

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

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CLS BANK INTERNATIONAL,)	
)	
Plaintiff,)	
)	Case No. 07-CV-00974-RMC
v.)	
)	
ALICE CORPORATION PTY. LTD.,)	
)	
Defendant.)	
<hr/>)	
)	
ALICE CORPORATION PTY. LTD.,)	
)	
Counterclaim-Plaintiff,)	
)	
v.)	
)	
CLS BANK INTERNATIONAL,)	
)	
Counterclaim-Defendant,)	
)	
And)	
)	
CLS SERVICES LTD.,)	
)	
Counterclaim-Defendant.)	
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**MEMORANDUM IN SUPPORT OF CLS' MOTION FOR SUMMARY JUDGMENT
THAT THE CLAIMS OF ALICE'S PATENTS ARE INVALID
FOR LACK OF PATENTABLE SUBJECT MATTER**

TABLE OF CONTENTS

	<u>Page</u>
PRELIMINARY STATEMENT	1
STATEMENT OF FACTS	3
A. Common Elements Of The Alice Patent Claims	3
B. The '479 Patent	6
C. The '510 Patent	7
D. The '720 Patent	10
E. The Dependent Claims Of The '479, '510 And '720 Patents	13
ARGUMENT: THE CLAIMS OF THE ALICE PATENTS DO NOT RECITE PATENTABLE SUBJECT MATTER UNDER SECTION 101	15
I. MENTAL PROCESSES, ABSTRACT INTELLECTUAL CONCEPTS AND LEGAL RELATIONSHIPS ARE NOT PATENTABLE	15
II. ALICE'S METHOD CLAIMS ARE NOT DRAWN TO PATENTABLE SUBJECT MATTER.	16
A. Alice's Claims Are Drawn To An Unpatentable Algorithm That Does Not Transform Any Particular Object Into A Different State Or Thing	16
B. Adjusting Accounts Is Not A Transformation That Renders Alice's Claims Patentable	19
C. Providing Or Generating An Instruction That Is An "Irrevocable, Time- Invariant Obligation" Is Not A Transformation That Renders Alice's Claims Patentable	20
D. The Added Requirement In The Claims Of The '510 Patent That Accounts/Shadow Records Be Adjusted "Electronically" Does Not Render The Subject Matter Of Those Claims Patentable	22
III. ALICE'S SYSTEM CLAIMS ARE NOT DRAWN TO PATENTABLE SUBJECT MATTER.	25
IV. THE DEPENDENT CLAIMS OF THE ALICE PATENTS ARE NOT DRAWN TO PATENTABLE SUBJECT MATTER.	28
CONCLUSION	30
APPENDICES	31

TABLE OF AUTHORITIES

Page(s)

FEDERAL CASES

AT & T Corp. v. Excel Commc'ns, Inc.,
172 F.3d 1352 (Fed. Cir. 1999).....25

**In re Bilski*,
545 F.3d 943 (Fed. Cir. 2008)..... *passim*

Ex parte Bowman,
61 U.S.P.Q.2d 1669 (B.P.A.I. 2001).....23

In re Comiskey,
554 F.3d 967 (Fed. Cir. 2009).....15, 16, 26

Ex parte Cornea-Hasegan,
2009 WL 86725 (B.P.A.I. Jan. 13, 2009)27

Diamond v. Diehr,
450 U.S. 175 (1981).....15, 16, 20, 29

In re Ferguson,
No. 2007-1232, __ F.3d __ (Fed. Cir. Mar. 6, 2009)..... 26-27

Fort Props., Inc. v. Am. Master Lease, L.L.C.
2009 WL 249205 (C.D. Cal. Jan. 22, 2009)21, 22, 28

**Gottschalk v. Benson*,
409 U.S. 63 (1972)..... *passim*

In re Grams,
888 F.2d 835 (Fed. Cir. 1989).....16

Ex parte Gutta,
2009 WL 112393 (B.P.A.I. Jan. 15, 2009)24

In re Meyer,
688 F.2d 789 (C.C.P.A. 1982)16

O'Reilly v. Morse,
56 U.S. 62 (1853).....24

**Parker v. Flook*,
437 U.S. 584 (1978)..... *passim*

**In re Schrader*,
22 F.3d 290 (Fed. Cir. 1994).....19, 20

State Street Bank & Trust Co. v. Signature Fin. Group, Inc.,
149 F.3d 1368 (Fed. Cir. 1998).....26, 27

In re Warmerdam,
33 F.3d 1354 (Fed. Cir. 1994).....22

FEDERAL STATUTES

35 U.S.C. § 100(b)15

35 U.S.C. § 10115

35 U.S.C. § 112.....9, 27

MISCELLANEOUS

Manual of Patent Examining Procedure (2008).....9

Plaintiff and Counterclaim Defendant CLS Bank International and Counterclaim Defendant CLS Services Ltd. (collectively, “CLS”) respectfully submit this memorandum in support of their motion for summary judgment that the claims of the Alice patents at issue in this litigation -- claims 33 and 34 of U.S. Patent Nos. 5,970,479 (Ex. 1, “479 patent”), claims 1-75 of U.S. Patent No. 6,912,510 (Ex. 2, “510 patent”), and claims 1-84 of U.S. Patent No. 7,149,720 (Ex. 3, “720 patent”) (collectively, the “Alice Patents”) -- are invalid because the inventions they purport to claim do not fall within the scope of patentable subject matter provided by 35 U.S.C. § 101.¹

PRELIMINARY STATEMENT

Alice has three patents at issue in this litigation that are directed to “methods” and “systems” for “exchanging an obligation.” These methods and systems purport to address the settlement of transactions between parties -- the exchange of respective obligations by which a transaction is culminated. As Alice explained in a memorandum to this Court dated May 19, 2008 (the “Alice Mem.”) (D.I. 27), its inventions purportedly reduce the risk associated with such an exchange by performing a mathematical test on the transaction, evaluating each party’s respective ability to perform, allowing only those transactions that pass the test, and then mandating (by means of an “irrevocable” instruction) that the exchange “occurs simultaneously and cannot be undone by either party.” (Alice Mem. at 7.)

The Supreme Court and the Federal Circuit have long held that certain types of claims directed to abstractions such as mathematical algorithms or legal obligations, like those asserted by Alice here, are excluded from the scope of patentable subject matter permitted by statute. The Federal Circuit recently held, in *In re Bilski*, 545 F.3d 943, 955 (Fed. Cir. 2008), that claims

¹ “Ex. ___” is used herein to refer to the exhibits to the Declaration of Abigail Langsam, submitted herewith.

directed to such subject matter are not patentable unless the claimed invention (1) is “tied to a particular machine or apparatus” or (2) “transforms a particular article into a different state or thing.” In so holding, the court abrogated other tests that had previously been used to determine the limits of patentable subject matter.

Alice’s claims do not meet the *Bilski* test and for this reason, summary judgment of invalidity should be granted to CLS.

As to the first prong, Alice’s claims are not tied to any particular machine.

As to the “transformation” part of the test, in *Bilski* the court expressly held that purported transformations involving “transactions” or legal “obligations” do not render a claim to an algorithm patentable. *Id.* at 963-64. The inventions claimed of the Alice Patents are expressly directed to such unpatentable activities. The inventions claimed in the Alice patents simply do not “transform an object into a different state or thing” in the manner required by *Bilski*.

Alice’s efforts to avoid unpatentability of its claims merely highlight why they are invalid. For example, during prosecution of the ’501 patent, the patent office warned Alice that its claims were not directed to patentable subject matter. In response, Alice added a requirement to the method claims in the ’510 patent mandating that one step in the method be performed “electronically,” in order to bring its claims within the scope of the “technical arts,” a test for patentability that was then used in some cases. However, *Bilski* held that the “technical arts” test cannot establish patentability. *Id.* at 960.

Alice also sought to render its claims patentable by rewriting its ’510 patent method claims in the form of claims to a general purpose computer, configured to carry out the same methods. But Supreme Court precedent, as well as the principles enunciated in *Bilski*, establish that merely placing unpatentable subject matter on a general purpose computer does not make it

patentable, unless doing so places a “meaningful limitation” on the method. Here, the addition of an otherwise unspecified computer to Alice’s method claims does not place any meaningful limit on the method at all.

