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APPELLEE'S BRIEF

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.

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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:

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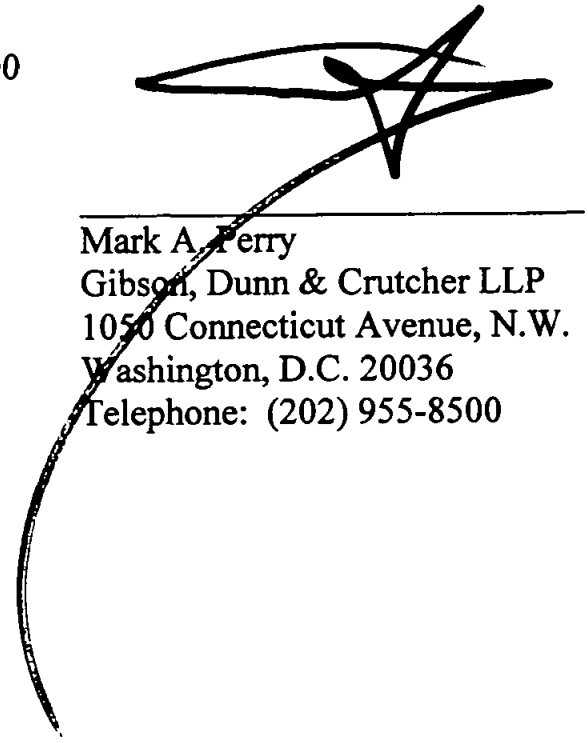

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STATEMENT OF RELATED CASES

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]

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[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]

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[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.

* * *

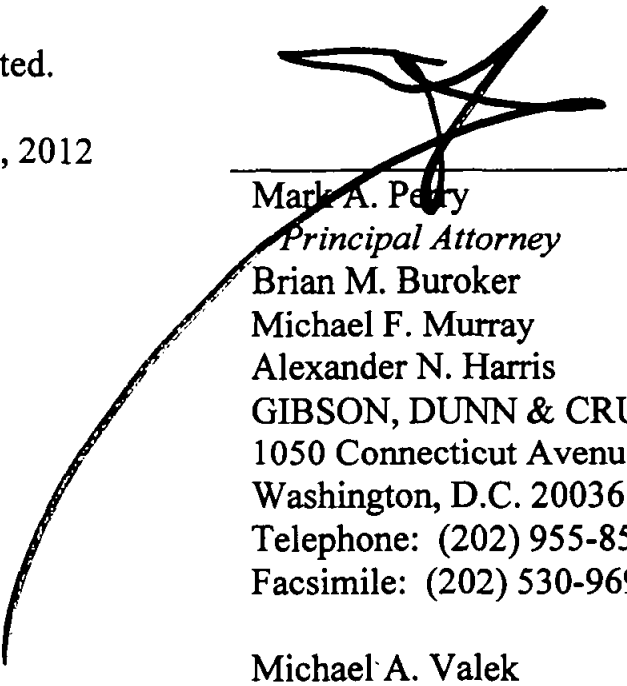
The district court correctly recognized that the method claims asserted by Alice are not patent-eligible, and that the system and media claims add nothing pertinent to the Section 101 analysis. The patents here attempt to monopolize a basic economic principle—the use of an intermediary to mitigate settlement 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



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ADDENDUM

TABLE OF CONTENTS

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

CLS BANK INTERNATIONAL,	)	
Plaintiff,	)	
v.	)	**Civil Action No. 07-974 (RMC)**
ALICE CORPORATION PTY. LTD.,	)	
Defendant.	)	

ORDER

For the reasons stated in the Memorandum Opinion filed simultaneously with this Order, it is hereby

ORDERED that plaintiff CLS Bank International's motion for summary judgment [Dkt. # 94] is **GRANTED**; and it is

FURTHER ORDERED that defendant Alice Corporation's cross-motion for partial summary judgment [Dkt. # 95] is **DENIED**; and it is

FURTHER ORDERED that this case is **DISMISSED** and closed.

This is a final appealable order. *See* Fed. R. App. P. 4(a).

SO ORDERED.

Date: March 9, 2011

/s/
ROSEMARY M. COLLYER
United States District Judge

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

CLS BANK INTERNATIONAL,	)	
	)	
Plaintiff,	)	
	)	
v.	)	**Civil Action No. 07-974 (RMC)**
	)	
ALICE CORPORATION PTY. LTD.,	)	
	)	
Defendant.	)	
	)	

MEMORANDUM OPINION

CLS Bank International moves for summary judgment, contending that all patent claims asserted by Alice Corporation Pty. Ltd. in this case are invalid under 35 U.S.C. § 101 for lack of patentable subject matter. Alice cross-moves for partial summary judgment, arguing that its asserted claims are directed to patent-eligible subject matter. Before the Court are claims 33 and 34 of U.S. Patent No. 5,970,479, and every claim of U.S. Patent No. 6,912,510; U.S. Patent No. 7,149,720; and U.S. Patent No. 7,725,375. For the reasons set out below, the Court finds each of the claims at issue to be directed to unpatentable subject matter and will grant summary judgment in full to CLS.

I. FACTS

A. The Patents

Alice is an Australian company that owns four United States patents; it asserts that CLS infringes these four patents. CLS is an "Edge Act Corporation," organized under Section 25A of the Federal Reserve Act, as amended, 12 U.S.C. § 611, and authorized by statute to engage in international banking activities. In response to Alice's charge of infringement, CLS challenges the

subject matter patentability of the asserted claims of the four patents. Alice's four patents at issue are: (1) U.S. Patent No. 7,149,720 ("'720 Patent"); (2) U.S. Patent No. 6,912,510 ("'510 Patent"); (3) U.S. Patent No. 5,970,479 ("'479 Patent"); and U.S. Patent No. 7,725,375 ("'375 Patent") (collectively the "Patents"). The relevant claims of the '479 and '510 Patents are directed to a method (i.e., process), while the claims of the '720 and '375 Patents are directed to a system or product. The Court has not construed the allegedly infringed claims.

In the early 1990's, the founder of Alice, Ian Shepherd, invented an "innovative trading platform" which entailed a "computerized system for the establishment, settlement, and administration of financial instruments, principally of basic derivatives, that would solve problems inherent in the way such trading had been done in the past." Alice Mem in Supp. of Mot. for Summ. J. & Opp'n [Dkts. ## 95, 96] 4 ("Alice Mem."). One aspect of the trading platform is "an automated method and system for eliminating counter-party risk when parties who were often unknown to each other and in different time zones wanted to exchange payments." *Id.* The "electronic settlement mechanism [] settled trades without the risk that one party would perform and the other would not." *Id.* Alice's expert, Paul Ginsberg, explains that the Patents "disclose and claim in various ways a novel computerized trading platform for exchanging obligations in which a trusted third party, running a computer system programmed in a specific way, settles parties' obligations so as to eliminate what is variously referred to as 'Herstatt,' 'counterparty,' or 'settlement' risk—the risk that only one party's obligation will be paid, leaving the other party without its principal." *Id.* 4–5 (citing Alice Mem., [Ex. 1] Ginsberg Decl. ¶¶ 23–24). "The trusted third party—a 'supervisory institution'—operates a data processing system that exchanges both parties' obligations or neither." *Id.* at 5.

Mr. Ginsberg elucidates the risk the Patents are intended to mitigate. "When obligations arise from a trade made between two parties, e.g., a trade of stock or a trade of foreign currency, typically, there is a gap in time between when the obligation arises and when the trade is 'settled.'" Ginsberg Decl. ¶ 21. "In a number of financial contexts, the process of exchanging obligations, or settlement, is separate from the process of entering into a contract to perform a trade." *Id.* Mr. Ginsberg provides the example of two banks that wish to exchange large sums of currency would normally enter into a binding agreement to make an enumerated exchange but would postpone the actual exchange until after the price is set and the agreement confirmed, which is typically a two day period. *Id.* ¶ 22. After two days, the two banks would "settle" the trade by both paying their predetermined amounts to the other bank. However, a risk exists that one bank might wire its money, but the second bank would fail to do the same; the loss possibly becoming permanent, for instance, if the second bank thereafter goes bankrupt or is shut down by regulators. *Id.* ¶ 23. The Patent claims at issue here seek to minimize this "settlement" risk that only one side of a trade would be fulfilled during the settlement process. *Id.* "Generally speaking, a trusted third party might operate a computer system that is configured in a particular way to exchange the parties' obligations, and by performing the particular electronic method using that computer system, can lessen settlement risk." *Id.* ¶ 24.

Therefore, Mr. Ginsberg reads the asserted claims of the four Patents to be "generally directed to methods or systems that help lessen settlement risk using a computer system." *Id.* Very broadly speaking, the process claims are directed to methods of exchanging financial obligations between parties while the system claims relate to data processing systems to implement the steps of exchanging obligations and the computer product claims enable a computer to send a transaction to

the system to be implemented and allow a user to view the steps of exchanging obligations being performed.

1. '479 Patent

The '479 Patent is entitled "Methods and Apparatus Relating to the Formulation and Trading of Risk Management Contracts." *See* CLS Mem. in Supp. of Mot. for Summ. J. [Dkt. # 94] ("CLS Mem."), [Ex. 1] '479 Patent. The application for the '479 Patent was filed on May 28, 1993, and the Patent issued on October 19, 1999. The '479 Patent, at large, allegedly "discloses a complex computer-based system and various electronic methods for formulating risk management contracts, trading the contracts, and exchanging the resulting obligations." Ginsberg Decl. ¶ 25. The specification discloses:

> The invention encompasses methods and apparatus enabling the management of risk relating to specified, yet unknown, future events by enabling entities (parties) to reduce their exposure to specified risks by constructing compensatory claim contract orders on yet-to-be-identified counter-parties, being contingent on the occurrence of the specified future events. The entities submit such orders to a 'system' which seeks to price and match the most appropriate counter-party, whereupon matched contracts are appropriately processed through to their maturity. Therefore, the invention enables parties to manage perceived risk in respect of known, yet non-predictable, possible future events.

'479 Patent, col. 3:29–42. The disclosure of the '479 Patent reveals an invention that, as a whole, appears to be directed to a seemingly complex trading platform which facilitates a wide array of parties to come together and enter into contracts to hedge against future risks of all sorts; the system allows parties to trade such contracts already entered into, the system manages contracts until maturity, and the system provides for the transfer or exchange of entitlements or payments once they arise.

Only claims 33 and 34 of the '479 Patent are at issue in this matter. These two claims are directed to a "method of exchanging obligations" between parties, and in their entirety, they claim:

> 33. 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;
>
> © 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.
>
> 34. The method as in claim 33, wherein the end-of-day instructions represent credits and debits netted throughout the day for each party in respect of all the transactions of that day.

'479 Patent, col. 65:23–54. Both claims recite a "shadow credit record," a "shadow debit record," and a "transaction." *See, e.g., id.* col. 65:27, 33 (Claim 33).

The methods in claims 33 and 34 relate to just one feature of the entire invention

disclosed in the '479 Patent, *see* Ginsberg Decl. ¶ 26; a concluding step of sorts, when contracted-for obligations become ripe and are exchanged. *See* '479 Patent, col. 5:61–63 (noting the invention "also encompasses apparatus and method dealing with the handling of contracts at maturity, and specifically the transfer of entitlement"). The '479 Patent was the first of the Patents to issue and the inventions disclosed by the '510, '720, and '375 Patents are continuations of the '479 Patent which, with only minor differences, share a common specification. *See* Ginsberg Decl. ¶ 25; Alice Mem. 4.

2. '510 Patent

The '510 Patent is entitled "Methods of Exchanging an Obligation." *See* CLS Mem., [Ex. 2] '510 Patent. The application for the '510 Patent was filed on May 9, 2000, and it issued on June 28, 2005. Each of the 75 claims of the '510 Patent is directed to a particular method of exchanging an obligation. For instance, claim 1 of the '510 Patent is directed to:

> 1. A method of exchanging an obligation between parties, wherein an exchange obligation is administered by a supervisory institution, and wherein at least one credit record and one debit record is maintained with an exchange institution, the method comprising:
>
> (a) maintaining a shadow credit record and a shadow debit record for a party to be held independently by the supervisory institution from the exchange institution;
>
> (b) for every transaction resulting in an exchange obligation, the supervisory institution electronically adjusting said shadow credit record and/or shadow debit record, 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
>
> © at the end of a period of time, the supervisory institution providing an instruction to the exchange institution to credit and/or debit in accordance with said adjustments of said

> allowed transactions, wherein said instruction being an irrevocable, time invariant obligation placed on the exchange institution.

