said exchange obligation, wherein said processing includes

(1) maintaining information about a first account for the first party, independent from a second account maintained by a first exchange institution, and information about a third account for the second party, independent from a fourth account maintained by a second exchange institution;

(2) electronically adjusting 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

(3) generating 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. (JA869, 68:5–35)

Claim 1 Of The '720 Patent

A data processing system to enable the exchange of an obligation between parties, the system comprising:

a data storage unit having stored therein information about a shadow credit record and shadow debit record for a party, independent from a credit record and debit record maintained by an exchange institution; and

a computer, coupled to said data storage unit, that is configured to (a) receive a transaction; (b) electronically adjust said shadow credit record and/or said shadow debit record in order to effect an exchange obligation arising from said transaction, allowing only those transactions that do not result in a value of said shadow debit record being less than a value of said shadow credit record; and (c) generate an instruction to said exchange institution at the end of a period of time to adjust said credit record and/or said debit record in accordance with the adjustment of said shadow credit record and/or said shadow debit record, wherein said instruction being an irrevocable, time invariant obligation placed on said exchange institution. (JA706, 65:42–61)