Finally, the Alice patents include dependent claims that add additional limitations as to the type of transactions, accounts, parties and institutions with which its inventions may be used. However, it is well established that merely adding such “field of use” limitations to an otherwise unpatentable claim does not bring the claim within the scope of statutory subject matter.

In short, summary judgment of invalidity of the claims of the Alice Patent should be granted, because neither Alice’s method claims nor its system claims are directed to patentable subject matter.

STATEMENT OF FACTS

Claims 33 and 34 of the ’479 patent and claims 1-75 of the ’510 patent claim purported methods for exchanging an obligation between parties to a transaction. Claims 1-84 of the ’720 patent claim “data processing systems” for exchanging an obligation, where the claimed systems are computers and data storage devices configured to perform the methods claimed in the ’479 and ’510 patents. (*Compare, e.g.*, claims 1, 27, 61, 65, and 68 of Ex. 2, ’510 patent *with* claims 1, 28, 60, 64, 68, and 80 of Ex. 3, ’720 patent.) According to Alice, the purpose of the invention is to ensure that the exchange is “simultaneous and irrevocable.” (Alice Mem. at 6.)

A. Common Elements Of The Alice Patent Claims

Alice summarized the inventions claimed in its patents as follows: An entity, sometimes called a “supervisory institution,” “maintain[s] an account for each party . . . that is independent of the parties’ own . . . accounts” with another institution, sometimes called an “exchange

institution.”² (Alice Mem. at 6, 7; *see also, e.g.*, Ex. 1, ’479 patent at claim 33.) One example of an exchange institution is a bank, including a central bank such as the Federal Reserve. (Alice Mem. at 6, 7; *see also, e.g.*, Ex. 2, ’510 patent, claims 15, 58.)

As Alice explained, the supervisory institution receives data relating to a transaction or exchange obligation -- for example the “exchange [of] \$1,000,000 for an equivalent amount of Yen” (Alice Mem. at 7 (“supervisory institution waits for a transaction to be received”).) Then, if, and only if, the parties have enough in their respective accounts, the supervisory institution debits or credits those accounts to reflect the transaction. (*Id.* (“After ensuring the parties have adequate value in their respective [supervisory institution] accounts, the supervisory institution adjusts these accounts to reflect the exchange”).) “It [the supervisory institution] then instructs” the exchange institution to adjust parties exchange institution accounts, respectively, “in accordance with the adjustment made to the [supervisory institution] accounts” (*Id.*) Finally, and “[m]ost importantly,” as Alice explained, is the legal requirement that “the adjustment of [the parties’] accounts at the supervisory institution and the instruction from the supervisory institution to [the exchange institutions] are irrevocable and the instruction, once received, must be honored by both central banks.” (*Id.*)

Thus, the claims of the Alice patents at issue in this litigation have key common elements, as shown in Table 1, *infra* at 5-6 for exemplary claims from each patent. First, “accounts” or “shadow records” -- numbers -- are maintained by an entity or system³ separate

² In the claims of the Alice Patents the accounts maintained by the supervisory institution are sometimes called “shadow records” because of their relationship to accounts maintained by an exchange institution. (*See, e.g.*, Ex. 1 ’479 patent at col. 25, lines 13-17.)

³ In the method claims of the ’510 and ’479 patents, the entity is generally called a “supervisory institution.” In the system claims of the ’720 patent, the supervisory institution is replaced by a “data processing system.” (*Compare, e.g.*, claim 1 of Ex. 2, ’510 patent (“supervisory institution . . . maintaining a shadow credit record and a

from accounts or records maintained by another entity, generally called an exchange institution. Second, information about a transaction or exchange is received by the entity or system that maintains the accounts/shadow records. Third, the accounts/shadow records are mathematically tested in light of the transaction and adjusted according to an algorithm. This ensures that the adjustment occurs only when appropriate in light of the magnitude of the account/shadow records; a transaction that would reduce the account/shadow record below a particular level is not processed. Finally, an “irrevocable and time invariant instruction” -- a legal mandate -- is issued to adjust the accounts or records at another institution according to the adjustment of the accounts/shadow records. See Table 1 below comparing the claims of the Alice Patents.

Table 1 -- Common Elements of the Claims of the Alice Patents

<i>Element</i>	<i>Ex. 1, '479 Patent Claim 33</i>	<i>Ex. 2, '510 Patent Claim 68</i>	<i>Ex. 3, '720 Patent Claim 68</i>
The claim involves a method or system for exchanging an obligation between parties	<i>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:</i>	<i>A method of exchanging an obligation between parties, wherein an exchange obligation is administered by a supervisory institution, the method performed by the supervisory institution, comprising:</i>	<i>A data processing system to enable the exchange of an obligation between parties, the system comprising:</i>
Accounts or records regarding parties to a transaction are maintained by one entity/system separate from accounts or records maintained by another entity.	(a) <i>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;</i> (b) <i>obtaining from each exchange institution a start-of-day balance for each shadow credit record and shadow debit record;</i>	<i>maintaining a first account for a first party, independent from a second account maintained by a first exchange institution;</i> <i>maintaining a third account for a second party, independent from a fourth account maintained by a second exchange institution</i>	<i>a data storage unit having stored therein (a) information about a first account for a first party, independent from a second account maintained by a first exchange institution, (b) information about a third account for a second party, independent from a fourth account maintained by a second exchange institution; and</i>
Information about a transaction is received.	(c) <i>for every transaction resulting in an exchange obligation,</i>	<i>wherein an exchange obligation is administered by a supervisory institution [from claim preamble]</i>	<i>a computer, coupled to said data storage unit, that is configured to (a) receive a transaction;</i>

shadow debit record for a party”) with claim 1 of Ex. 3, '720 patent (“data processing system [with] a data storage unit having stored therein information about a shadow credit record and shadow debit record for a party”).)

<i>Element</i>	<i>Ex. 1, '479 Patent Claim 33</i>	<i>Ex. 2, '510 Patent Claim 68</i>	<i>Ex. 3, '720 Patent Claim 68</i>
Accounts or records are mathematically tested based on the transaction and adjusted if appropriate in light of the transaction and the magnitude of the accounts/records.	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	electronically adjusting said first account and said third account in order to effect the exchange obligation between said first party and said second party after ensuring that said first party and said second party have adequate value in said first account and said third account, respectively; and	(b) electronically adjust said first account and said third account in order to effect an exchange obligation arising from said transaction between said first party and said second party after ensuring that said first party and/or said second party have adequate value in said first account and/or said third account, respectively; and
An "irrevocable, time invariant instruction" to adjust accounts or records is provided.	(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.	providing an instruction to said first exchange institution and said second exchange institution to adjust said second account and said fourth account in accordance with the adjustment of said first account and said third account, wherein said instruction being an irrevocable, time invariant obligation placed on said first exchange institution and said second exchange institution.	(c) generate an instruction to said first exchange institution and/or said second exchange institution to adjust said second account and/or said fourth account in accordance with the adjustment of said first account and/or said third account, wherein said instruction being an irrevocable, time invariant obligation placed on said first exchange institution and/or said second exchange institution.