'510 Patent, col. 64:2–21. Each of the five independent claims—claims 1, 27, 61, 65, and 68—of the '510 Patent calls for "electronically adjusting" records or accounts. *Id.* col. 64:11–12 (Claim 1); *id.* col. 65:25–26 (Claim 27); *id.* col. 66:63–64 (Claim 61); *id.* col. 67:24–25 (Claim 65); *id.* col. 68:7 (Claim 68).

An exchange of obligations, however defined, is the stated purpose of the methods claimed in the '510 Patent claims and claims 33 and 34 of the '479 Patent. Alice argues that claims 33 and 34 of the '479 Patent and every claim of the '510 Patent are implemented electronically using a computer coupled to a data storage method. *See* Ginsberg Decl. ¶¶ 28–43. CLS disputes that these methods directly or indirectly claim the use of a computer.

3. '720 Patent

The '720 Patent is entitled "Systems for Exchanging an Obligation." CLS Mem., [Ex. 3] '720 Patent. The application for the '720 Patent was filed on December 31, 2002, and it issued on December 12, 2006. Each claim of the '720 Patent, claims 1–84, is directed to a particular data processing system.

As a representative example, claim 1 of the '720 Patent is directed to:

> 1. 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) [sic] 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 © 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.

'720 Patent, col. 65:42–61. Each of the six independent claims—claims 1, 28, 60, 64, 68, and 80—of the '720 Patent recites "a data storage unit having stored therein" information about accounts or records, and a "computer, coupled to said data storage unit," that is "configured" to perform certain steps. *See id.* col. 65:42–61 (Claim 1); *id.* col. 67:1–18 (Claim 28); *id.* col. 68:33–53 (Claim 60); *id.* col. 68:62–66 & col. 69:1–11 (Claim 64); *id.* col. 69:20–42 (Claim 68); *id.* col. 70:20–37 (Claim 80).

4. '375 Patent

The '375 Patent is entitled "Systems and Computer Program Products for Exchanging an Obligation." CLS Mem., [Ex. 4] '375 Patent. The application leading to the '375 Patent was filed on June 27, 2005, and it issued on May 25, 2010. Claims 1–38 and 42–47 of the '375 Patent are directed to data processing systems which enable the exchange of an obligation. As with the '720 Patent claims, the three independent system claims—claims 1, 14, and 26—of the '375 Patent each requires "a data storage unit having stored therein" information about accounts or records, and a "computer, coupled to said data storage unit," that is "configured" to perform certain steps. *See* '375 Patent, col. 65:1–30 (Claim 1); *id.* col. 66:1–29 (Claim 14); *id.* col. 66:61–65 & col. 67:1–26

(Claim 26). The '375 Patent incorporates additional elements to the systems claimed in the '720 Patent. For instance, independent claim 1 further recites a "first party device," *id.* col. 65:4, claim 12 adds a "second party device," *id.* col. 65:62, and claim 14 recites a "communications controller." *Id.* col. 66:3.

Independent claim 39 and claims 40 and 41, which depend from claim 39,[1] of the '375 Patent are, on the other hand, directed to computer program products containing particular program code.

Claim 39 of the '375 Patent is directed to:

> 39. 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

[1] "[A] claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." 35 U.S.C. § 112. In other words, a dependent claim incorporates all of the limitations of the claim from which it "depends" and adds something new; thus, a dependent claim has a narrower scope than the claim from which it depends. Further, "the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005).

> 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.

Id. col. 68:5–35. Thus, each of the three product claims asserts a "computer readable storage medium" and "computer readable program code embodied in the medium." *Id.* col. 68:5–7 (Claim 39).

B. Procedural History

On May 24, 2007, CLS brought suit against Alice, seeking a declaratory judgment of non-infringement, patent invalidity, and patent unenforceability under the Patent Act, 35 U.S.C. § 1 *et seq.*, and the Declaratory Judgment Act, 28 U.S.C. §§ 2201, 2202. On August 16, 2007, Alice counter claimed that CLS was infringing three of its patents: the '479, '510, and '720 Patents. By agreement of the parties, initial discovery commenced on the question of (1) the operation of CLS Bank International, and (2) CLS Bank International's relationship with the CLS system.

In March 2009, CLS moved for summary judgment on the basis that (a) any patent infringement by CLS could not be said to be occurring within the United States and (b) Alice's claims lacked patentable subject matter eligibility. Alice opposed and cross-moved on both issues. As for extraterritoriality, on October 13, 2009, the Court denied CLS's motion, finding that U.S.

patent laws reached CLS's alleged infringing acts since CLS both "uses" its CLS Core System and "offers to sell, or sells" its methods within the United States. The Court also denied without prejudice Alice's cross-motion as premature since it sought a declaration of infringement. *See* Redacted Mem. Op. & Order [Dkt. ## 79, 78]. The Court then certified CLS's immediate appeal, but the United States Court of Appeals for the Federal Circuit denied CLS's request for an interlocutory appeal. *See* Federal Circuit Order [Dkt. # 87].

On June 16, 2009, the Court denied without prejudice the cross-motions on subject matter eligibility on the grounds that the Supreme Court had granted certiorari in *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008) (en banc) ("*Bilski I*"), upon which the parties had relied heavily in their briefing. The Court ordered re-filing for after the Supreme Court issued its decision. *See* Minute Entry Order 6/16/2009. After the Supreme Court issued *Bilski v. Kappos*, 130 S. Ct. 3218 (2010) ("*Bilski II*"), the parties renewed their briefs. Further, on August 5, 2010, the Court granted Alice leave to file an amended answer containing an additional counterclaim charging CLS with infringement of its '375 Patent, which had only been issued three months prior. Briefing on the question of whether Alice's claims at issue in this litigation are directed to patent eligible subject matter under the Patent Act is now ripe, after oral argument was held on January 14, 2011.

II. LEGAL STANDARD

A. Summary Judgment

Under Rule 56 of the Federal Rules of Civil Procedure, summary judgment shall be granted "if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgement as a matter of law." Fed. R. Civ. P. 56(a); *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247 (1986). Moreover, summary judgment is properly granted against a party who

"after adequate time for discovery and upon motion . . . fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial." *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986).

In ruling on a motion for summary judgment, the court must draw all justifiable inferences in the nonmoving party's favor and accept the nonmoving party's evidence as true. *Anderson*, 477 U.S. at 255. A nonmoving party, however, must establish more than "the mere existence of a scintilla of evidence" in support of its position. *Id.* at 252. In addition, the nonmoving party may not rely solely on allegations or conclusory statements. *Greene v. Dalton*, 164 F.3d 671, 675 (D.C. Cir. 1999). Rather, the nonmoving party must present specific facts that would enable a reasonable jury to find in its favor. *Id.* at 675. If the evidence "is merely colorable, or is not significantly probative, summary judgment may be granted." *Anderson*, 477 U.S. at 249-50 (citations omitted).

B. Subject Matter Eligibility under the Patent Act

Section 101 of the Patent Act delineates which inventions are patentable: "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. Congress created four independent categories of inventions or discoveries that are eligible for patent protection: processes, machines, manufactures, and compositions of matter. A "process" is defined in the Patent Act as a "process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material." *Id.* § 100(b). The Supreme Court has described a "process" as follows:

That a process may be patentable, irrespective of the particular form

> of the instrumentalities used, cannot be disputed. . . . A process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing. If new and useful, it is just as patentable as is a piece of machinery. In the language of the patent law, it is an art. The machinery pointed out as suitable to perform the process may or may not be new or patentable; whilst the process itself may be altogether new, and produce an entirely new result. The process requires that certain things should be done with certain substances, and in a certain order; but the tools to be used in doing this may be of secondary consequence.

Diamond v. Diehr, 450 U.S. 175, 182–83 (1981) (quoting *Cochrane v. Deener*, 94 U.S. 780, 787–88 (1877)).

By writing § 101 in expansive terms, "Congress plainly contemplated that the patent laws would be given wide scope." *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980). "Congress took this permissive approach to patent eligibility to ensure that ingenuity should receive a liberal encouragement." *Bilski II*, 130 S. Ct. at 3225 (internal quotation marks omitted); *In re Comiskey*, 554 F.3d 967, 977 (Fed. Cir. 2009) (recognizing that patentable subject matter under § 101 is "extremely broad"). In fact, the Supreme Court has "more than once cautioned that courts should not read into the patent laws limitations and conditions which the legislature has not expressed." *Bilski II*, 130 S. Ct. at 3226 (quoting *Diehr*, 450 U.S. at 182 (internal quotation marks omitted)).

The Supreme Court has enunciated three exceptions to the Patent Act's broad subject matter eligibility framework: "laws of nature, physical phenomena, and abstract ideas." *Bilski II*, 130 S. Ct. at 3225 (quoting *Chakrabarty*, 447 U.S. at 309). Thus, even if an invention appears to nominally claim subject matter that would be statutorily covered by the Patent Act, it will be denied patent protection if it falls into one of the "fundamental principles" exceptions, i.e. a law of nature, natural phenomena, and/or an abstract idea, which have been expounded by the Supreme Court in

Gottschalk v. Benson, 409 U.S. 63 (1972), *Parker v. Flook*, 437 U.S. 584 (1978), *Diehr*, 450 U.S. 175, and most recently *Bilski II*, 130 S. Ct. 3218. An underlying reason for these exceptions is that "[p]henomena of nature, though just discovered, mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work." *Benson*, 409 U.S. at 67; *accord Diehr*, 450 U.S. at 185 ("A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right.") (citation omitted). Although the "fundamental principles" exceptions are not statutory, the Supreme Court has found them to be consistent with the requirement that a patentable invention be "new and useful." *Bilski II*, 130 S. Ct. at 3225 (citing 35 U.S.C. § 101). The Supreme Court recently emphasized that a lower court should be attentive to the "guideposts" of *Benson*, *Flook*, and *Diehr* when considering these exceptions to subject matter patentability. *Id.* at 3231.

In 1972, the *Benson* Court held that a method of programming a computer to convert binary-coded decimal numerals to their equivalent pure binary numerals was not a "process" as covered by the Patent Act. The Court found the method truly claimed an "algorithm," as it represented a general formulation for computers to solve the mathematical problem of converting one numerical representation to another, which merely constituted an algorithm from which specific applications could be developed. *Benson*, 409 U.S. at 65. The Court held that the *Benson* patent would preempt the use of the algorithm by others as the claim could cover known and future unknown uses of the code conversion formula in many different fields and for many different purposes, and effectively preempt its use in existing machinery, future-devised machinery, or no machinery at all. *Id.* at 68. The Court also found that the computer failed to limit the invention since the algorithm had no practical application except in connection with a computer; therefore a patent

on the invention served as a patent on the algorithm itself. *Id.* at 71–2.

In 1978, the *Flook* Court rejected another patent because it was directed to unpatentable subject matter, another algorithm, although the patent contained greater limitations and entailed a more specific application than the patent in *Benson*. The *Flook* patent concerned monitoring conditions during catalytic conversion processes in the petrochemical and oil-refining industries, and the claims were directed to a method of computing an alarm limit, which is the point at which catalytic conversion conditions can produce inefficiencies or danger. The Court recognized that the only novel part of the method was that it employed a new mathematical formula for calculating and/or updating the alarm limit, and that the invention really claimed the algorithm itself. *Flook*, 437 U.S. at 585–86. That the claims were limited to the petrochemical and oil-refining industries and would therefore not preempt the wholesale use of the algorithm was insufficient to render the claims patentable. *Id.* at 589–90. Likewise, the methods were not saved by the "post-solution" activity of adjusting the actual alarm limit based on the results of the algorithm since a "competent draftsman could attach some form of post-solution activity to almost any mathematical formula." *Id.* at 590.

In 1981, the Supreme Court colored the outer limits of the fundamental principles exceptions in *Diehr*, in which the Court upheld the subject matter eligibility of a claim to a process for producing cured synthetic rubber products. While the invention employed a well-known mathematical formula in one of its steps, the patent did not seek to preempt the use of the formula itself, but only preempt its use in conjunction with all the other steps in the claimed method. *Diehr*, 450 U.S. at 187. Admittedly, the mathematical formula would not be patentable on its own, "but when a process for curing rubber is devised which incorporates in it a more efficient solution of the

equation, that process is at the very least not barred at the threshold by § 101." *Id.* at 188. The Court distinguished *Flook* by explaining: "We were careful to note in *Flook* that the patent application did not purport to explain how the variables used in the formula were to be selected, nor did the application contain any disclosure relating to chemical processes at work or the means of setting off an alarm or adjusting the alarm limit. All the application provided was a 'formula for computing an updated alarm limit.'" *Id.* at 192 n.14 (internal citations omitted).

