No. 13-298

IN THE

Supreme Court of the United States

ALICE CORPORATION PTY. LTD.,

Petitioner,

v.

CLS BANK INTERNATIONAL AND CLS SERVICES LTD.,

Respondent.

ON WRIT OF CERTIORARI
TO THE UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

BRIEF OF PUBLIC KNOWLEDGE AND THE APPLICATION DEVELOPERS ALLIANCE AS *AMICI CURIAE* IN SUPPORT OF RESPONDENT

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INTEREST OF *AMICI CURIAE*

Public Knowledge is a non-profit organization that is dedicated to preserving the openness of the Internet and the public's access to knowledge; promoting creativity through balanced intellectual property rights; and upholding and protecting the rights of consumers to use innovative technology lawfully. As part of this mission, Public Knowledge advocates on behalf of the public interest for a balanced patent system, particularly with respect to new and emerging technologies.[1]

Public Knowledge has previously served as *amicus* in key patent cases. *E.g.*, *Microsoft Corp. v. i4i Ltd. P'ship*, 131 S. Ct. 2238 (2011); *Bilski v. Kappos*, 130 S. Ct. 3218 (2010); *Quanta Computer, Inc. v. LG Elecs. Corp.*, 553 U.S. 617 (2008).

The Application Developers Alliance (ADA) is a non-profit industry association comprising more than 25,000 individual software developers and more than 135 companies who design and build applications ("apps") for consumers to use on mobile devices like smartphones and tablets. Apps run on software platforms, including Google's Android, Apple's iOS, and Facebook, and are sold or distributed through virtual stores like Google's Play Store. ADA is dedicated to meeting the needs of app developers as creators, innovators, and entrepreneurs, by delivering essential information and resources and

[1]Per Supreme Court Rule 37(6), no counsel for a party authored this brief in whole or in part, and no counsel or party made a monetary contribution intended to fund the preparation or submission of the brief. No person or entity, other than *amici*, their members, or their counsel, made a monetary contribution to the preparation or submission of this brief. Per Rule 37(3)(a), consent has been granted for the filing of this brief, as indicated by the blanket consents from counsel for petitioner and counsel for respondents docketed December 11, 2013.

by advocating for public policies that promote the app ecosystem. App developers represent an increasingly robust force in the economy; the app economy is now globally valued at over $53 billion[2] and has created approximately 466,000 jobs in the United States since 2007.[3]

Many ADA members are struggling as a result of patent assertion entities' abuse of overly broad patents via unfounded infringement allegations and aggressive litigation threats, which deeply chill innovation. ADA is concerned that conflicting precedent in the Federal Circuit, combined with an overly permissive standard for patentable subject matter, will amplify and exacerbate these problems by further encouraging baseless patent assertion and discouraging entrepreneurs and innovation.

[2]Andreas Pappas, VisionMobile Ltd., *App Economy Forecasts 2013–2016* (2013).

[3]Michael Mandel, *Where the Jobs Are: The App Economy* 13 (2012).

SUMMARY OF ARGUMENT

It may seem strange to deem "abstract" Petitioner's patent claims, some of which are over two hundred words long and include terms such as "communications controller" and "data storage unit." But careful reading reveals that the lengthy language is a mere façade for broad claims covering general, fundamental concepts.

To demonstrate this, *amici* have taken one of Petitioner's 200-word claims and implemented it in a mere seven lines of computer code.

Using this computer program as a guide, the Court will see that the patent claims are directed to nothing more than an abstract idea implemented on a general-purpose computer. Simply tying an abstract idea to such a general-purpose computer should not render a claim eligible for patenting. To do so would both contravene both the Court's precedent and undermine the underlying rationales for unpatentability of abstract ideas. Permitting such abstract-idea-plus-computer patents would result in effective monopolies on the basic tools of innovation, a result that the Court has previously sought to avoid.