B. The '479 Patent

Each of these common elements is present in the first claim to issue that is asserted here, claim 33 of the '479 patent.⁴ Claim 33 is expressly directed to a "method of exchanging obligations as between parties" that is performed by a "supervisory institution." (Ex. 1, '479 patent at claim 33.) The supervisory institution maintains ("held") a "shadow credit record" and a "shadow debit record" for each party. (*Id.*) For each "exchange obligation," or transaction, received by the supervisory institution, it "adjust[s]" these shadow records to reflect the transaction, so long as doing so will not "result in the value of the shadow debit record being less than the value of the shadow credit record at any time." (*Id.*) At "the end-of-day," the supervisory institution "instruct[s]" certain "exchange institutions," which also hold credit and debit records for the parties, to adjust the exchange institution's records to reflect the adjustments

⁴ The application that led to the '479 patent was filed on May 28, 1993, and the patent issued on October 19, 1999.

to the supervisory institution's shadow records for "permitted transactions" throughout the day. (*Id.* (instruction "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").) According to the claim, such adjustments must be made because "the credits and debits [are] irrevocable, time invariant obligations placed on the exchange institutions." (*Id.*)

C. The '510 Patent

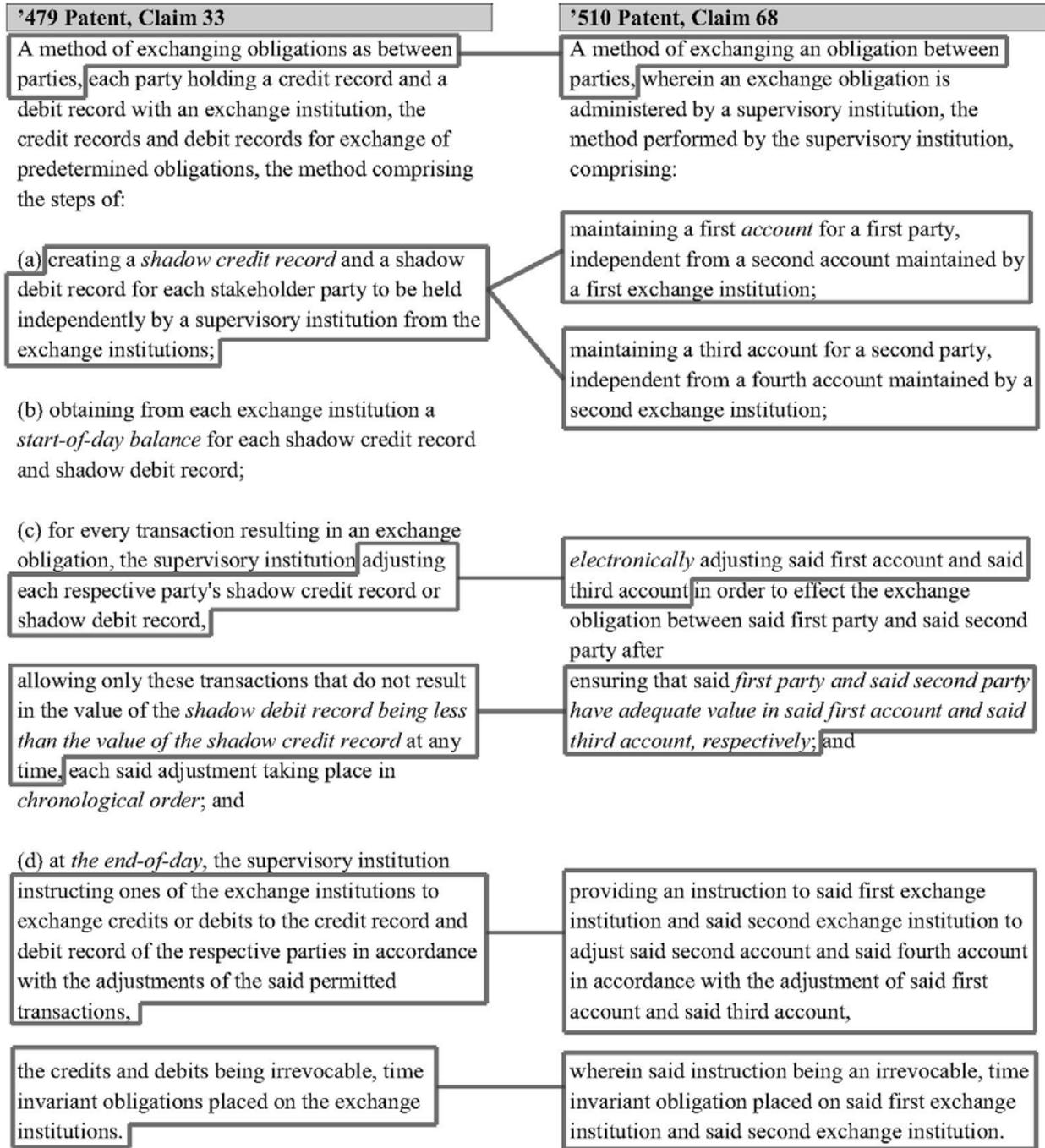
Each of the common elements described above is also present in the claims of the '510 patent. In fact, each of the independent claims of the '510 patent (claims 1, 27, 61, 65, and 68) is only a slight variation on the method of claim 33 of the '479 patent.⁵ For example, as shown in Figure 1, *infra* at 8, claim 68, the broadest claim of the '510 patent, is very similar to claim 33 of the '479 patent except that claim 68 (a) replaces the term "shadow records" of claim 33 of the '479 patent with "accounts"; (b) discards the limitation in claim 33 that requires "obtaining . . . a start-of-day balance" for the accounts; (c) revises the algorithm to permit only transactions that leave those accounts with "adequate value," rather than using a test based on the relative value of the shadow debit and credit records; (d) provides that the "accounts" are adjusted "electronically";⁶ and (e) while retaining the requirement for an "irrevocable, time invariant obligation," removes the requirement that it be provided at the "end-of-day." (*See* Ex. 2, '510 patent at claim 68.)⁷

⁵ The application that led to the '510 patent was filed on May 9, 2000, and the patent issued on June 28, 2005.

⁶ The limitation that accounts or shadow records be "electronically adjust[ed]" is found in each claim of the '510 patent, but not in claims 33 or 34 of the '479 patent.

⁷ To take another example, claim 1 of the '510 patent is materially identical to claim 33 of the '479 patent, except that claim 1 (a) discards the limitation in claim 33 that requires "obtaining . . . a start-of-day balance for each shadow credit record and shadow debit record"; (b) provides the instruction "at the end of a period of time" instead of "at the

Figure 1 '479 Patent, Claim 33 vs. '510 Patent, Claim 68



* italics denote elements that differ between the two claims

end-of-day”; and (c) specifies that the shadow records are adjusted “electronically.” See Appendix A, *infra* at 33.

The U.S. Patent Office (“PTO”) found, and Alice implicitly admitted, that there is no patentable distinction between claim 33 of the ’479 patent and the independent claims of the ’510 patent.⁸ The PTO originally rejected all of the independent claims under the “judicially created doctrine of double patenting,” because, it found, the subject matter of these claims was “fully disclosed in the [’479] patent, so that the claims, “if allowed, would improperly extend the ‘right to exclude’ already granted in the [’479] patent.” (*See* Ex. 4, Office Action, dated 9/3/03 at 6.)⁹ The examiner found that claim 33 of the ’479 patent and the claims in the application that led to the ’510 patent were “claiming common subject matter” -- the common elements of the Alice claims described above -- specifically:

A method of exchanging obligations comprising the steps of (a) maintaining a shadow credit record and a shadow debit record, (b) adjusting each respective party’s shadow credit record or shadow debit record, 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 at any time, and (c) the supervisory institution instructing ones of the exchange institutions to exchange credit or debits to the credit record or debit record in accordance with the adjustments of the permitted transactions.

(Ex. 4, Office Action, dated 9/3/03 at 6.)¹⁰ Alice did not object to the PTO examiner’s double patenting rejection, and instead executed a “terminal disclaimer” agreeing that the claims of the

⁸ In patent parlance, an “independent” claim is one that can stand on its own. In contrast, under PTO regulations, a dependent claim “must contain a reference” to an independent claim in the same patent, “incorporate by reference all the limitations of [the independent] claim to which [it] refers,” and “specify a further limitation of the subject matter” of the independent claim. 35 U.S.C. § 112.

⁹ Under PTO procedures, rejection based on “the judicially created doctrine of double patenting” is required when “the claimed subject matter [in an application] is not patentably distinct from the subject matter claimed in a commonly owned patent.” (Ex. 9, Manual of Patent Examining Procedure (2008) § 804.) A new claim is rejected for double patenting when it is “merely an obvious variation” of an invention claimed in a previous patent. (*Id.*)

¹⁰ The claims that were rejected were materially the same as those which ultimately issued in the ’510 patent except that they lacked the limitation requiring that a final “irrevocable,

'510 patent would expire at the same time as those of the '479 patent. (*See* Ex. 5, Amendment and Reply Under 37 C.F.R. § 1.111, dated 10/31/03 at 22; Ex. 6, Terminal Disclaimer To Obviate A Double Patenting Rejection Over A Prior Patent, dated 10/31/03.)