Most recently, in 2010, the Supreme Court found a business method unpatenable as directed to an abstract idea. *See Bilski II*, 130 S. Ct. at 3231. The *Bilski II* Court invalidated process claims generally directed to instructing buyers and sellers how to hedge risk and how to apply the methods to the energy commodities market. *Id.* The Court pointed out that hedging is a "fundamental economic practice long prevalent in our system of commerce and taught in any introductory finance class." *Id.* (citation omitted). "Allowing petitioners to patent risk hedging would pre-empt use of this approach in all fields, and would effectively grant a monopoly over an abstract idea." *Id.* The Court also found the dependent claims applying the methods of hedging risk to the energy commodities market unpatentable as vain attempts to limit an fundamental concept to a particular field of use or to add post-solution components. *Id.* The Court found that the patent claims "attempt to patent the use of the abstract idea of hedging risk in the energy market and then instruct the use of well-known random analysis techniques to help establish some of the inputs into the equation." *Id.* In fact, "these claims add even less to the underlying abstract principle than the invention in *Flook* did, for the *Flook* invention was at least directed to the narrower domain of signaling dangers in operating a catalytic converter." *Id.*

While an abstract idea in itself is not patentable, a claim "is not unpatentable simply

because it contains a law of nature or a mathematical algorithm." *Flook*, 437 U.S. at 590. "It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection." *Diehr*, 450 U.S. at 187 (emphasis in original); *id.* at 192 ("[W]hen a claim containing a mathematical formula implements or applies that formula in a structure or process which, when considered as a whole, is performing a function which the patent laws were designed to protect (e.g., transforming or reducing an article to a different state or thing), then the claim satisfies the requirements of § 101."). It is also clear that when a court examines whether a claim is directed to an abstract idea, the court must view each claim as a whole. "In determining the eligibility of respondents' claimed process for patent protection under § 101, their claims must be considered as a whole . . . This is particularly true in a process claim because a new combination of steps in a process may be patentable even though all the constituents of the combination were well known and in common use before the combination was made." *Diehr*, 450 U.S. at 188; *see also King Pharms., Inc. v. Eon Labs., Inc.*, 616 F.3d 1267, 1277 (Fed. Cir. 2010) (reasserting that "§ 101 patentability analysis is directed to the claim as a whole, not individual limitations" within the claim).

There is no clear definition of what constitutes an abstract idea; instead, courts analogize from the standards etched out by the cases just discussed. As the Federal Circuit recently acknowledged, "the Supreme Court did not presume to provide a rigid formula or definition for abstractness." *Research Corp. Techs. v. Microsoft Corp.*, 627 F.3d 859, 868 (Fed. Cir. 2010) (citing *Bilski II*, 130 S. Ct. at 3238). The Federal Circuit declined to "presume to define 'abstract' beyond the recognition that this disqualifying characteristic should exhibit itself so manifestly as to override the broad statutory categories of eligible subject matter and the statutory context that directs primary

attention on the patentability criteria of the rest of the Patent Act." *Id.*

Ultimately, the determination of whether an asserted claim is invalid for lack of subject matter patentability under § 101 is a question of law. *See Bilski I*, 545 F.3d at 950. A patent is presumed to be valid by statute, 35 U.S.C. § 282; therefore, a patent challenger bears the burden of proving invalidity by clear and convincing evidence. *See Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1359 (Fed. Cir. 2007). This standard of proof applies equally at summary judgment. *See National Presto Indus. v. West Bend Co.*, 76 F.3d 1185, 1189 (Fed. Cir. 1996). While invalidity is a question of law, "determination of this question may require findings of underlying facts specific to the particular subject matter and its mode of claiming." *Arrhythmia Research Technology, Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1056 (Fed. Cir. 1992).

Whether an invention falls within a subject matter eligible for § 101 protection is also a threshold question. *See Comiskey*, 554 F.3d at 975. "It is well-established that '[t]he first door which must be opened on the difficult path to patentability is § 101.'" *Id.* at 973 (quoting *State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1372 n.2 (Fed. Cir. 1998)). Only after an invention has satisfied § 101, will it be analyzed under the remaining hurdles of the Patent Act, which include the requirement that an invention be novel, *see* § 102; nonobvious, *see* § 103; and fully and particularly described, *see* § 112. *See Bilski II*, 130 S. Ct. at 3225.[2]

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[2] The Federal Circuit recently explained, in overturning a district court's finding that a method claim was abstract, that

> an invention which is not so manifestly abstract as to over-ride the statutory language of section 101 may nonetheless lack sufficient concrete disclosure to warrant a patent. In section 112, the Patent Act provides powerful tools to weed out claims that may present a vague or indefinite disclosure of the invention. Thus, a patent that presents a process sufficient to pass the coarse eligibility filter may

III. ANALYSIS

CLS argues that Alice's claims are not patentable because they are directed to an abstract idea—the exchange of an obligation when sufficient value is present—which is supported by its argument that the method claims fail to satisfy the machine-or-transformation test. Thus, CLS posits that Alice's method claims in the '510 Patent and claims 33 and 34 of the '479 Patent are directed to an abstract idea, and then by the draftsman's art, this abstract idea is recast as computer system and product claims in the '720 and '375 Patents to carry out the same methods. CLS argues this is further evidenced by the fact the Patents share essentially the same specification and disclosure.

A. Method Claims

CLS first attacks claims 33 and 34 of the '479 Patent and every claim of the '510 Patent—which collectively entail the only method claims at issue in this litigation—arguing these method claims fail as abstract and because they fail to meet the machine-or-transformation test. Alice responds that the methods are not abstract, but a functional application of a method to satisfy a need, and that the claims further satisfy the machine-or-transformation test.

1. Statutory Category

The first question is whether the methods in claims 33 and 34 of the '479 Patent and

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> nonetheless be invalid as indefinite because the invention would 'not provide sufficient particularity and clarity to inform skilled artisans of the bounds of the claim.' *Star Scientific., Inc. v. R.J. Reynolds Tobacco Co.*, 537 F.3d 1357, 1371 (Fed. Cir. 2008). That same subject matter might also be so conceptual that the written description does not enable a person of ordinary skill in the art to replicate the process.

Research Corp., 627 F.3d at 869.

all claims in the '510 Patent statutorily qualify for patent protection. Congress broadly defined the categories of inventions to be afforded patent protection to ensure that "ingenuity should receive a liberal encouragement." *Chakrabarty*, 447 U.S. at 308–09. The Patent Act defines "process" as a "process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material." 35 U.S.C. § 100(b). The relevant claims of the '479 and '510 Patents are directed to particular methods, or steps, of exchanging obligations. Thus, the claims nominally satisfy the statutory language of § 101 and the process definition laid out in § 100(b). However, the analysis does not end here as the machine-or-transformation test helps guide a court in the decision as to whether a process is subject matter eligible under the Patent Act.

2. Machine-or-Transformation Test

To determine whether a process claims subject matter that is patent eligible, a court may look to the useful and important "machine-or-transformation" ("MOT") test for guidance. *See Prometheus Labs., Inc. v. Mayo Collaborative Servs. & Mayo Clinic Rochester*, No. 2008-1403, 2010 U.S. App. LEXIS 25956, *19–20 (Fed. Cir. Dec. 17, 2010). Under the MOT test, an invention is a process if "(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing." *Bilski I*, 545 F.3d at 954. Further, "the use of a specific machine or transformation of an article must impose meaningful limits on the claim's scope to impart patent-eligibility" and "the involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity." *Id.* at 961–62. The MOT test is neither the exclusive nor the dispositive standard to determine whether an invention qualifies as a process under § 101, yet it remains a "useful and important clue, an investigative tool" in the analysis. *Bilski II*, 130 S. Ct. at 3227. Therefore, this Court analyzes the claims under the MOT

analysis to inform its ultimate finding.

The Court first finds the relevant claims of the '479 and '510 Patents do not involve any "transformation" under the MOT test. Alice argues that the electronic transformation of data caused by the methods' electronic adjustment of accounts satisfies the transformation prong of the test. *See* Alice Mem. 33. The Federal Circuit recently grappled with its "measured approach" to allowing the manipulation of electronic signals or data or even "abstract constructs," such as legal obligations, to qualify as transformations under the Patent Act. *Bilski I*, 545 F.3d at 962. The Federal Circuit pointed to only one example where "the electronic transformation of the data itself into a visual depiction" was sufficient to meet the test. *Id.* at 963 (citing *In re Abele*, 684 F.2d 902, 908–09 (C.C.P.A. 1982)). It was not the mere manipulation of data itself that led the U.S. Court of Customs and Patent Appeals (the predecessor to the U.S. Court of Appeals for the Federal Circuit) to find the method was transformative, but that the process involved the conversion of X-ray data into a visual depiction which represented specific physical objects, i.e., bones. *See Bilski I*, 545 F.3d at 962–63.[3] Taken to the extreme, Alice's argument would convert almost any use of a computer,

[3] Alice cites to *Arrhythmia Research Technology, Inc. v. Corazonix Corp.*, 958 F.2d 1053 (Fed. Cir. 1992), as further support that the method claims before the Court involve a transformation under the MOT test. In *Arrhythmia* the Federal Circuit found the conversion, application, determination, and comparison of electrocardiograph signals to be "physical process steps that transform one physical, electrical signal into another" and, accordingly that the process satisfied the second step of the *Freeman-Walter-Abele* test—which requires that an algorithm be applied to physical elements or process steps to be patent eligible. *Id.* at 1059. This analysis is inapposite. First, the Federal Circuit's analysis was not related to the MOT test. Second, the Circuit has since found the *Freeman-Walter-Abele* test to be an inadequate indicator of subject matter patentability and has warned that portions of prior decisions relying solely on this test should no longer be relied upon. *Bilski I*, 545 F.3d at 959 n.17. The *Bilski I* Court clarified that "the proper inquiry under § 101 is not whether the process claim recites sufficient "physical steps," but rather whether the claim meets the machine-or-transformation test." *Id.* at 961 (referring to the 'physical steps' test developed in *In re Comiskey*, 499 F.3d 1365 (Fed. Cir. 2007)).

or other electronic device with memory, to a transformation under the MOT test simply because data would necessarily have to be manipulated, and on a microscopic level, a hard drive, for instance, would be "transformed" by the process of "mangnetizing or demagnetizing part of a hard disk drive platter corresponding to a bit of data." *See* Alice Mem. 33.

Further, for a transformation to satisfy the MOT test, the "transformation must be central to the purpose of the claimed process." *Bilski I*, 545 F.3d at 962. Assuming the asserted process claims in the Patents are implemented by computer, the claims are nonetheless directed to "a method of exchanging obligations," not to the manipulation of an electronic hard drive or memory, and any such electronic transformation is at most incidental to the exchange of obligations, not to mention it would also constitute insignificant extra-solution activity. Further, the exchange of "obligations" itself involves no particular article being transformed since obligations are a mere abstraction. "Purported transformations or manipulations simply of public or private legal obligations or relationships, business risks, or other such abstractions cannot meet the test because they are not physical objects or substances, and they are not representative of physical objects or substances." *Bilski I*, 545 F.3d at 963.[4] The method claims before the Court, that is, every claim of the '510 Patent and claims 33 and 34 of the '479 Patent, fail to transform any article under the

[4] Similarly, a district court found a method directed towards discovering credit card fraud did not meet the transformation prong of the MOT test, despite the manipulation of credit information, because no article or physical object was transformed. The credit card number and the card itself were found to represent merely "a common underlying abstraction–a credit card account, which is a series of rights and obligations" existing between the account holder and card issuer. *Cybersource Corp. v. Retail Decisions, Inc.*, 620 F. Supp. 2d 1068, 1074 (N.D. Cal. 2009). Although the credit card information manifests in a physical credit card, the district court noted: "Options like those described in the *Bilski* patent do not simply float in the ether. A piece of paper upon which the terms of an option are written is, like a credit card, a physical object. Yet this connection to a physical medium does not create patent eligibility, because an option ultimately represents the abstraction of a legal obligation or business risk." *Id.*

machine-or-transformation test.

The closer question is whether Alice's process claims are tied to a particular machine or apparatus under the MOT test. A "machine" is a "a concrete thing, consisting of parts, or of certain devices and combination of devices." *In re Nuijten*, 500 F.3d 1346, 1355 (Fed. Cir. 2007) (quoting *Burr v. Duryee*, 68 U.S. (1 Wall.) 531, 570 (1863)). The Court first looks to the '510 Patent claims, each of which recites "electronically adjusting" records and/or accounts as a step within the claim.[5] The Court has yet to construe the terms of these claims, but CLS concedes for purposes of these motions that the recitation of "electronically adjusting" by each of the '510 Patent claims means that the claims require the use of a computer. CLS Opp'n & Reply in Supp. of Mot. for Summ. J. [Dkt. ## 97, 98] ("CLS Reply") at 11 n.6.