D. The '720 Patent

Each of the common elements described above is also present in the claims of the '720 patent. (*See* Table 1, *supra* at 5-6.) However, the '720 patent differs from the '479 and '510 patents in that each of its independent claims is expressly directed to a “data processing system” comprised of “a data storage unit” and “a computer, coupled to said data storage unit.” (*See* Ex. 3, '720 patent at claims 1, 28, 60, 64, 68, and 80.)¹¹ In each claim, the “data processing system” plays the role of the supervisory institution of the '479 and '510 patents, in that it is configured to maintain and adjust account/shadow record information, run an algorithm to determine permitted transactions based on transaction information and the magnitude of the accounts/shadow records for each party, and generate an “instruction” that is an “irrevocable, time-invariant obligation” on another entity or institution. (*See id.*)

For example, claim 68 of the '720 patent is directed to a “data processing system” configured to carry out the method of claim 68 of the '510 patent. (*See* Figure 2, *infra* at 11.) In claim 68 of the '720 patent, the “data storage unit” stores “information about a first account for a first party, independent from a second account maintained by a first exchange institution.” (*See* Ex. 3, '720 patent at claim 68.) The “computer, coupled to said data storage unit” is then configured to “(a) receive a transaction”; “(b) electronically adjust” the parties’ accounts “to effect an exchange obligation” arising from the transaction “after ensuring that the “first party

time invariant” instruction. That limitation was added by the patentee in a later amendment before the '510 patent issued.

¹¹ The application that led to the '720 patent was filed on December 31, 2002, and the patent issued on December 12, 2006.

Comparison of the other independent claims of the '720 and '510 patents shows how closely intertwined those claims are as well. For example, claim 1 of the '720 patent claims a data processing system configured to perform the method of claim 1 of the '510 patent. *See* Appendix B, *infra* at 33. In similar fashion, the systems of claim 28 and claim 60 of the '720 patent perform the methods of claim 27 and 61 of the '510 patent, respectively, while claims 64 and 80 of the '720 patent perform the method of claim 65 of the '510 patent. *See* Appendices C-E, *infra* at 34-36.

The similarity between the system claims of the '720 patent and the method claims of the '510 patent was not lost on the PTO. The claims of the '720 patent were initially rejected for double patenting over each of the claims of the '510 patent. (Ex. 7, Office Action, dated 12/28/05 at 2.; *see also supra* at note 9 (discussing double patenting).) As the examiner stated, "Although the . . . claims are not identical [to those in the '510 patent], they are not patentably distinct . . . because [the claims of the '720 patent] are the same method for intended use as claims 1-75 of [the '510 patent]." (*Id.*) The examiner noted that "[t]he additional limitation disclose[d] by [the application that led to the '720 patent] is 'a data processing system and a data storage unit' while all the other limitations in [the application claims] are the same as claims 1-75 of [the '510 patent]." (*Id.*) The claims were allowed only after Alice executed a terminal disclaimer so that the claims of the '720 patent would expire at the same time as those in the '510 patent.¹² (*See* Ex. 5, Amendment and Reply Under 37 C.F.R. § 1.111, dated 1/27/06 at 50; Ex. 8, Terminal Disclaimer To Obviate A Double Patenting Rejection Over A Prior Patent, dated 1/27/06.)

¹² Because, as explained *supra* at 9-10, the examiner had previously found that the claims of the '510 patent were not patentably distinct from claim 33 of the '479 patent, and therefore required a terminal disclaimer, the claims of all three patents expire on the same date.

E. The Dependent Claims Of The '479, '510 And '720 Patents

The three Alice patents, in addition to 12 independent claims, also include 149 independent claims. For example, claim 34 of the '479 patent provides only that the instruction issued by the supervisory institution in claim 33 “represents credits and debits netted throughout the day for each party in respect of all the transactions of that day.” (Ex. 1, '479 patent at claim 34.) More generally, the dependent claims of the Alice Patents only add additional limitations on the field of use of the claimed invention. As shown in Table 2, these include limitations on the type of obligation or transaction on which the invention may be used, on the nature of the exchange institution, on the nature of the parties, on the “irrevocable, time-invariant” instruction, and on the type of data recorded in the account or shadow record. (*See id.*)

Table 2 -- Limitations Added by Dependent Claims of the '479, '510, and '720 Patents

	Dependent Claims		
	'479 Patent	'510 Patent	'720 Patent
Limitations on type of exchange “obligation” or “transaction”			
“arises out of” a “share price”		2	2
“arises out of” or “involves” a “weather event”		3, 41	3, 42
“arises out of” or “involves” a “market event”		4, 42	4, 43
“involves” the “transfer of shares in financial or physical assets”		5	5
“involves” a “wager”		6, 43	6, 44
“involves” the “transfer of a commodity”		7	7
“arises out of” or “involves” “money for goods, services, promises, credits or warrants”		8, 44	8, 45
“arises out of” or “involves” “currency”		18, 54, 72	18, 54, 70, 74
“arises out of” a “collateralization payment”		21, 40	21, 41
relates to “acquir[ing] an item from” another party”			27, 59, 67, 79, 84
Limitations on “irrevocable, time invariant” instruction			
“period of time” for which instruction is provided is a “part of a day”		9, 53, 67	9, 53, 66, 77
based on “netted” transactions	34	11, 52, 75	11, 55, 78

provided at “an end of a processing cycle”		64	63
“generated at the end of a day”			82
Limitations on algorithm or test for adjusting accounts or shadow records			
applied to transaction in “chronological order”		10, 62	10, 61
includes “debiting and/or crediting . . . shadow record based on . . . transaction”		39	40
includes obtaining a balance for shadow records from exchange institution		22, 48, 63, 66	22, 49, 62, 65, 81
“adequate value” requires that the first and third accounts have “a positive balance”		74	76
Limitations on the “exchange institution”			
“credit card company”		12, 45	12, 46
“debit card company”		13, 46	13, 47
“bank”		14, 55	14, 56
“central bank”		15, 56, 69	15, 57, 69
“guarantor”		16	16
“party offering credit”		17, 47	17, 48
exchange institutions operate in “different time zone[s]”		19, 25, 50, 59	19, 24, 51, 71
exchange institutions have “different account processing cycle[s]”		20, 26, 51, 57, 60	20, 25, 52, 58
“non-bank clearing house or depository”		23, 73	26, 75
supervisory institution and exchange institution “legally and/or geographically domiciled in different countries”		37	38
exchange institutions are different		24, 49, 58	23, 50
“first exchange institution and . . . second exchange institution are the same”		70	72
Limitations on the exchange institution “account” or “record”			
pertains to “shares in financial or physical assets”		28	29
pertains to “participation rights in wagers”		29	30
pertains to “goods”		30	31
pertains to “services”		31	32
pertains to “central bank exchange settlement account deposits”		32	33
pertains to “financial instrument deposits”		33	34
pertains to “credit extended to/from a party or to/from a guarantor”		34	35
includes an “overdraft or line-of-credit” with an exchange institution		35	36
“second account and . . . fourth account are the		71	73

same account”			
“first account holds funds for . . . first party and . . . second party”			83
Limitations on the “parties”			
“first party holds one or more accounts with more than one exchange institution”		36	37
one “party is a buyer” and the other “party is a seller”		38	39

ARGUMENT

THE CLAIMS OF THE ALICE PATENTS DO NOT RECITE PATENTABLE SUBJECT MATTER UNDER SECTION 101

I. MENTAL PROCESSES, ABSTRACT INTELLECTUAL CONCEPTS AND LEGAL RELATIONSHIPS ARE NOT PATENTABLE

35 U.S.C. § 101 lists four categories of patentable subject matter, including “process[es], machine[s], manufacture[s]” and “compositions[s] of matter.”

However, while the Patent Act defines a “process” to mean “a process, art or method,” 35 U.S.C. § 100(b), it is well settled that not all claims to a process or method are patentable. The Supreme Court (and the Federal Circuit) have held that the meaning of “process” in Section 101 is narrower than its ordinary meaning. A claim to a process is not “patent eligible” “if it claims “laws of nature, natural phenomena, [or] abstract ideas.” *In re Bilski*, 545 F.3d 943, 952 (Fed. Cir. 2008) (quoting *Diamond v. Diehr*, 450 U.S. 175, 185 (1981)). Thus, “mental processes, and abstract intellectual concepts are not patentable.” *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972); *see also In re Comiskey*, 554 F.3d 967, 979-80 (Fed. Cir. 2009) (“mental processes,” “processes of human thinking” and “systems that depend for their operation on human intelligence alone” are not patent eligible subject matter). Examples of “abstract intellectual concepts” that are not patent-eligible include “public or private legal obligations” and “business risks.” *Bilski*, 545 F.3d at 962, 963.