The Court will also presume, for purposes of these motions, that claims 33 and 34 of the '479 Patent are directed to computer implementation, a position CLS contests. To be sure, claims 33 and 34 of the '479 Patent contain no unambiguous reference to a machine or apparatus. Alice posits that a person of ordinary skill in the relevant art reading these claims in light of the specification and other claims of the '479 Patent would understand the term "transaction" to require the use of electronic data processing systems, *see* Alice Reply in Supp. of Mot. for Summ. J. [Dkt. # 99] ("Alice Reply") 23, and the terms "shadow credit record" and "shadow debit record" to require electronic storage of data files in a data storage unit. *Id.* (citing Ginsberg Decl. ¶ 32); *see also* '479 Patent, col. 65:27, 33 (Claim 33). At a minimum, Alice argues that claims 33 and 34 are directed to implementation by a computer system including a processor and memory. *See* Alice Mem. 31;

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[5] *See* '510 Patent, col. 64:11–12 (Claim 1); *id.* col. 65:25–26 (Claim 27); *id.* col. 66:63–64 (Claim 61); *id.* col. 67:24–25 (Claim 65); *id.* col. 68:7 (Claim 68) (collectively, the five independent claims of the '510 Patent).

see also Ginsberg Decl. ¶ 43 (noting that the process claims "expressly recite methods of performing a particular transaction electronically, which requires (explicitly or implicitly) the use of a computer system").

Whether a claim is valid under § 101 is a matter of claim construction, *see State Street*, 149 F.3d at 1370, and for purposes of these motions, CLS has agreed to assume a construction of terms favorable to Alice.[6] The specification for the '479 Patent reveals that the invention entails systems and methods to be realized through the use of a computer with specific programming. *See, e.g.*, '479 Patent, col. 4:24–42; *see also* Ginsberg ¶ 29 ("The entire patent is directed to computer systems and the software applications, e.g., 'CONTRACT APPS,' needed to perform the methods described in the patent."). However, claims 33 and 34 are independent of the broader, more intricate trading platform system revealed in the specification and claimed by the '479 Patent. However, because the relevant terms of claims 33 and 34 of the '479 Patent have yet to be construed, because CLS has agreed to a broad construction of terms favorable to Alice, and because the specification reveals a computer-based invention, the Court can reasonably assume for present purposes that the terms "shadow" credit and/or debit record and "transaction" in the '479 Patent recite electronic implementation and a computer or an analogous electronic device.

The single fact that Alice's method claims are implemented by computer does not mean the methods are tied to a particular machine under the MOT test. The requirement that shadow

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[6] To have the Court consider CLS's § 101 defense before conducting a possible *Markman* hearing, *see Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), CLS agreed to assume a construction of claims favorable to Alice. *See, e.g.*, Alice Mem., [Ex 6] Tr. of Aug. 6, 2010 Status Conference at 12:22–25 (reflecting that counsel for CLS stated: "I will say even as to *Markman* our briefing will assume a broad construction favorable to Alice, so we're going to assume that in arguing whether this is really a patentable subject mater or not so that we can expedite that").

accounts and/or records be adjusted electronically, or that information be stored electronically, may not sufficiently tie the claims to a particular machine or apparatus that imposes meaningful limits on the claims' scope. *See* CLS Reply 10. At what point does a method that is to be implemented by computer become sufficiently tied to a *particular* computer, so that it satisfies the machine prong of the MOT test? This question has not been clearly answered by the Federal Circuit or the Supreme Court. *See, e.g., Bilski I*, 545 F.3d at 962 ("We leave to future cases the elaboration of the precise contours of machine implementation, as well as the answers to particular questions, such as whether or when recitation of a computer suffices to tie a process claim to a particular machine.").

The Court concludes that nominal recitation of a general-purpose computer in a method claim does not tie the claim to a particular machine or apparatus or save the claim from being found unpatentable under § 101. *See, e.g., Fuzzysharp Techs., Inc. v. 3D Labs Inc., Ltd.*, No. 07-5948, 2009 U.S. Dist. LEXIS 115493, *12 (N.D. Cal. Dec. 11, 2009) ("Courts applying *Bilski* have concluded that the mere recitation of 'computer' or reference to using a computer in a patent claim us [sic] insufficient to tie a patent claim *to a particular machine*.") (emphasis in original) (referring to *Bilski I*, 545 F.3d 943); *Cf. Benson*, 409 U.S. 63 (finding method claims to be performed on a general purpose computer to be invalid as an algorithm). On the other hand, a computer that has been specifically programmed to perform the steps of a method may no longer be considered a general purpose computer, but instead, a particular machine. *Cf. In re Alappat*, 33 F.3d 1526, 1545 (Fed. Cir. 1994) (finding that "a general purpose computer in effect becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software").

With evolving guidance on this issue, district courts have determined that a method

claim that is directed to a general purpose computer is not tied to a particular machine under the MOT test.[7] *See, e.g., Fuzzysharp*, 2009 U.S. Dist. LEXIS 115493 at *12 ("The salient question is not whether the claims are tied to a computer. Rather, as *Bilski* makes clear, the question is whether the claims are tied to *a particular machine*.") (citing *Bilski I*, 545 F.3d at 961) (emphasis in original). In *DealerTrack*, a district court found asserted claims directed to a "computer aided method" of managing a credit application to be invalid under § 101. *DealerTrack, Inc. v. Huber*, 657 F. Supp. 2d 1152 (C.D. Cal. 2009). The court found the method at issue was not tied to a particular machine because the patent failed to specify how the hardware and database recited were "specially programmed" to implement the method, and the claimed central processor was "nothing more than a general purpose computer that has been programmed in some unspecified manner." *Id.* at 1156; *see also Accenture Global Servs. GMBH v. Guidewire Software, Inc.*, 691 F. Supp. 2d 577, 597 (D. Del. 2010) (suggesting that a method conducted by a "data processing system," which also claimed a "claim folder," "display device," and "screen," was not tied to a particular computer per the MOT test because the terms failed to "imply a specific computer having any particular programming – they are descriptive of a general computer system at best").

The *Fuzzysharp* court also found certain method claims were not tied to a particular machine. The claims at issue related to "reducing the indivisibility related computations in 3-D

[7] While a few of the cases cited for this proposition were decided before the Supreme Court issued *Bilski II*, that decision did not touch upon the contours of when a method claim is tied to a particular machine or apparatus under the MOT test. The Court's decision did, of course, dethrone the MOT test as the exclusive test for process patentability under § 101. Thus, while some of these earlier lower-court decisions may have based their holdings entirely upon the results of their application of the MOT test, something against which the Supreme Court has now spoken, the analysis of these decisions as to when a method is tied to a particular machine or apparatus itself remains unaltered after *Bilski II*.

graphics" and the district court accepted that the claims required a device such as a computer because at least one claim recited "computer storage," and the parties agreed that certain terms required a "computer screen." *Fuzzysharp*, 2009 U.S. Dist. LEXIS 115493 at *11–12. Nonetheless the court found that the claims were not tied to a particular machine because they either contained only a "passing reference to 'computer storage'" or simply made "a general[] reference to 'a' computer." *Id.* at *12–15. The court noted that ultimately the challenged method claims employed algorithms and calculations which would require a computer, but no particular computer. *Id.* at *15.[8]

To determine whether a machine is particular under the MOT test, courts also look

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[8] In light of *Bilski I* and *Bilski II*, the Board of Patent Appeals and Interferences has shown a similar inclination. *See, e.g., Ex Parte Monk*, No. 2009-013250, 2010 WL 5477256, *3 (B.P.A.I. Dec. 30, 2010) (finding claims directed to a method of monitoring credit fraud not tied to a particular machine per the MOT test because the recitation of "analysis engines and a global negative file" represented "at most, the use of a general computer" since the specification disclosed that any microprocessor based system capable of monitoring ongoing credit activity and/or authorizing activity in response could form the analysis engines, and the global negative files could be stored on any general purpose computer); *Ex Parte Kuno*, No. 2009-006896, 2010 WL 5127425, *10 (B.P.A.I. Dec. 13, 2010) ("Although the preamble of claim 1 calls for a 'processor-based' method, the body of the claim recites no structure at all, let alone a particular machine to which the recited process is tied. But even if a processor were recited in the body of the claim, such a nominal structural recitation would be a tantamount to a general purpose computer and would not tie the process to a particular machine or apparatus."); *Ex Parte Myr*, No. 2009-005949, 2009 WL 3006497, *9–10 (B.P.A.I. Sept. 18, 2009) (finding method claims unpatentable, in part, because claims which used the phrase "computer-implemented" only tied the process to "any general-purpose computer" and the recitation "method executed in a computer apparatus" is "so generic as to encompass any computing system, such that anyone who performed this method in practice would fall within the scope of these claims"); *Ex Parte Nawathe*, No. 2007-3360, 2009 WL 327520, *4 (B.P.A.I. Feb. 9, 2009) (rejecting under § 101 claims reciting a computerized method of inputting and representing XML documents since the "computerized recitation purports to a general purpose processor [] as opposed to a particular computer specifically programmed for executing the steps of the claimed method"); *but see Ex Parte Kohda*, No. 2009-006262, 2010 WL 4780565, *3 (B.P.A.I. Nov. 22, 2010) (remanding to patent examiner for further findings and suggesting that under the broadest reasonable construction the claims could be read to recite a particular apparatus under the MOT test since they claimed an electronic shopping cart—which appears to collect information on customers purchases thereby targeting advertisements the customers would see).

to whether the machine or apparatus imposes meaningful limits on the process itself. "In order for the addition of a machine to impose a meaningful limit on the scope of a claim, it must play a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be achieved more quickly, i.e., through the utilization of a computer for performing calculations." *SiRF Tech., Inc. v. ITC*, 601 F.3d 1319, 1333 (Fed. Cir. 2010). A machine meaningfully limits a method when the machine is "essential to the operation of the claimed methods." *Id.* In *SiRF Tech.*, decided before *Bilski II*, the Federal Circuit held that claimed methods for teaching a GPS receiver an improved manner in which to calculate its position were tied to a particular machine. *Id.* The Federal Circuit underscored the fact that the machine imposed meaningful limits on the methods since the methods could not be performed without the machine itself—the GPS receiver—and there was no evidence that the calculations required by the claims could be performed entirely in the human mind. *Id.* at 1332–33; *see also Cybersource Corp. v. Retail Decisions, Inc.*, 620 F. Supp. 2d 1068, 1077 (N.D. Cal. 2009) (finding a method for detecting fraud in credit card transactions over the Internet directed to unpatentable subject matter as the method was not limited to a particular machine, in part, because the process could occur offline: "To give but one example, a merchant taking an order over the telephone could use records or databases to cross-check all credit card numbers associated with that telephone number").

Similarly, in *Every Penny Counts*, a district court invalidated a method claim because it failed the MOT test. *See Every Penny Counts, Inc. v. Bank of Am. Corp.*, No. 2:07-042, 2009 U.S. Dist. LEXIS 53626 (M.D. Fla. May 27, 2009). The claim was directed to a system in which a consumer could have a portion of any credit or debit transaction set aside—that amount determined

either by rounding up each transaction to the nearest dollar and setting aside the difference or by adding a predetermined amount to each transaction—and then have the portion routed to either the consumer's savings account, a preferred charitable organization, or a portion to each. *Id.* at *2. The district court first found the claim, categorized as a system, to be truly directed to a process since it "has no substantial practical application except in connection with computers, cash registers, and networks, but it is not comprised of those devices." *Id.* at *7 (internal quotation marks omitted). The court then found that although the process recited implementation by a "network," "entry means" and a "computing means in said network being responsive to said data," the so-described computer failed to impose a meaningful limitation on the process because the claim was essentially "a mathematical algorithm [that] uses machines for data input and data output and to perform the required calculations." *Id.* at *7.

Granting Alice's position that "claims 33 and 34 of the '479 patent are properly limited to implementations of the claim methods using a computer, just as the '510 patent requires," *see* Alice Mem. 32 n.15, the Court nonetheless finds the method claims before the Court—claims 33 and 34 of the '479 Patent and each claim of the '510 Patent—are not tied to a particular machine under the MOT test. Assuming accounts and/or records will be electronically adjusted, which requires information to be stored electronically in a data storage unit, and that an irrevocable instruction is conducted electronically, the method claims here at best recite implementation by a general-purpose computer.[9]

[9] Alice holds up *AT&T Corp. v. Excel Commc'ns.*, 172 F.3d 1352 (Fed. Cir. 1999), and, again, *Arrhythmia* to dispute the need for a claim to recite more than a processor and a memory in order to be tied to a particular machine. However, the *Arrhythmia* Court did not conduct its analysis under the MOT test, nor did the case base its finding on the interconnectedness between a method claim and electronic equipment. The Circuit instead found the process before it was valid because

The claims before the Court at most implicitly recite a computer by claiming electronic adjustment of records or accounts.[10] This contrasts with other cases in which district courts found methods were not tied to a particular machine and were unpatentable under § 101 despite explicit recitation of hardware or computer components. *See, e.g., Every Penny*, 2009 U.S. Dist. LEXIS 53626 at *7 (reciting "network," "entry means" and "computing means in said network being responsive to said data"); *Fuzzysharp*, 2009 U.S. Dist. LEXIS 115493 at *12 (reciting "computer" and "computer storage"); *DealerTrack*, 657 F. Supp. 2d at 1153 (reciting, *inter alia*, "computer aided method" and "remote application entry and display device"); *Accenture Global Servs.*, 691 F. Supp. 2d at 597 (suggesting, but not holding, that claims reciting "data processing system," "claim folder," "display device," and "screen" were not patentable).

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it included physical process steps under the now defunct *Freeman-Walter-Abele* test. *See Arrhythmia*, 958 F.2d at 1059; *see also supra* note 3. Similarly, the Federal Circuit relied on the "useful, concrete, and tangible result" test in *AT&T* to find a process claim valid per § 101. *See AT&T Corp.*, 172 F.3d at 1358. The *Freeman-Walter-Abele* test and the "physical steps" tests were predecessors of sorts to, and superceded by, the "useful, concrete, and tangible result" test. This test has also since been rejected explicitly by the Federal Circuit and the Supreme Court. *See Bilski I*, 545 F.3d at 959–60; *id.* at 960 n.19; *In re Ferguson*, 558 F.3d 1359, 1364 (Fed. Cir. 2009) (reaffirming that the "useful, concrete, and tangible" result test has no continuing validity); *Bilski II*, 130 S. Ct. at 3231.

[10] Alice posits that the "electronic adjustment step, along with the maintenance of electronic accounts, and the generation of electronic instructions, are carried out because the computer implementing the claimed method acts as an electronic third party between two counterparties in an effort to minimize the risk that one counterparty will default." Alice Mem. 36 (citing Ginsberg Decl. ¶¶ 40–45). The claims recite a "supervisory institution" as the intermediary facilitating the exchange of obligations. *See* '479 Patent, claims 33–34; '510 Patent, claims 1–75. Alice suggests at one point that the intermediary may be a person or a company, *see* Alice Mem. 4–5 (contending that the patents disclose and claim in various ways a computerized trading platform for exchanging obligations in which "a trusted third party, running a computer system programmed in a specific way," settles the obligations and that the "the trusted third party—a 'supervisory institution'—operates a data processing system"), but even if the "supervisory institution" is a company or a computer, meaning a computer controls the entire method rather than a person implementing the steps of the method by way of computer, the claims before the Court at most implicitly recite a general purpose computer.

To be sure, the specification of the '479 Patent, which the '510 Patent largely shares, reveals a seemingly intricate "trading platform" invention consisting of systems and methods, with apparent software applications to be used in implementing the invention. The '479 Patent specification speaks to methods being conducted by way of specifically programmed computing devices. *See, e.g.*, '479 Patent, col. 28:12–16 ("The invention has industrial application in the use of electrical computing devices and data communications. The apparatus and methods described allow the management of risk in an automated manner by means of programming of the computing devices."); '510 Patent, col. 31:66–67 & col. 32:1–3 (same). The specification undoubtedly provides context for reading a patent's claims, but the plain language of the claims themselves is the measure of the breadth of patent protection granted. *See Innova/Pure Water, Inc. v. Safari Water Filtration Sys.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004).

Alice points to unasserted claims 12 and 28 of the '479 Patent to demonstrate that if claims 33 and 34 are interpreted in context of other '479 Patent claims, it becomes clear that claims 33 and 34 also require computer implementation. *See* Ginsberg ¶¶ 30–31. The Court has accepted this proposition, however this juxtaposition reinforces the Court's conclusion that claims 33 and 34 of the '479 Patent are independent of the broader computer system revealed in the specification, and it demonstrates that the drafters of the claims of the '479 Patent knew how to explicitly recite to computer components.[11] Claim 12 discloses a detailed system which incorporates other claims,

[11] "Other claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment as to the meaning of a claim term. Because claim terms are normally used consistently throughout the patent, the usage of a term in one claim can often illuminate the meaning of the same term in other claims. Differences among claims can also be a useful guide in understanding the meaning of particular claim terms." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005).

including the computer based processing system revealed in claim 1, and additionally claims an exchange institution holding a debit and credit record, that the "data processing apparatus" be "configured" to maintain a shadow credit and debit record for each stakeholder, and the "data processing means being configured" to obtain a start-of-day balance for the shadow credit and debit records and to at the end-of-day instruct the exchange institutions to adjust their records according to the transactions performed. *See* '479 Patent, col. 61:53–67 & col. 62:1–7. Claim 28 of the '479 Patent, on the other hand, is directed to a method of exchanging obligations similar to claims 33 and 34, but recites additional elements, such as a "data processing apparatus"—incorporated from claim 18—and that an independent shadow credit and debit record be maintained and that "at the end-of-day, the data processing apparatus instructing ones of the exchange institutions" to effectuate the exchanges accordingly. *Id.* col. 64:13–40.

Therefore, even assuming a reasonable construction favorable to Alice that claims 33 and 34 of the '479 Patent and each claim of the '510 Patent recites to computer implementation, the asserted claims contain no indication that the computers, or other devices required to implement the methods, are specifically programmed. The claims make no mention of any specific hardware, let alone software or specifically programmed hardware. Alice's expert construes the claims to require "a computer configured and programmed to carry out the processes of the claims." Ginsberg Decl. ¶ 15. Alice argues the term "shadow record" refers to electronic records maintained in a data storage unit by a computer programmed with application software. Alice Reply 24. While the specification and other claims of the '479 Patent may reveal specifically programmed computers, only claims 33 and 34 of the '479 Patent and the claims of the '510 Patent are before the Court, and according to the plain language of the terms actually employed in these claims it cannot be said that

they reasonably recite to a specifically programmed computer.

Furthermore, that the processes before the Court are conducted electronically, by way of a computer, fails to impose a meaningful limitation on the processes themselves. *See Every Penny Counts*, 2009 U.S. Dist. LEXIS 53626 at *7 (finding the computerized method required machines for data input and output, and to perform calculations, but the machines imposed no limit on the process itself). A computer may facilitate and expedite the claimed methods, however the methods before the Court could be performed without use of a computer. Alice's expert acknowledges that the methods could be performed in a non-electronic format. "In an abstract sense, it is possible to perform the business methods of maintaining accounts, and providing an instruction without a computer or other hardware." Ginsberg Decl. ¶ 40. "If someone had thought of this invention 100 years ago, they might have implemented it in a non-electronic manner using various pre-computing tools such as an abacus or handwritten ledgers." *Id.*

Looking at the methods claimed by Alice, the Court need not even engage in abstraction to contemplate how they could be implemented without the use of electronics. The method of exchanging obligations by employing an intermediary to consummate the exchange after ensuring the parties have adequate value to guarantee the exchange, perhaps by keeping an up-to-date record of the parties' abilities to honor their obligations, and then providing an irrevocable instruction to the parties—or their representative banks or other value holders—to adjust their accounts or records accordingly, does not require the use of computers. *See Ultramercial, LLC v. Hulu, LLC*, No. 09-06918, 2010 U.S. Dist. LEXIS 93453, *13 (C.D. Cal. Aug. 13, 2010) (finding a computerized method invalid, in part, because "[t]here is nothing inherently computer-specific about receiving media from a content provider, choosing a sponsor for the media, selecting an ad for

the sponsor, verifying the viewer's activity, assigning passwords, charging the sponsor for the advertisement, or any of the remaining steps"); *see also Benson*, 409 U.S. at 67 ("The mathematical procedures can be carried out in existing computers long in use, no new machinery being necessary. And, as noted, they can also be performed without a computer."); *Flook*, 437 U.S. at 586 ("Although the computations can be made by pencil and paper calculations, the abstract of disclosure makes it clear that the formula is primarily useful for computerized calculations producing automatic adjustments in alarm settings."). Claims 33 and 34 of the '479 Patent and the claims of the '510 Patent are not meaningfully limited by a computer since a computer is not essential to the operation of the methods. *See SiRF Tech.*, 601 F.3d at 1333.

Even if computer implementation is not inherently necessary for the methods claimed, a computerized approach would indubitably expedite the exchanges. However, it is also true that simply because method claims call for computerized implementation to be usefully or pragmatically applied "does not mean, however, that the patent claims are limited to use on a computer, or, more importantly, that they are *tied* to one." *Ultramercial*, 2010 U.S. Dist. LEXIS 93453 at *13 (emphasis in original). "That the disclosed invention is only used on computers or computer networks cannot alone satisfy the machine test without rendering the test completely toothless." *Id.* It is a truism that the "the particular methods claimed in these patents only work, as intended, when carried out using a computer," Ginsberg ¶ 41, but that alone does not mean that a computer meaningfully limits the processes. For the foregoing reasons, the Court finds that claims 33 and 34 of the '479 Patent and claims 1–75 of the '510 Patent fail to satisfy the machine-or-implementation test.[12] However, even

[12] The Court notes that there will likely soon be further guidance from the Federal Circuit on the extent of interconnectedness required between a machine and a process for the process to satisfy the MOT test as several cases this Court finds persuasive—*Every Penny*, *DealerTrack*, *Fuzzysharp*,

if these claims were to satisfy the MOT test, the Court would still move next to analyze the claims under the abstract idea exception.

3. Abstract Idea Exception to Patentability

CLS asserts that Alice's methods, claims 33 and 34 of the '479 Patent and claims 1–75 of the '510 Patent, attempt to patent the abstract idea of "'exchanging an obligation between parties' after ensuring that there is 'adequate value' in independent accounts maintained for the parties." CLS Mem. 24. CLS analogizes the method claims to a "two-sided 'escrow' arrangement for financial transactions" and likens Alice's supposed escrow-type invention to the hedging claims that were invalidated by the Supreme Court in *Bilski II*. *Id.* at 25. Alice defends the methods as "more than a mere statement of a concept," and insists they constitute "a particular solution to a real world problem in need of solving—eliminating counterparty risk with a complicated computer system programmed to perform the settlement." Alice Mem. 34. Alice argues against abstractness in that the "performance of the method can be observed and verified; settlements are completed electronically, with accounts being electronically debited and credited." *Id.* (citing Ginsberg Decl. ¶¶ 44–45).

The claims before the Supreme Court in *Bilski II*, which the Court found to encapsulate the concept of hedging, were directed to the steps of initiating a series of transactions between a commodity provider and consumers at a fixed rate which corresponded to consumers' risk positions, identifying market participants for the commodity who had a counter-risk position, and then initiating a series of transactions at a fixed price between the commodity provider and those

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and *Ultramercial*—are all currently before the Circuit. The outstanding motions, however, have been pending too long to await further guidance.

market participants having a counter-risk position. *See Bilski II*, 130 S. Ct. at 3223–24. The Supreme Court found the invention claimed a fundamental economic practice. *Id.* at 3231. Similarly, a district court found a business method directed to allowing Internet users to view copyrighted material free of charge in exchange for viewing certain advertisements to be an unpatentable abstract idea. *See Ultramercial*, 2010 U.S. Dist. LEXIS 93453 at *17. The district court found the method abstract because at its core sat "the basic idea that one can use advertisement as an exchange or currency." *Id.*

CLS argues that Alice's method claims are directed to unpatentable processes for exchanging an obligation based on a mathematical algorithm, as well as the abstract idea of transformation or manipulation of legal obligations or business risks. CLS Reply 23. The Court need not consider whether the methods, at heart, claim nothing more than an algorithm because the Court agrees that the methods are directed to an abstract idea of employing an intermediary to facilitate simultaneous exchange of obligations in order to minimize risk. This is a basic business or financial concept much like those struck down in *Bilski II* or *Ultramercial*. At 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. Using an intermediary, which may independently maintain records or accounts on the parties to ensure each party has sufficient value or worth to complete a proposed exchange, as a way to guarantee that a transaction is ultimately honored by all parties, thereby minimizing risk, remains a fundamental, abstract concept.

To demonstrate, independent claim 27 of the '510 Patent requires the supervisory institution to maintain an account for a first party which is independent of an account held by an exchange institution, to facilitate an exchange of obligations if the first party's account value (however defined) does not drop below zero, and to conduct a transaction with the exchange institution that is irrevocable at the end of a period to reflect the exchange of obligations made. *See* '510 Patent, claim 27. Essentially, this claim is directed to the abstract and fundamental concept of using an intermediary to guarantee an exchange. Similar to the invention in *Flook*, which was found merely to provide a formula for computing an alarm limit, *see Diehr*, 450 U.S. at 192 n.14, the invention here simply provides the formula, or manner, in which to use an electronic intermediary to exchange obligations as a way to hedge against the risk of loss. Independent claim 33 of the '479 Patent and independent claims 1, 61, 65, and 68 of the '510 Patent, each is directed as a whole to this same abstract concept.