The Supreme Court, defining an “algorithm” as a “procedure for solving a given type of mathematical problem,” has also held that an algorithm is “like a law of nature, which cannot be the subject of a patent.” *Diehr*, 450 U.S. at 186. Thus, in *Gottschalk*, the Court held unpatentable a claim to a method for converting one type of number (a “binary-code decimal number”) to another (a “pure binary number”). 409 U.S. at 64, 72-73. Likewise, in *Parker v. Flook*, 437 U.S. 584, 594-95 (1978), the Court held that a claim to a “new and presumably better” method for computing a particular number, an “alarm limit” for use in connection with chemical processing, could not be patented as a process under Section 101.¹³

A claim that is not drawn to patentable subject matter is invalid and must be rejected even if it meets all of the other legal requirements of patentability. *See Parker*, 437 U.S. at 593.

Whether a claim is drawn to patent eligible subject matter is an issue of law. *Bilski*, 545 F.3d at 951.

II. ALICE’S METHOD CLAIMS ARE NOT DRAWN TO PATENTABLE SUBJECT MATTER.

A. Alice’s Claims Are Drawn To An Unpatentable Algorithm That Does Not Transform Any Particular Object Into A Different State Or Thing

Like the claims at issue in *Gottschalk* and *Parker*, Alice’s patent claims are drawn to an algorithm, and are unpatentable for that reason. As discussed above, each of the claims in the Alice Patents involves “accounts” or “shadow records” -- numbers -- maintained by an entity separate from accounts or records maintained by another entity. Information about a transaction

¹³ Numerous Federal Circuit decisions have also rejected as unpatentable method claims based on algorithms. *See, e.g., Comiskey*, 554 F.3d at 980-81 (claim to algorithm for arbitrating a dispute to decide its resolution held unpatentable); *In re Meyer*, 688 F.2d 789, 796 (C.C.P.A. 1982) (rejecting as an unpatentable “mathematical algorithm” a claim to a method for calculating a numeric factor for use in diagnosing problems in multicomponent systems); *In re Grams*, 888 F.2d 835, 840-41 (Fed. Cir. 1989) (rejecting claim to algorithm for diagnosing abnormal condition in person by identifying and assigning numeric value to results of clinical tests of different parts of body).

is received. An algorithm -- an arithmetical test based on the magnitude of the accounts or shadow records -- is then used to determine if they should be adjusted in light of the information received regarding the transaction; the adjustment is made only if the test is passed. Finally, an “irrevocable, time invariant instruction” is provided or generated to mandate the adjustment of accounts or records at some other institution, based on the adjustments permitted by the algorithm.

In *Bilski*, the Federal Circuit held that the “definitive test” to determine whether a process claim based on an algorithm is directed to patent-eligible subject matter under Section 101 is the “machine or transformation test”: A claim based on an algorithm is unpatentable subject matter under Section 101 *unless* it (1) “is tied to a *particular* machine or apparatus” or (2) “transforms a particular article into a different state or thing.” 545 F.3d at 955 (emphasis added).

Bilski held unpatentable a claim to a method for reducing “risk” in certain transactions -- i.e., “hedging risk in the field of commodities trading.” *Id.* at 949, 965-66. As summarized by the Federal Circuit, the method comprised “performing requisite mathematical calculations” in order to “identify[] those transactions that the calculations have revealed would hedge each other’s risk[],” and “performing the post-solution step of consummating those transactions.” *Id.* at 965. It is telling that, as in *Bilski*, Alice’s claims are also directed to eliminating “risk” (*see* Alice Mem. at 6) in certain transactions by performing mathematical calculations based on the transaction data and the magnitude of certain accounts/shadow records to identify transactions which may be risky (*i.e.*, those transactions which would lead to a wrong account or shadow record total), and only consummating, *i.e.*, “allowing,” those transactions that pass the test. (*See* Ex. 1, ’479 patent at claim 33.)

The Federal Circuit held that that *Bilski*’s method claim was unpatentable because it failed the second prong of the “machine or transformation test.” The first prong of the test was

not at issue with respect to this claim in *Bilski* because the patent applicant “admit[ted] that the language of [the claim did not] limit any process step to any specific machine or apparatus.” 545 F.3d at 962. Addressing the second prong, the court held that the claimed invention “d[id] not transform any article to a different state or thing” because it did not “involve the transformation of any physical object or substance, or an electronic signal representative of any physical object or substance.” *Id.* at 964.

The court’s conclusion that *Bilski*’s claim was unpatentable subject matter rested ultimately on the court’s determination that the only transformation in the claim involved “transactions” relating to “the exchange of . . . legal rights at a ‘fixed rate.’” *Id.* at 964. The Federal Circuit held that “[p]urported transformations or manipulations simply of public or private legal obligations or relationships, business risks, or other such abstractions” do not constitute patentable subject matter because “they are not physical objects or substances, and they are not representative of physical objects or substances.” *Id.* at 963. A claim that “incorporates only such ineligible transformations” is directed to unpatentable subject matter. *Id.* at 963-64.

Here, as in *Bilski*, the inventions claimed in Alice’s patents do not “transform any article to a different state or thing,” but rather involve only unpatentable “transformations or manipulations simply of public or private legal obligations . . . and business risks” *Bilski*, 545 F.3d at 963. Indeed, as discussed above, Alice’s claimed invention is expressly directed to methods and systems for exchanging “obligations” between parties.¹⁴ Alice’s claimed inventions are not patentable subject matter because they do not do anything more than use information

¹⁴ Examples of the broad range of obligations apparently encompassed by the claims of the ’510 patent include “share price,” “market event[s],” “weather event[s],” “financial or physical assets,” “wager[s],” “commodit[ies],” or “money.” (*See* Ex. 2, ’510 patent at claims 2-8.)

about such obligations to manipulate “accounts” or “shadow records” to reduce the risk involved in the exchange of obligations.

The unpatentability of Alice’s claims is also shown by the Federal Circuit’s decision in *In re Schrader*, 22 F.3d 290 (Fed. Cir. 1994) (cited with approval in *Bilski* at, e.g., 545 F.3d at 957 n.14). In *Schrader*, the court held that a claim to an auction bidding method was unpatentable because it did not “reflect any transformation or conversion of subject matter representative of or constituting *physical activity or objects*.” 22 F.3d at 291, 294 (emphasis in original). The claim in *Schrader* involved a method for auctioning multiple items either individually or as a group, using an algorithm to determine the most advantageous bid for the seller. *Id.* at 291. Like Alice’s claims here, it involved receiving transactions (“receiving bids from bidders”), adjusting records (“entering bids in [a] record”), and using an algorithm to identify permitted transactions (“identifying a bid for all of said items at a prevailing total price”). The court affirmed the PTO Board’s ruling that the claim in *Schrader* was directed to unpatentable subject matter because it involved “only information exchange and data processing and [did] not involve a process of transforming or reducing an article to a different state or thing.” *Id.* at 292, 295-96.

B. Adjusting Accounts Is Not A Transformation That Renders Alice’s Claims Patentable

Alice may assert that its method claims are transformative because the claims require that the accounts/shadow records be “adjusted” after the algorithm is used to determine if the adjustment should be made. (*See, e.g.,* Ex. 1, ’479 patent at claim 33 (“for every transaction resulting in an exchange obligation, the supervisory institution adjusting each respective party’s shadow credit record or shadow debit record”).) However, as discussed above, Alice’s claims are directed to algorithms that do not involve any patentable transformation, and the adjustment of accounts/shadow records is no more than an incidental activity that takes place

once the algorithm is solved, and that merely reflects the result. Such “post-solution activity” does not render Alice’s claims patentable.