Alice argues that the claimed methods "require the use of a computer and data storage unit programmed to perform a particular financial transaction, implement a concept in a tangible way with tangible, real world results – money is exchanged in the absence of counterparty risk." Alice Mem. 34. There may be no dispute that the methods claimed engender a practical result, but this fact alone does not rescue the claims from the realm of abstraction. Some abstract ideas, such as fundamental business concepts, although not patentable standing alone will nonetheless produce useful results when basically applied. *Cf. Bilski I*, 545 F.3d at 965 ("[T]he claimed process here as a whole is directed to the mental and mathematical process of identifying transactions that would hedge risk. The fact that the claim requires the identified transactions actually to be made does no more to alter the character of the claim as a whole."); *see also Diehr*, 450 U.S. at 192 n.14 (noting

that the claims in *Flook* "did more than present a mathematical formula" but presented steps to calculate an updated alarm limit and replace the outdated alarm limit for which there were a "broad range of potential uses" in the petrochemical and oil refinery industries); *Ultramercial*, 2010 U.S. Dist. LEXIS 93453 at *19 (stating that despite the Supreme Court coming to different conclusions on subject matter eligibility in *Diehr* and *Bilski II*: "In both [cases], the claimed invention discloses a real-world application of a mathematical formula. In both, a well-known or basic principle is linked to its practical use."). It would seem logical that the concept and application of hedging in the energy markets before the Supreme Court in *Bilski II* would produce practical and real world results; however the Court did not focus on this point, but instead held the claims were "broad examples" of a concept and the patent would ultimately preempt the use of the concept itself. *Bilski II*, 130 S. Ct. at 3231. The fact that a claim produces practical results may inform the abstract analysis, but it is not dispositive of subject matter eligibility.[13]

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[13] Alice does not argue that the identification of tangible, real-world applications is sufficient to satisfy the subject matter eligibility question. Yet, it is important to note that the "useful, concrete, and tangible result" test has been clearly disavowed by both the Federal Circuit and the Supreme Court. *See supra* note 9. An administrative patent judge, writing before the test was invalidated, noted that: "The decisions by the Court of Appeals for the Federal Circuit in *State Street Bank & Trust Co. v. Signature Financial Groups Inc.* [149 F.3d 1368 (1998)] and *AT&T Corp. v. Excel Communications, Inc.* [172 F.3d 1352 (1999)] have made it easier for the public to obtain patents covering computer implemented business-related inventions. In those decisions, the Court of Appeals for the Federal Circuit held that computer implemented business method-related inventions are deemed 'statutory' subject matter (subject matter that can be patented) under 35 U.S.C. § 101 if they have a 'practical application,' i.e., produce a 'useful, concrete and tangible result' . . . . This holding has had a profound effect on the growth of new patents and patent applications covering computer implemented business method inventions. The number of new applications of these types filed in Class 705 (designated as business and management data processing class) increased from 1370 in Fiscal Year 1998 to 2600 in Fiscal Year 1999 and to 7800 in Fiscal Year 2000. The number of patents issued from these types of applications increased from a total of 447 prior to 1986 to a total of 2,850 as of the end of Fiscal Year 1999." Chung K. Pak, Patenting E-Commerce Inventions: Perspective From an Administrative Patent Judge, 85 J. Pat. & Trademark Off. Soc'y 447, 448–49 (2003) (internal citations omitted).

A district court should instead focus on the extent to which the application of an abstract idea is specific and/or limited to determine whether an invention is patent eligible. Recently, the Federal Circuit reversed a district court's finding that a method for "rendering a halftone image of a digital image by comparing, pixel by pixel, the digital image against a blue noise mask" was unpatentable as directed to an abstract algorithm. *See Research Corp.*, 627 F.3d at 868. The Circuit found the invention was not abstract, in part, because it presented "functional and palpable applications in the field of computer technology" and addressed "a need in the art for a method of and apparatus for the halftone rendering of gray scale images in which a digital data processor is utilized in a simple and precise manner to accomplish the halftone rendering." *Id.* at 868–69. "Indeed, this court notes that inventions with specific applications or improvements to technologies in the marketplace are not likely to be so abstract that they override the statutory language and framework of the Patent Act." *Id.* at 869.

An analysis of the preemptive power of a claim is inextricably linked with the question of whether the application of an abstract idea is specific or limited. "Pre-emption of all uses of a fundamental principle in all fields and pre-emption of all uses of the principle in only one field both indicate that the claim is not limited to a particular application of the principle." *Bilski I*, 545 F.3d at 957; *see also Accenture*, 691 F. Supp. 2d at 595 ("While it is not permissible to pre-empt the use of an intangible principle, an application of the principle may be patentable; the scope of the exclusion of others to practice or utilize the fundamental principle imparted by the claims must be examined.").[14] The abstract idea claimed by Alice's methods in claims 33 and 34 of the '479 Patent

[14] *See also Bilski I*, 545 F.3d at 953 ("Patents, by definition, grant the power to exclude others from practicing that which the patent claims. *Diehr* can be understood to suggest that whether a claim is drawn only to a fundamental principle is essentially an inquiry into the scope of that

and each claim of the '510 Patent effectively preempt the use of an electronic intermediary to guarantee exchanges across an incredible swath of the economic sector. The *Cybersource* court found the claims before it "broadly preempt the fundamental mental process of fraud detection using associations between credit card numbers." *Cybersource*, 620 F. Supp. 2d at 1077. Taking note of the fact that credit card transactions over the Internet have "become a staple of modern business," the court found the methods would "preempt the use of fundamental mental processes across an extraordinarily large and important segment of the commercial system." *Id.* The same is true here.

The processes claimed by Alice employ a supervisory institution to serve as an intermediary to exchange obligations, which may monitor the credit/debit accounts/records at the parties' exchange institution, and when sufficient value is present, the supervisory institution conducts the exchange of obligations and instructs the parties, or their value holding exchange institutions, to adjust their accounts/records accordingly. The methods broadly claim the idea of exchanging "obligations" by way of an intermediary. Although each claim should be considered independently and as a whole, by looking to the dependent claims of '510 Patent one understands the reach of the methods claimed. The dependent claims recite potential "obligations" as those that arise from any transaction linked to a "share price," a "weather event," a "market event," or a "currency exchange transaction,"[15] and explain that the exchange of obligations may represent the transfer of or transaction in "shares in financial or physical assets," "a wager," "a commodity," or

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exclusion; i.e., whether the effect of allowing the claim would be to allow the patentee to pre-empt substantially all uses of that fundamental principle. If so, the claim is not drawn to patent-eligible subject matter.").

[15] *See* '510 Patent, col. 64:22 (Claim 2); *id.* col. 64:25 (Claim 3); *id.* col. 64:27 (Claim 4); *id.* col. 64:61 (Claim 18) (respectively).

"money for goods, services, promises, credits or warrants."[16] If patentable, these claims could preempt the use of an electronic intermediary, using a shadow credit and/or debit records, as a manner in which to exchange an infinite array of tangible and intangible representations of value.

The remaining dependent claims in the '510 Patent as a whole also speak to the type of entity that might be an "exchange institution"— i.e. a credit card company, a debit card company, a bank, or a guarantor,[17] or they set forth basic realities of exchanging financial obligations, such as the fact that various institutions might exist in different time zones or be domiciled in legally and/or geographically different countries. *See* '510 Patent, col. 64:62–63 (Claim 19); *id.* col. 65:56–57 (Claim 37). Rather than limit the invention reflected in the '510 Patent, the dependent claims illustrate how broadly the invention might sweep its monopoly across commerce. These dependent claims are, inter alia, broad examples of what tangible and intangible items might be exchanged and the financial and institutional value holders to be governed by the '510 Patent. The claims simply recite how an electronic intermediary can be used to effectuate an almost infinite array of exchanges in the modern financial world. Unlike the concrete and palpable blue noise mask and pixel-by-pixel comparison method which resulted in a higher quality halftone digital image all while using less processor power and memory space which was before the Federal Circuit in *Research Corp.*, *see* 627 F.3d at 865, Alice's method claims are hardly limited to "specific applications" of an fundamental concept. *Id.* at 869.

It is clear that "limiting an abstract idea to one field of use or adding token

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[16] *See* '510 Patent, col. 64:29–30 (Claim 5); *id.* col. 64:32 (Claim 6); *id.* col. 64:34 (Claim 7); *id.* col. 64:36–37 (Claim 8) (respectively).

[17] *See* '510 Patent, col. 64:47 (Claim 12); *id.* col. 64:49 (Claim 13); *id.* col. 64:51 (Claim 14); *id.* col. 64:55 (Claim 16) (respectively).

postsolution components" does not make an abstract idea patentable. *Bilski II*, 130 S. Ct. at 3231; *see also Diehr*, 450 U.S. at 191 (holding that the limitation against patenting an abstract idea cannot be circumvented by "attempting to limit the use of the formula to a particular technological environment," or by adding "insignificant postsolution activity" to transform a principle into a process). Limiting the use of the unpatentable Pythagorean theorem by claiming it could be usefully applied to surveying techniques would not make the invention patentable, *see Bilski I*, 545 F.3d at 957 (citing to *Flook*, 437 U.S. at 590), no more than limiting the concept of hedging to the energy and commodities markets. *See Bilski II*, 130 S. Ct. at 3231; *see also Cybersource*, 620 F. Supp. 2d at 1077. The method claims before the Court are not limited to any particular industry, but are supposedly limited by the use of a computer. As financial transactions, and the maintenance of accounts and/or records on a party's value or wealth, are increasingly likely to be monopolized by electronic and computer implementation and storage, the fact these claims are implemented electronically fails to limit the methods. *See Benson*, 409 U.S. at 71–72 (explaining that the practical effect of granting patent protection would be patenting an abstract idea since the algorithm before that court "ha[d] no substantial practical application except in connection with a digital computer"); *see also Ultramercial*, 2010 U.S. Dist. LEXIS 93453 at *18. The method claims before the Court are not limited by electronic implementation, and in looking at the method claims as a whole they would serve to patent the fundamental and abstract concept itself. *See Benson*, 409 U.S. at 71–2.

Similar to *Bilski II*, in which the Supreme Court invalidated the dependent claims which purported to limit hedging to be "broad examples of how hedging can be used in commodities and energy markets," *Bilski II*, 130 S. Ct. at 3231, the dependent claims of the '510 Patent and claim 34 of the '479 Patent, each when considered as a whole, constitute broad examples of potential

parties, institutions, obligations, and circumstances under which the exchange of obligations—each dependent claim is no more than an attempt to limit the abstract concept to a field of use or to limit the invention by adding token postsolution components.

Also, that the methods entail an irrevocable instruction, assumed to be electronic in nature, to require that exchange institutions adjust their accounts or records according to the exchange conducted by the supervisory institution is subsumed within the abstract idea itself, if not insignificant postsolution activity. *See Flook*, 437 U.S. at 590 ("The notion that post-solution activity, no matter how conventional or obvious in itself, can transform an unpatentable principle into a patentable process exalts form over substance."); *Bilski I*, 545 F.3d at 966 (noting that abstract hedging claims required "performing the post-solution step of consummating those transactions"). In claiming the abstract idea of using an intermediary to guarantee the exchange of obligations to minimize risk, the final action that the parties, or their account holders, be met with an irrevocable instruction to adjust their account or record to reflect the consummated transaction is no more an inherent and necessary step in the abstract idea, if not an obvious post-solution step.

The Court finds claims 33 and 34 of the '479 Patent and claims 1–75 of the '510 Patent invalid are not directed to patentable subject matter.[18] The Court gives Alice the broadest reasonable construction of claim terms for purposes of its conclusion, for a court can bypass construction if construing the claims is not a material issue in resolving the motion. *See National Presto Indus.*, 76 F.3d at 1189. We now move to the remaining system and product claims at issue.

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[18] While the Court presumes that claims 33 and 34 of the '479 Patent are implemented electronically, a finding that the claims require no computer implementation at all, a point CLS argues, would only bolster the Court's finding that the claims are abstract.

B. Computer System & Product Claims

The claims of the '720 and '375 Patents represent system and product claims. CLS contends that Alice simply recasts its abstract method claims in a physical embodiment in an attempt to employ the draftsman's art to save these claims from falling within the fundamental principles exceptions. Alice counters that these claims clearly fall within the category of inventions protected by the Patent Act and that there is no controlling precedent of courts finding a machine, a physical object made of parts, to be unpatentable as abstract.

1. Statutory Category

The claims of the '720 and '375 Patents are directed to either a machine or a manufacture under § 101. A "machine" is a "a concrete thing, consisting of parts, or of certain devices and combination of devices." *Nuijten*, 500 F.3d at 1355 (quoting *Burr*, 68 U.S. at 570). A machine "includes every mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result." *Id.* (quoting *Corning v. Burden*, 56 U.S. 252, 267 (1854)). A manufacture, on the other hand, is one or more articles prepared "for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery." *Id.* at 1356 (quoting *Chakrabarty*, 447 U.S. at 308). Machine and method claims differ: "A machine is a thing. A process [or method] is an act, or a mode of acting. The one is visible to the eye -- an object of perpetual observation. The other is a conception of the mind, seen only by its effects when being executed or performed." *Expanded Metal Co. v. Bradford*, 214 U.S. 366, 384 (1909) (citation omitted).

Each of the 84 claims in the '720 Patent is directed to a particular "data processing system" to enable an exchange of obligations. Every claim in the '720 Patent recites "a data storage

unit having stored therein" information about shadow accounts and/or records, and a "computer, coupled to said data storage unit," that is "configured" to perform steps of exchanging obligations similar to those laid out in the asserted method claims.[19] As an example, independent claim 1 of the '720 Patent claims a data storage unit with stored information about a shadow credit and debit record that is independent of accounts held by an exchange institution, and which is coupled with a computer configured to receive a transaction, electronically adjust the shadow credit and/or debit record to effect the exchange of an obligation if the value of the shadow debit record does not fall below the value of the shadow credit record, and generate an irrevocable instruction to an exchange institution to adjust its record(s) accordingly. *See* '720 Patent, col. 65:42–61. Essentially, the independent claims of the '720 Patent claim a computer that is configured to perform methods of exchanging an obligation, such as claims 1, 28, 60, and 68, or they claim methods of facilitating a purchase between parties, such as claims 64 and 80.

Similarly claims 1–38 and 42–47 of the '375 Patent are directed to a particular "data processing system" which enables the exchange of obligations. As with the claims in the '720 Patent, claims 1–38 and 42–47 of the '375 Patent each requires "a data storage unit having stored therein" information about accounts or records, and a "computer, coupled to said data storage unit," that is "configured" to perform certain steps of effecting an exchange obligation.[20] In contrast to the '720 Patent claims, the '375 Patent systems additionally claim a computer configured to "receive a

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[19] *See* '720 Patent, col. 65:42–61 (Claim 1); *id.* col. 67:1–18 (Claim 28); *id.* col. 68:33–53 (Claim 60); *id.* col. 68:62–66 & col. 69:1–11 (Claim 64); *id.* col. 69:20–42 (Claim 68); *id.* col. 70:20–37 (Claim 80) (collectively, the six independent claims of the '720 Patent).

[20] *See* '375 Patent, col. 65:1–30 (Claim 1); *id.* col. 66:1–29 (Claim 14); *id.* col. 66:61–65 & col. 67:1–26 (Claim 26) (collectively, the three independent system claims of the '375 Patent).

transaction" from a "first party device," a "second party device," and/or a "communications controller." *See, e.g.*, '375 Patent, col. 65:4 (Claim 1); *id.* col. 65:62 (Claim 12); *id.* col. 66:3 (Claim 14). The first or second party devices represent, as an example, "communications hardware products used by the stakeholders to communicate data or instructions to or from the processing units and are also referred to as stakeholder input/output devices." Ginsberg Decl. ¶ 53. "These may be personal computers [or] mini- or mainframe computers fitted with modems." *Id.* Separately, the "communications controller" effects communications between the devices and the computer system by performing communications coordination and/or by adding security processing for the instructions. *Id.* ¶ 54; *see also* '375 Patent, col. 7:46–54. Therefore, claims 1–38 and 42–47 of the '375 Patent add to the computer system claimed by the '720 Patent a mechanism by which parties independently may input the transaction(s) they wish the computer system to effectuate.

Independent claim 39 and dependent claims 40 and 41 of the '375 Patent are directed to a "computer program product" containing a particular program code. *See* '375 Patent, col. 68:5 (Claim 39); *id.* col. 68:36 (Claim 40); *id.* col. 68:38 (Claim 41). Each of these claims recites a "computer readable storage medium" having "computer readable program code embodied in the medium." *Id.* col. 65:5–7 (Claim 39). The parties appear to agree for the present that these claims represent a computer readable medium containing software that instructs a computer how to submit a transaction and allow a party to view information on the processing of the exchange of obligations by the supervisory institution, which mimics the methods claimed in the '510 Patent. *See* CLS Mem. 35; Alice Mem. 25.

The Court first determines whether these claims fall within the statutory class of inventions covered by § 101. At first glance, a computer is a concrete item made of parts that would

appear to fit clearly within the statutory protection afforded by § 101 as a machine, *see Nuijten*, 500 F.3d at 1355, so that every claim of the '720 Patent and claims 1–38 and 42–47 of the '375 Patent appear to fit within the § 101 categories.[21] Claims 39–41 of the '375 Patent are directed to a computer program product. The body of claim 39, from which claims 40 and 41 depend, recites "program code," which alone could be statutorily invalid as "an idea without physical embodiment," *see Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 449 (2007); however the preamble to claim 39 recites a computer readable storage medium containing a computer readable program. *See* '375 Patent, col. 65:5–7. A computer readable medium, such as a disk or hard drive, containing program code could be considered either a manufacture or a machine under § 101.[22] *See Nuijten*, 500 F.3d at 1355–56; *cf In re Beauregard*, 53 F.3d 1583 (Fed. Cir. 1995).

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[21] However, there is the possibility that if the '720 and '375 Patents system claims are only directed to a general purpose computer lacking specific programming, the general purpose computer claimed would not be considered a machine under § 101. *See* 35 U.S.C. § 101; *Alappat*, 33 F.3d at 1545 (holding a claim which read on a general purpose computer was a machine under § 101 because a "general purpose computer in effect becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software" thereby creating a "new machine" to qualify as a statutorily patentable invention under § 101). Although no specific software or program code is explicitly recited in the claims of the '720 Patent or claims 1–38 or 42–47 of the '375 Patent, the claims do state that a computer is "configured" to perform the functions. Therefore, assuming a broad construction of the claims, the Court assumes for purposes of these motions that the computer systems claimed have been specifically programmed and statutorily qualify as an machine under § 101.

[22] The Board of Patent Appeals and Interferences recently found that a computer program recorded on a computer-readable medium qualified statutorily for patent protection. "Computer programs and data structures are deemed 'functional descriptive material,' which impart functionality when employed as a computer component. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized." *Ex Parte Comer*, No. 2009-006782, 2010 WL 3626532, *4 (B.P.A.I. Sept. 16, 2010).

2. Abstract Idea Exception to Patentability

Assuming the claims of the '720 and '375 Patents are directed to machines or manufactures under § 101, the Court must still analyze these inventions under the exceptions for fundamental principles which apply to all four categories of § 101 patent eligible inventions. *See AT&T Corp. v. Excel Commc'ns*, 172 F.3d 1352, 1357–58 (Fed. Cir. 1999); *see also Benson*, 409 U.S. at 67–8; *In re Ferguson*, 558 F.3d 1359, 1363 (Fed. Cir. 2009).[23] The "specific question whether a machine represents nothing more than a law of nature, natural phenomenon, or abstract idea is unquestionably the correct one in light of *Bilski*." *Chamberlain Group, Inc. v. Lear Corp.*, No. 5-3449, 2010 U.S. Dist. LEXIS 124566, *80 n.13 (N.D. Ill. Nov. 24, 2010) (citing *Bilski II*, 130 S. Ct. at 3225); *see also id.* at *74–75.[24]

Alice holds up *State Street* to support its argument that its process and/or software

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[23] For instance, in *Alappat* the Federal Circuit also analyzed the machine claim before it under the fundamental principles exception to ensure that the claim did not simply recite a mathematical algorithm or an abstract idea. *See Alappat*, 33 F.3d at 1544. The Federal Circuit found the machine claim, as a whole, was not directed to an algorithm or abstract idea, in part by employing the "useful, concrete, and tangible result" test. *See id.* That the claim qualified as a machine statutorily, *see supra* note 21, was not determinative in the Circuit's analysis, however, of whether the claim was abstract. The Court reads the case to instruct that while programming a general purpose computer may be how a "machine" is adjusted to fit within the patent eligible categories of § 101, such programming does not immunize the claim from failing under the abstract idea analysis.

[24] "Labels are not determinative in § 101 inquiries. *Benson* applies equally whether an invention is claimed as an apparatus or process, because the form of the claim is often an exercise in drafting. Moreover, that the claimed computing system maybe a 'machine' within 'the ordinary sense of the word,' . . . is irrelevant." *State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 927 F. Supp. 502, 511 (D. Mass. 1996), *rev'd on other grounds*, 149 F.3d 1368. The Federal Circuit in *State Street* faulted the district court's conclusion in its abstract analysis, not that the district court actually applied the abstract analysis to the respondent's method and machine claims. The Circuit noted that "although we do not make this determination here, the judicially created exceptions, i.e., abstract ideas, laws of nature, etc., should be applicable to all categories of statutory subject matter, as our own precedent suggests." *State Street*, 149 F.3d at 1372 n.1 (citations omitted).

claims are directed to patent eligible subject matter. In *State Street*, the Federal Circuit reviewed machine claims under the abstract analysis and ultimately found the claims were patentable because they satisfied the "useful, concrete, and tangible result." *See State Street*, 149 F.3d at 1373. The Federal Circuit concluded, "[t]he question of whether a claim encompasses statutory subject matter should not focus on which of the four categories of subject matter a claim is directed to–process, machine, manufacture, or composition of matter–but rather on the essential characteristics of the subject matter, in particular, its practical utility." *Id.* at 1375. In analyzing the *State Street* claims, the Circuit did not note any potential preemptive effects of the claims, but focused only on the results produced by the claims. However, the "useful, concrete, and tangible result" test has been thoroughly rejected, *see Bilski II*, 130 S. Ct. at 3221, at least partly because its application proved too liberal in filtering out abstract claims. *See id.* at 3232 n.1 (Stevens, J. concurrence); *id.* at 3259 (Breyer, J. concurrence) (noting the "useful, concrete, and tangible result" test would, if taken literally, allow claims to be patentable where the Supreme Court has held to the contrary (citing cases, including *Flook*) and that the test "preceded the granting of patents that ranged from the somewhat ridiculous to the truly absurd") (internal citations and quotation marks omitted).

In the instant matter, the Court follows the reasoning of the Supreme Court in *Bilski II*, which concentrated not on the usefulness or practicality of claims, but on whether claims are directed to a fundamental concept as demonstrated, as least in part, by their preemptive force. *See id.* at 3231. Just as the claims in *Bilski II* were not saved from the abstract exception because they may have nominally claimed a "process" under § 101, nor can Alice's system or product claims be saved only by the fact they may nominally recite a "computer" or "manufacture."

CLS argues that the language of Alice's system and method claims are essentially one

and the same, merely replacing the term "supervisory institution" from the '510 Patent with an unspecified "computer" in every claim of the '720 Patent and claims 1–38 and 42–47 of the '375 Patent. *See* CLS Mem. 34. Accordingly, CLS argues the system claims in the '720 and '375 Patents represent nothing more than an attempt to recast an abstract method as tangible hardware to circumvent the limitations on subject matter eligibility. *See id.* at 34. Alice acknowledges the similarity, but disputes that the various claims are identical. *See* Ginsberg Decl. ¶ 52. The similarities are immediately apparent, even if not entirely identical. As an example, system claim 68 of the '720 Patent mimics the language of method claim 68 of the '510 Patent language in that the method steps are almost identical but the "supervisory institution" recited in method claim 68 of the '510 Patent is replaced by a "data processing system," or a computer, in the system claim. *Compare* '720 Patent, col. 69:20–42, *with* '510 Patent, col. 67:38–41 & col. 68:1–19; *see also* CLS Mem. 13.