The argument that “post-solution” activity may render unpatentable subject matter patentable has been repeatedly rejected by both the Supreme Court and the Federal Circuit. In *Parker*, for example, the patentee asserted that “the adjustment of the alarm limit to the figure computed according to the formula” rendered the method transformative and thus patentable. 437 U.S. at 590. The Court explained that such “post-solution activity” cannot “transform an unpatentable principle into a patentable process”; to hold otherwise would “exalt[] form over substance.” *Id.* Similarly, in *Schrader*, the patent applicant asserted that its auction bid method was transformative because it required “the entering of bids in a ‘record.’” *Schrader*, 22 F.3d at 294. The Federal Circuit, noting that “the step of entering data into a ‘record’ is implicit in any application of a mathematical algorithm,” held that the adjustment of such records was not sufficient to make the claim patentable. *Id.*

Here, as in *Parker* and *Schrader*, the “post-solution activity” of adjusting record or account data to reflect the result of Alice’s claimed algorithm cannot transform that algorithm into patentable subject matter. *Diehr*, 450 U.S. at 191-92 & n.14 (“a mathematical formula does not become patentable subject matter merely by including in the claim for the formula token post-solution activity”).

C. Providing Or Generating An Instruction That Is An “Irrevocable, Time-Invariant Obligation” Is Not A Transformation That Renders Alice’s Claims Patentable.

Alice may also claim that its claim is transformative because, following the calculation and adjustment of the shadow records, the claimed method involves “instructing” another institution (the “exchange institution”) to adjust the exchange institution’s own records to reflect

the results of the earlier method steps.¹⁵ Alice may claim that the generation of such an instruction, which is claimed to be “an irrevocable, time invariant obligation placed on the exchange institution,” is itself a transformation. However, such a contention would be wrong, for two reasons.

First, as discussed above, such “post-solution activity” cannot transform an unpatentable algorithm claim into a patentable method. *See supra* at II.B. (discussing *Parker* and *Schrader*).

Second, the generation of the instruction is another step that purports to transform or manipulate “legal obligations or relationships,” the type of transformation rejected in *Bilski*. As Alice explained, the instruction creates an “irrevocable” *legal* obligation between the exchange institutions such that the instruction, once received, must be “honored” by both exchange institutions. This ensures that the obligation at issue that is the subject of the method “cannot be undone by either party.” (Alice Mem. at 7.) Because of the legal nature of the instruction, Alice explained, if one party were to go bankrupt after the adjustment to the shadow credit and debit records occurred, the other party “would still receive payment because the transaction is irrevocable.” (*Id.*)

The argument that a legal manipulation can render unpatentable subject matter patentable was rejected in *Fort Properties, Inc. v. American Master Lease, L.L.C.*, 2009 WL 249205 (C.D. Cal. Jan. 22, 2009), one of the first district court decisions to interpret *Bilski*. The claim at issue involved methods for creating an investment instrument out of real property. *Id.* at *1. One step in the method was the creation of a “deedshare” which created a legal relationship involving “a tenant-in-common interest in real estate” combined with “the divisibility and liquidity of a

¹⁵ *See, e.g.*, Ex. 1, '479 patent at claim 33 (“(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 place on the exchange institutions*”) (emphasis added).

traditional security.” *Id.* The patentee claimed that its method was transformative as a result of “the creation of the deedshare” because “there can be no greater transformation for an article than the very creation of the article itself.” *Id.* at *4. The court rejected this argument, agreeing with the accused infringer that the claim was unpatentable because, like the instruction in Alice’s claim 33, “what is allegedly created is nothing more than an arrangement of conceptual legal rights.” *Id.* Because the deedshare represented only a legal obligation (“legal ownership interests in property”), and not a “physical object[,]” its creation did not constitute the transformation of an article required for patentability by *Bilski*. *Id.*

Likewise, the instruction provided or generated in Alice’s claims does not render the method patentable, because it represents only a legal obligation and not a physical object. It is simply another abstract idea, like the algorithm used to adjust the supervisory accounts/shadow records. As the Federal Circuit held in *In re Warmerdam*, 33 F.3d 1354, 1360 (Fed. Cir. 1994), “taking several abstract ideas and manipulating them together adds nothing” to the patentability of a claim.

D. The Added Requirement In The Claims Of The ’510 Patent That Accounts/Shadow Records Be Adjusted “Electronically” Does Not Render The Subject Matter Of Those Claims Patentable.

Alice may contend that the requirement in the claims of the ’510 patent that the adjustment of the supervisory institution accounts/shadow records be performed “electronically” brings those claims within the “machine” prong of the machine or transformation test, and renders them patentable.¹⁶ The addition of the word “electronically” does not, however, render

¹⁶ Compare, for example claim 1 of Ex. 2, ’510 patent (“for every transaction resulting in an exchange obligation, the supervisory institution *electronically* adjusting said shadow credit record and/or said shadow debit record . . .”) (emphasis added) with claim 33 of Ex. 1, ’479 patent (“for every transaction resulting in an exchange obligation, the supervisory institution adjusting each respective party’s shadow credit record or shadow debit record . . .”); see also Table 1, *supra* at 5-6.

Alice's claims patentable, because it does not tie them to a *particular* machine or apparatus. *See Bilski*, 545 F.3d at 954.

The word “electronically” was added to modify “adjusting” in each independent claim then pending in the application that led to the '510 patent during prosecution, when the examiner rejected the original claims after finding that they were “directed to non-statutory subject matter” under Section 101 because they “lack[ed] any specific technology.” (*See* Ex. 4, Office Action, dated 9/3/03 at 3.)¹⁷ In a subsequent interview with the patentee, the examiner stated that the claims were “directed to an abstract idea” and were therefore unpatentable. (*See* Ex. 5, Amendment and Reply Under 37 C.F.R. § 1.111, dated 10/31/03 at 22.) The examiner allowed the claims after the patentee agreed to add the word “electronically,” because he apparently believed that this addition would bring the claims within the “‘technological’ arts.” (*Id.*) The “technological arts” test was one that was used at the time to determine whether a claim was directed to patentable subject matter. (*See id.* at 22 n.1 (discussing examiner's citation to *Ex parte Bowman*, 61 U.S.P.Q. 2d 1669, 1671 (B.P.A.I. 2001), which used the “technological arts” test).)

The examiner was correct in finding that the original claims of the '510 patent were not directed to patentable subject matter, but incorrect in relying on a “technological arts” test and in finding that Alice's claims could be rendered patentable merely by adding the word “electronically.” In *Bilski*, the Federal Circuit decisively rejected the “technological arts” rule as a test for patentable subject matter. 545 F.3d at 960. The court noted that the test had never been “adopted by the Supreme Court, this court or our predecessor court,” and declined to rely on it. *Id.*

¹⁷ *See supra* at note 10 and accompanying text (discussing the claims rejected by the examiner).

Moreover, the Supreme Court has clearly held that a passing mention to electronics or a computer in a method claim cannot render patentable an otherwise unpatentable algorithm or other unpatentable subject matter. In *O'Reilly v. Morse*, 56 U.S. 62, 112-121 (1853), for example, the Court rejected as unpatentable subject matter a claim to the use of “electromagnetism for printing intelligible signs characters or letters at a distances.” *Parker*, 437 U.S. at 592 (discussing *Morse*). Likewise, in *Gottschalk*, the inclusion of a computer component in the claim did not alter the conclusion that the claim was not directed to patentable subject matter. The Supreme Court concluded that granting a patent on this method “in practical effect would be a patent on the algorithm itself,” notwithstanding the fact that the process involved a machine. 409 U.S. at 65, 72. Similarly, the Court held in *Parker* that a method for updating an alarm limit was not patentable subject matter, where “[t]he only novel feature of the method [was] a mathematical formula.” 437 U.S. at 585. Although the process claimed did not specify an apparatus, the “abstract of disclosure” made clear that the invention could utilize computers in its calculation of the mathematical formula. *Id.* at 586. Yet this conventional use of a computer would be insufficient to render the unpatentable algorithms patentable. (*See also Ex Parte Gutta*, 2009 WL 112393 (B.P.A.I. Jan. 15, 2009) (rejecting claim to “a computerized method performed by a data processor for recommending one or more available items to a target user” because “the recitation . . . of a computerized method performed by a data processor . . . adds nothing”; under *Bilski*, use of “specific machine must impose meaningful limits on the claim’s scope to impart patent-eligibility”)).

Accordingly, the mere addition of a requirement that accounts/shadow records be adjusted “electronically” does not render Alice’s otherwise unpatentable method claims patentable.

III. ALICE'S SYSTEM CLAIMS ARE NOT DRAWN TO PATENTABLE SUBJECT MATTER.

Alice cannot get around the lack of patentable subject matter in the claims of the '479 and '510 patents by restating the same claims as a system. In fact, Alice did little more than add the words "computer" and "data storage unit" to the otherwise unaltered language of the corresponding '510 patent method claim to create a claim to a "data processing system" configured to perform that method. See Figure 2, *supra* at 11, and Appendices B-E, *infra* at 33-36 (comparing independent claims of '510 and '720 patents). The "'720 patent claims do not limit the system to any particular machine or apparatus beyond the otherwise unspecified "computer" and "data storage unit."

Rewriting its method claims to incorporate an otherwise unspecified "computer" is not sufficient to bring Alice's claims within the scope of Section 101. As the Supreme Court held in *Gottschalk* in rejecting a claim drawn to an algorithm used on a computer, "the same principle" regarding non-patentability of algorithms and abstract ideas "applies" to both "product" and "process" claims. See *Gottschalk*, 409 U.S. at 67-68; *AT & T Corp. v. Excel Commc'ns, Inc.*, 172 F.3d 1352, 1357 (Fed. Cir. 1999) ("Whether stated implicitly or explicitly, we consider the scope of Section 101 to be the same regardless of the form - machine or process - in which a particular claim is drafted.")¹⁸ Indeed, a contrary rule would "exalt[] form over substance," and would undermine the proscription on the patenting of abstract ideas and mental processes, because a competent draftsman could attach some form of activity or apparatus to almost any mathematical formula or abstract idea. See *Parker*, 437 U.S. at 590. "The concept of patentable subject matter under Section 101 is not" so malleable. *Id.* (citation omitted).

¹⁸ In *Bilski*, the court stated that a portion of the opinion in *AT & T*, which used the "useful, concrete and tangible result" test to determine patentability under Section 101, "should no longer be relied upon." 545 F.3d at 960 n.19.

If a process is tied to a particular machine or apparatus, the apparatus “must impose meaningful limits on the claim’s scope to impart patent-eligibility.” *Bilski*, 545 F.3d at 961. Thus, it is not enough simply to link an unpatentable process to the conventional use of a computer, particularly where, as here, the algorithm involved “has no substantial practical application except in connection with a digital computer.” *Gottschalk*, 409 U.S. at 71. In these circumstances Alice’s system claims “would wholly pre-empt the mathematical formula” claimed in its method claims, “and in practical effect would be a patent on the algorithm itself.” *Id.* at 72.

In *Bilski*, the Federal Circuit did not apply the “machine” prong of the machine or transformation test, because the patent applicant “admit[ted] that the language of [its claim] does not limit any process step to any specific machine or apparatus.” 545 F.3d at 962. However, the court recognized that simply stating that an unpatentable method could be carried out on a computer might not be sufficient to bring a claim within the scope of Section 101, and left “to future cases the elaboration of the precise contours of machine implementation,” including “whether or when recitation of a computer suffices to tie a process claim to a particular machine.” 545 F.2d at 962.¹⁹

At the same time, the Federal Circuit in *Bilski* held that the portion of its prior decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998), holding that a claim to a computer system configured to carry out a particular algorithm stated patentable subject matter because it produced “a useful, concrete and tangible result” should “no longer be relied upon.” 545 F.3d at 960 n.19. *Bilski* expressly rejected the “useful

¹⁹ Similarly, in *Comiskey*, the Federal Circuit panel recognized that there was a question whether the applicant’s claims which recited a machine were patentable, and remanded so that “the Section 101 question [c]ould be addressed in the first instance by the PTO.” 554 F.3d at 981.

concrete and tangible result” test for patentability used in *State Street*, stating that the test is “inadequate” and “insufficient to determine whether a claim is patent eligible under Section 101” 545 F.3d at 959-60; *see also In re Ferguson*, No. 2007-1232, ___ F.3d ___ (Fed. Cir. Mar. 6, 2009) (*slip. op.* at 7-8) (reaffirming that “useful, concrete and tangible result” test for patentable subject matter is neither “valid” nor “useful” and “reject[ing] [its] viability”).²⁰

Recently, *Ex parte Cornea-Hasegan*, 2009 WL 86725 (B.P.A.I. Jan. 13, 2009), applied *Bilski* and held that merely reciting a computer configured to carry out the steps of an unpatentable process is not sufficient to bring a claim within the scope of Section 101. The applicant claimed a “computer readable media including program instructions which when executed by a processor cause the processor to perform” a mathematical algorithm. The Board of Patent Applications and Interferences, the appeal board of the PTO, held that the claim was unpatentable under *Bilski*. It found that “[l]imiting the claim to computer readable media does not add any practical limitation to the scope of the claim” because the recitation of such

²⁰ In *Ferguson*, the court noted that although *Bilski* did not overturn *State Street* in its entirety it “refused to extend or even to take a broad reading of [*State Street*’s] holding”; in essence, *Bilski* limited *State Street* to its facts. *Ferguson*, *slip. op.* at 9. To the extent *Ferguson* indicated, *in dicta*, that the claim in *State Street* might remain patentable as a claim to a particular machine under the “machine” prong of the machine or transformation test, *slip. op.* at 9, its statement has no bearing on the patentability of Alice’s system claims here. The claim in *State Street* was drawn to a machine composed of “means plus function” elements which, by statute, are specifically limited to the “corresponding structure . . . described in the specification and equivalents thereof.” 35 U.S.C. § 112, ¶ 6. As a result, unlike Alice’s system claims here, the machine claim in *State Street* was not drawn generally to “computers” and “data storage units” configured by software to run an unpatentable method, but rather was limited to a particular machine, composed of specific hardware including particular electronic circuitry (“arithmetic logic circuits”) described in the patent’s specification for each element of the claim. *State Street*, 149 F.3d at 1371-72 (“[F]or the purposes of a § 101 analysis,” the machine in the claim at issue “is made up of, at the very least, the specific structures disclosed in the written description and corresponding to the means-plus-function elements (a)-(g) recited in the claim”).

hardware did not change the fact that the claim ultimately was still “directed to determining a result from a mathematical algorithm.” *Id.* (citing *Bilski*, 545 F.3d at 957).

In light of the foregoing authorities, it is clear that Alice’s system claims are unpatentable under Section 101. These claims do not tie Alice’s method to any particular machine or specific apparatus, and the “data processing system” set out in the claims does not impose any meaningful limit on the method. Rather, as shown in Figure 2, *supra* at 11, and in Appendices B-E, *infra* at 33-36, in its ’720 patent claims Alice simply replaced the “supervisory institution” that maintained accounts and managed the algorithm in the ’510 patent method claims with an otherwise unspecified coupled “computer”/“data storage unit” that does exactly the same thing. These claims cannot survive.

IV. THE DEPENDENT CLAIMS OF THE ALICE PATENTS ARE NOT DRAWN TO PATENTABLE SUBJECT MATTER.

Finally, the dependent claims of the Alice patents do not add anything which renders the claimed subject matter patentable. For example, claim 34 of the ’479 patent provides only that the instruction issued by the supervisory institution in claim 33 “represents credits and debits netted throughout the day for each party in respect of all the transactions of that day.” (Ex. 1, ’479 patent at claim 34.) This claim merely specifies the type of legal obligation represented by the instruction. However, as noted above, a legal obligation, regardless of how specified, is not patentable subject matter. *See, e.g., Bilski*, 545 F.3d at 963-64; *Fort Properties*, 2009 WL 249205, at *4; *see also supra* at II.C.