The Court has found Alice's asserted method claims to be directed to an abstract concept. The system claims of the '720 Patent represent merely the incarnation of this abstract idea on a computer, without any further exposition or meaningful limitation. Although it is unsettled as to when a claim to a machine or manufacture is abstract,[25] the Court concludes that the system claims in the '720 Patent would preempt the use of the abstract concept of employing a neutral intermediary to facilitate simultaneous exchange of obligations in order to minimize risk on any computer, which

[25] *See, e.g., Ferguson*, 558 F.3d at 1367 (Newman, J., concurring) ("There are indeed many uncertainties remaining in this court's restructure of the legal framework of modern technology and its fruits. However, the potentially complex issues of when computers are *Bilski*-acceptable machines do not arise in the Ferguson claims. I agree that these issues require clarification, for uncertainty as to legal rights is as much a disincentive to commerce as is their deprivation. However, this case is not the appropriate vehicle for dictum of potentially large consequence.") (referring to *Bilski I*, 545 F.3d 943).

is, as a practical matter, how these processes are likely to be applied. *Cf. Alappat*, 33 F.3d at 1544 ("Indeed, [machine] claim 15 as written is not 'so abstract and sweeping' that it would 'wholly pre-empt' the use of any apparatus employing the combination of mathematical calculations recited therein.") (quoting *Benson*, 409 U.S. at 68–72). Unlike the machine claim in *Alappat*, the '720 Patent claims, as written, would wholly preempt the use of the abstract concept in any computer. Despite the fact that the '720 Patent system claims and Alice's asserted method claims are directed to different patent eligible categories under § 101, their preemptive effect would be largely one and the same. As the Court finds the '720 Patent claims are directed to the same abstract concept as the method claims, the reasoning underlying the abstract determination on the method claims applies with equal force to the claims of the '720 Patent. *See supra* Part III(A)(3).

The impact of the '720 Patent on common and everyday financial transactions speaks to its preemptive effect. Independent claims 1, 27, 60, and 68 of the '720 Patent mirror the fundamental concepts claimed by the '510 Patent. System claim 64, on the other hand, essentially enables a purchase between a buyer and seller, in which the system recited maintains a shadow account for a buyer and seller independent of those held by a bank, and the computer is configured to receive a transaction, adjust the accounts of the buyer and seller to effectuate the purchase if the accounts have sufficient value, and to generate an irrevocable instruction to the bank(s) to adjust their account(s) accordingly. *See* '720 Patent, col. 68:62–66 & col. 69:1–11. Such a "system" is simply an electronic intermediary that maintains its own shadow accounts to guarantee and effect purchases between parties. Claim 67, which depends from claim 64, further entails means "for allowing said buyer to acquire an item from said seller, wherein the purchase relates to said item." *Id.* col. 69:17–19. Independent claim 80 of the '720 Patent is directed to the same basic concept of

enabling a purchase by an electronic intermediary as claim 64, except it defines the stakeholders as a "first party" and a "second party" and refers to first or second accounts. *Id.* col. 70:20–37.

Chamberlain, a district court decision following *Bilski II*, well illustrates the issue here. The *Chamberlain* invention claimed a physical transmitter that sent out an encrypted signal to control an actuator (as part of a garage door opening system), which the court held was a machine under § 101. *See Chamberlain*, 2010 U.S. Dist. LEXIS 124566 at *73, 78–79. In analyzing the exception for fundamental principles, the court found the claims before it were not an attempt to patent a mere algorithm and that no preemption concerns were raised. *Id.* at *84. When viewed in the context of the entire claim, the algorithm was directed at a "physical product that is to be used for a specific purpose" and would not "preclude the use of the mathematical algorithms that operate within the transmitter for other purposes." *Id.* at *84–85. The court also noted that the physical transmitter was not simply insignificant extra-solution activity since "the machine, to the contrary, constitutes the very heart of the invention." *Id.* at 85.

The machine claims before the *Chamberlain* court stand in stark contrast to the '720 Patent claims before this Court. Here, preemption concerns of a basic concept across an unlimited field are preeminent. The system claims are not a specific and limited application of a general business concept, but instead seek to preempt the concept itself when employed by any computer coupled with a data storage unit. The system claims are no more limited than the method claims simply because they are directed to a data processing system. The effect of allowing these claims to be patentable would be to allow Alice "to pre-empt substantially all uses of th[e] fundamental principle." *Bilski I*, 545 F.3d at 953.

Further, the dependent claims of the '720 Patent only serve to limit the invention to

a field of use and are no more than token postsolution components. *See Bilski II*, 130 S. Ct. at 3231. The dependent claims merely demonstrate the all-encompassing nature of the steps, or methods, that the '720 Patent system claims are intended to implement. As with the dependent claims of the '510 Patent, the dependent claims of the '720 Patent describe a plethora of possible transactions or accounts that would be covered by the system,[26] what the "exchange institution" might be,[27] or circumstances under which the exchanges might be effectuated.[28]

While not dispositive for this analysis, it is worthwhile to note that the dependent claims of the '720 Patent recite details to flesh out the steps, parties, and circumstances under which obligations are to be exchanged—mirroring the '510 Patent dependent claims—but do not further describe or limit the claimed data processing system as a machine. Unlike the machine claims in *Chamberlain*, the steps of exchanging an obligation (and not the computer system claimed) are the

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[26] *See, e.g.*, '720 Patent, col. 65:64–65 ("transaction linked to a share price") (Claim 2); *id.* col. 65:28 ("weather event") (Claim 3); *id.* col. 66:3 ("market event") (Claim 4); *id.* col. 66:5–6 ("transfer of shares in financial or physical assets") (Claim 5); *id.* col. 66:10 ("transfer of a commodity") (Claim 7); *id.* col. 66:13 ("money for goods, services, promises, credits or warrants") (Claim 8); *id.* col. 66:64–67 ("claim 1, further comprising means for allowing said party to acquire an item from another party, wherein the exchange obligation relates to said item") (Claim 27); *id.* col. 70:1–2 ("exchange obligation involves currency") (Claim 74).

[27] *See, e.g.*, '720 Patent, col. 66:22 ("a credit card company") (Claim 12); *id.* col. 66:24 ("a debit card company") (Claim 13); *id.* col. 66:26 ("bank") (Claim 14); *id.* col. 69:44 ("central bank") (Claim 69); *id.* col. 70:3–5 ("non-bank clearing house or depository") (Claim 75).

[28] *See, e.g.*, '720 Patent, col. 66:38–40 (where exchange institutions operate in different times zones) (Claim 19); *id.* col. 66:41–43 (where exchange institutions have different processing cycles) (Claim 20); *id.* col. 66:47–50 (where "said data storage unit has stored therein a balance for said shadow credit record and/or shadow record obtained from said exchange institution") (Claim 22); *id.* col. 70:41–42 (instruction is generated at the end of the day) (Claim 82).

true "heart" of Alice's invention. *Cf. Chamberlain*, 2010 U.S. Dist. LEXIS 124566 at *85.[29] The Court looks to what, at base, is claimed by the '720 Patent claims—and that is an abstract concept. The Court agrees with CLS that, in these circumstances, "a computer system merely 'configured' to implement an abstract method is no more patentable than an abstract method that is simply 'electronically' implemented." CLS Reply 31; *see also Kuno*, 2010 WL 5127425 at *10 (finding machine and manufacture claims abstract and noting that "[i]n essence, these claims merely recite a general purpose computing device intended to facilitate the future execution of the recited [algorithms] similar to those in the independent method claims that we found to be ineligible under § 101").[30]

The Court also applies this analysis and result to system claims 1–38 and 42–47 of the '375 Patent. Although these claims recite an additional component of allowing stakeholders an ability to transmit requested transactions directly to the computer system via a "first party device," a "second party device," or a "communications controller,"[31] the claims simply indicate that the stakeholders can interact with the computer system, without intermediaries, and that the computer system itself will ultimately effect the exchange of obligations. That the parties can directly input

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[29] *See also* Ginsberg Decl. ¶ 52 (speaking of the '720 and '375 Patents, noting that "at a general level, the basic settlement operations could be performed without the aid of a computer if they were not so claimed").

[30] To be clear, the Court does not hold that Alice's process claims in the '720 Patent fail to recite patent eligible subject matter because they mimic the asserted method claims in the '479 and '510 Patents. The Court finds the '720 Patent process claims when considered as a whole to be unpatentable because, similar to the method claims they mimic, they are directed to an abstract concept.

[31] *See, e.g.*, '375 Patent, col. 65:4 (Claim 1); *id.* col. 65:62 (Claim 12); *id.* col. 66:3 (Claim 14) (respectively).

desired transactions using modems, land line phones, a fax machine, or otherwise, *see* '375 Patent, col. 7:55–67 & col. 8:1–5, to reach a "communications controller" represents token "postsolution components" and fails to make the claims patentable. *See Bilski II*, 130 S. Ct. at 3231. The "fact that the claim requires the identified transactions actually to be made does no more to alter the character of the claim as a whole." *Bilski I*, 545 F.3d at 965.

The dependent claims at most attempt to limit the fundamental concept to a field of use, by defining the "obligations" that are to be exchanged, the conditions under which obligations are to be exchanged, and/or the respective parties and institutions to the transaction. At the heart of these claims is the same fundamental concept of employing a neutral intermediary to facilitate a simultaneous and irrevocable exchange of obligations in order to minimize risk. The system claims in the '375 Patent recite no more specific or limited application of the fundamental concept than the claims already addressed.

Lastly, the three program claims in the '375 Patent are also directed to the same abstract concept despite the fact they nominally recite a different category of invention under § 101 than the other claims asserted by Alice. Claim 39 recites "program code" to cause a computer to allow a party to send a transaction relating to "an exchange obligation arising from a currency exchange transaction between" a first and second party. '375 Patent, col. 68:10–12, 14. The program code also causes the computer to allow a party to view information relating to the "processing" of the obligation exchange by a supervisory institution. *Id.* col. 68:15. The processing that one can view by way of the program code constitutes the general steps of exchanging an obligation that arise in the other Patents, i.e., maintaining information about the parties' accounts, electronically adjusting the accounts to effect the exchange obligation, and generating an irrevocable

instruction to the exchange institutions. *Id.* col. 68:17–35. CLS argues that claims 39–41 of the '375 Patent do no more than mirror method claim 68 of the '510 Patent, except that the computer program allows a party, by computer, to send a transaction and view information relating to the method claims. CLS Mem. 35. It is true that independent claim 39 recites as part of the claim a process almost identical to a method claimed in the '510 Patent. *Compare* '375 Patent, col. 68:17–35, *with* '510 Patent, col. 68:1–19.

To be sure, the application of an abstract idea does not render a claim unpatentable under § 101, *see Diehr*, 450 U.S. at 187, however these claims seek to claim the fundamental concept itself, and not a limited or specific application of the concept. Claims 39–41 of the '375 Patent allow a party to use a computer to submit a preferred transaction—the first and necessarily inherent step in the fundamental concept of employing an intermediary to facilitate a simultaneous and irrevocable exchange of obligations to minimize risk—and then to observe the processing, or implementation, of the fundamental concept itself. The additional elements of programming to allow a party to submit a transaction and view the exchange does little to mitigate the preemptive effect of these claims on the fundamental concept. Moreover, dependent claim 40 does no more than attempt to limit the invention to a field of use by confining the submitted "transaction" to one that involves currency, *see* '375 Patent, col. 68:37, and claim 41 similarly attempts to limit the claim by only allowing a party to view preauthorized information relating to the processing. *Id.* col. 68:38–41. These two dependent claims represent no more than "broad examples" of how the fundamental concept can be applied and implemented. *See Bilski II*, 130 S. Ct. at 3231.

IV. CONCLUSION

For the foregoing reasons, the Court will grant CLS's motion for summary judgment.

The Court finds claims 33 and 34 of the '479 Patent and each claim of the '510 Patent, '720 Patent, and '375 Patent to be directed to an abstract idea under the *Benson*, *Flook*, *Diehr*, and *Bilski* Supreme Court line of precedent. Accordingly, these claims are invalid as being directed to patent-ineligible subject matter under § 101 of the Patent Act. A memorializing Order accompanies this Memorandum Opinion.

Date: March 9, 2011

/s/
ROSEMARY M. COLLYER
United States District Judge

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.

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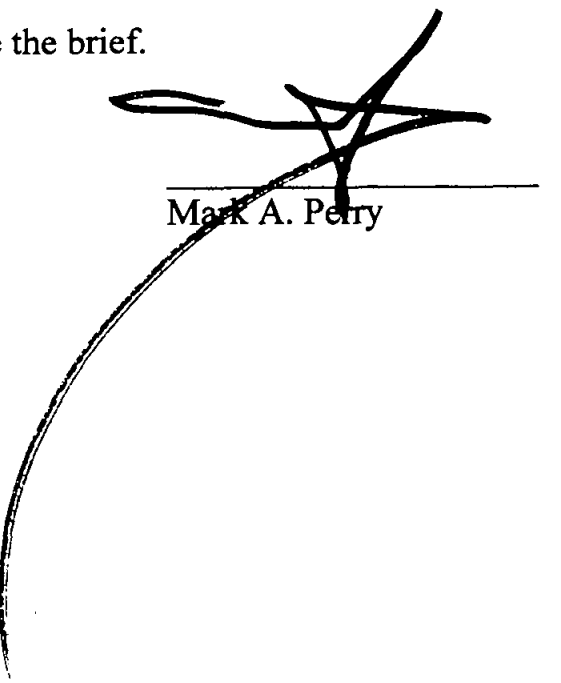
CERTIFICATE OF COMPLIANCE

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)