More generally, the dependent claims of the Alice Patents merely add additional limitations on the “field of use” of the claimed invention. (*See* Table 2, *supra* at 13-15, summarizing dependent claims in the ’479, ’510 and ’720 patents.) These include limitations on the type of obligation or transaction on which the invention may be used (*e.g.*, shares, wagers, currency, goods, etc.), limitations on the nature of the exchange institution (*e.g.*, credit or debit

card company, bank or central bank, etc.), limitations on the nature of the parties (*e.g.*, seller or buyer) and limitations on the type of data recorded in the account or shadow record (*e.g.*, wagers, goods, services). (*See id.*)

It is well established that field of use limitations of the sort embodied in the dependent claims of the Alice Patents -- limitations that merely specify an end use for the process -- are not sufficient to establish patentability of an algorithm. As the Supreme Court has noted, “the Pythagorean theorem would not have been patentable . . . because a patent application contained a final step indicating that the formula, when solved could be usefully applied to existing surveying techniques.” *Parker*, 437 U.S. at 590; *see also Diehr*, 450 U.S. at 191-92 (field-of-use limitations are insufficient to impart patent-eligibility to otherwise unpatentable claims drawn to fundamental principles). In *Bilski*, the Federal Circuit rejected the argument that the applicant’s process claims could be made patentable simply by adding limitations confining the method to certain applications (such as “consumable commodities”). 545 F.3d at 965-66. Here, likewise, Alice’s claims are not rendered patentable merely by adding limitations indicating that they may be useful for particular parties or forms of financial activity.

CONCLUSION

For the foregoing reasons, CLS should be granted summary judgment that all of the claims of the Alice Patents are invalid for lack of patentable subject matter.

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APPENDICES

Appendix A

'479 Patent, Claim 33 vs. '510 Patent, Claim 1

'479 Patent, 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;

(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 those 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.

'510 Patent, Claim 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;

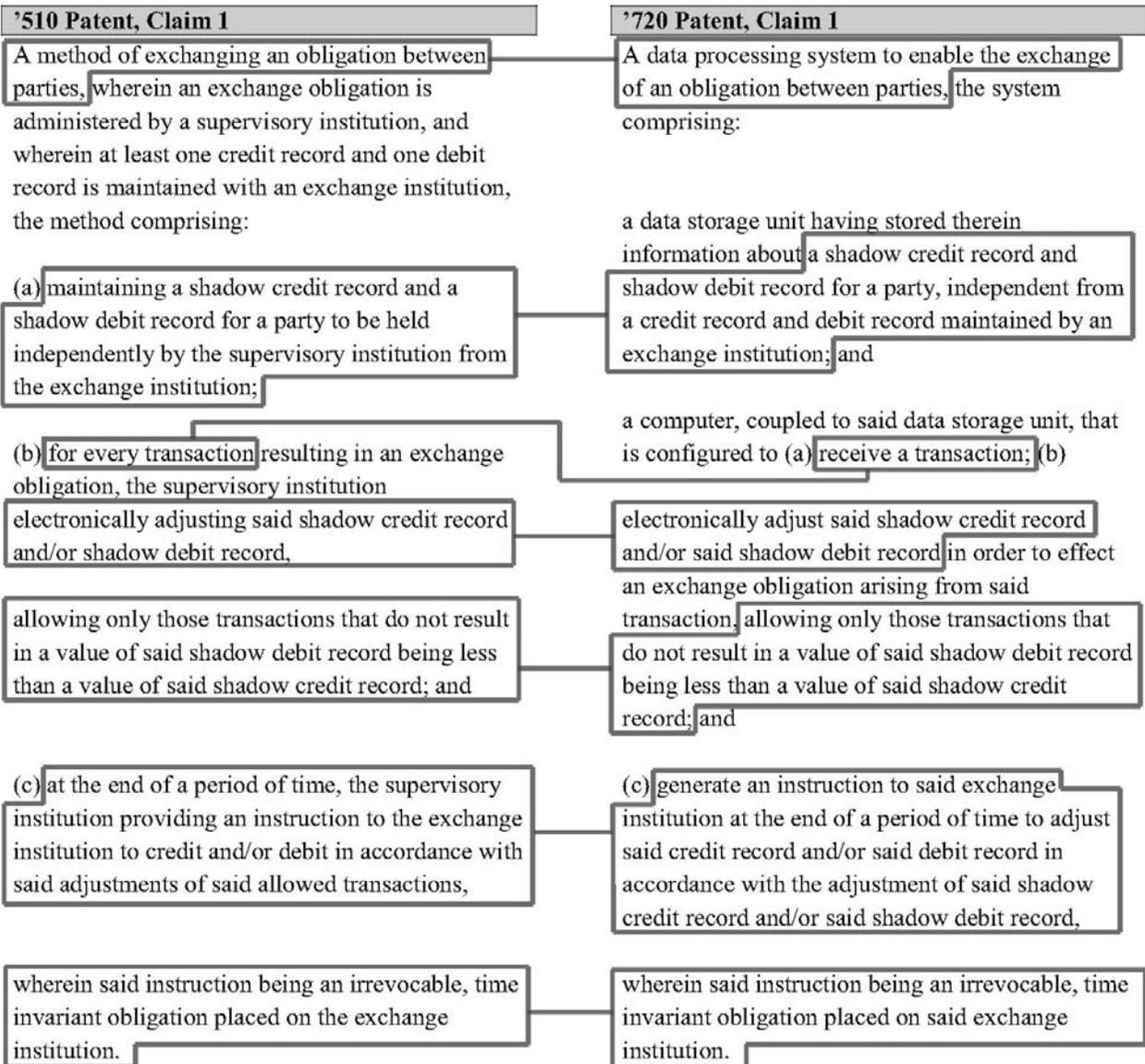
(b) for every transaction resulting in an exchange obligation, the supervisory institution electronically adjusting said shadow credit record and/or shadow debit record, allowing only those transactions that do not result in a value of said shadow debit record being less than a value of said shadow credit record; and

(c) 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.

Appendix B

'510 Patent, Claim 1 vs. '720 Patent, Claim 1



Appendix C

'510 Patent, Claim 27 vs. '720 Patent, Claim 28

'510 Patent, Claim 27

A method of exchanging an obligation between parties, wherein an exchange obligation is administered by a supervisory institution, and wherein an account is maintained with an exchange institution, the method comprising:

(a) maintaining a shadow record for a first 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 record, allowing only those transactions that do not result in a value of said shadow record being less than zero; and

(c) exchanging at least one transaction between the supervisory institution and the exchange institution at the end of a period of time in accordance with said adjustments made in step (b),

wherein said transaction being an irrevocable, time invariant obligation placed on the exchange institution.

'720 Patent, Claim 28

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 record for a first party, independent from an account 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 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 record being less than a zero; and

(c) generate an instruction to said exchange institution at the end of a period of time to adjust said account in accordance with the adjustment of said shadow record,

wherein said instruction being an irrevocable, time invariant obligation placed on said exchange institution.

Appendix D

'510 Patent, Claim 61 vs. '720 Patent, Claim 60

'510 Patent, Claim 61

A method of exchanging a payment obligation of a currency exchange transaction between banks, wherein an exchange obligation is administered by a supervisory institution, and wherein at least one bank maintains a credit record and a debit record with a central bank, the method comprising:

(a) maintaining a shadow credit record and a shadow debit record for a bank to be held independently by the supervisory institution from the central bank;

(b) for every currency exchange transaction resulting in a payment obligation, the supervisory institution electronically adjusting said shadow credit record and/or shadow debit record,

allowing only those currency exchange transactions that result in a net positive shadow record balance; and

(c) periodically providing an instruction to the central bank to credit and/or debit in accordance with said adjustment of said allowed currency exchange transaction,

wherein said instruction being an irrevocable, time invariant obligation placed on the central bank.

'720 Patent, Claim 60

A data processing system to enable the exchange of a payment obligation of a currency exchange transaction between banks, the system comprising:

a data storage unit having stored therein information about a shadow credit record and shadow debit record for a bank, independent from a credit record and debit record maintained by a central bank; and

a computer, coupled to said data storage unit, that is configured to (a) receive a currency exchange transaction;

(b) electronically adjust said shadow credit record and/or said shadow debit record in order to effect an exchange obligation arising from said currency exchange transaction, allowing only those currency exchange transactions that result in a net positive shadow record balance; and

(c) generate an instruction periodically to said central bank 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 central bank.

Appendix E

'510 Patent, Claim 65 vs. '720 Patent Claim 64 vs. '720 Patent, Claim 80