Rather than propose a single test for abstractness of patent claims, *amici* identify three targeted points of analysis that, if adopted by the Court, would greatly reduce confusion among the lower courts. First, the Court should address improper reliance on the specification in determining subject matter eligibility. Second, the Court should clearly state that mere drafting decisions, such as the use of system or method claims, should not affect eligibility. Finally, mere recitation of a basic platform technology, such as a general purpose computer, should not make an otherwise abstract idea patent-eligible, regardless of the level of detail in which that basic technology is described.

ARGUMENT

The present case presents the recurrent question of what constitutes patentable subject matter, particularly with regard to the fields of computer software and business methods. *Amici* address two aspects of this question as they relate to the present case. First, the patented claims at issue are shown to be ineligible for patenting because they are directed to abstract ideas. A computer program implementing one of those claims is used to assist in this demonstration. Second, in view of the fractured opinion of the Federal Circuit below, *amici* suggests principles for guiding the lower courts in deciding future cases.

I. The Claims at Issue Are Ineligible Under Section 101 Because They Effectively Preempt Substantially All Uses of an Abstract Idea

The issue of this case is whether Petitioner's claims are directed to patent-eligible subject matter. Although the statute states that "any new and useful process, machine, manufacture, or composition of matter" is eligible for patenting, 35 U.S.C. § 101 (2013), the Court has identified three exceptional fields that are nevertheless ineligible: laws of nature, physical phenomena, and abstract ideas. *E.g.*, *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293 (2012) (quoting *Diamond v. Diehr*, 450 U.S. 175, 185 (1981)).

The claims of these patents, as with many patents in the computer technology field, are full of complex technical language. To facilitate the Court's analysis of this case, *amici* have prepared a seven-line computer program that implements all the features of one of the claims. Based on this program, *amici* believe, the claims

recite not specialized, technical systems, but rather a broad, general, simple algorithm that reduces to nothing more than an abstract idea run on a computer. Because mere application of a general-purpose computer should not render an otherwise abstract idea patentable, *amici* urge the Court to find the present claims ineligible for patenting.

A. The Patented Technology Can Be Implemented in Seven Lines of Computer Code

A great deal of the disagreement in the lower court's fractured decision stemmed from a disagreement over the nature of the patent claims at issue. One plurality of the court found the claims to be highly generic, reciting "a handful of computer components in generic, functional terms that would encompass any device" and unduly preempt an abstract idea. *See CLS Bank Int'l v. Alice Corp.*, 717 F.3d 1269, 1290 (Fed. Cir. 2013) (en banc) (Lourie, J., concurring). Another found those same claims narrowly tailored, "limited to an implementation that includes at least four separate structural components" rendering the claim patent-eligible. *See id.* at 1307 (Rader, J., concurring-in-part and dissenting-in-part).

Indeed, the claims do use complex, technical-sounding language, making them appear to be directed to a narrowly tailored invention. One of the claims at issue recites, among other things, a "communications controller," a "data storage unit," and an "instruction being an irrevocable, time invariant obligation." U.S. Patent No. 7,725,375 claim 26, cols. 66–67 (filed June 27, 2005).[4]

[4]Claim 26 of the '375 Patent is considered in this brief because it was found patentable by the greatest number of judges of the lower court decision. *See CLS Bank*, 717 F.3d at 1309 (Rader, Linn, Moore & O'Malley, JJ., concurring-in-part and dissenting-in-part); *id.* at

However, upon closer inspection, the Court should find that beneath this veneer of technical language is a very simple, basic idea being patented. As a demonstration, the following computer program implements all the features of the claims:

---

10 LET *account1* = 200.00
20 LET *account3* = 300.00
30 INPUT "Value to exchange for transaction"; *exchange*
40 IF *account1* < *exchange* THEN PRINT "Inadequate value" : STOP
50 *account1* = *account1* − *exchange*
60 *account3* = *account3* + *exchange*
70 PRINT "Instruction to 1st institution: adjust 2nd account by "; −*exchange*

The program is written in the BASIC programming language, which both is simple to understand and predates the patent.[5] A complete explanation of the working of this program as it relates to Claim 26 of the '375 Patent is presented in Appendix A *infra* p. 1a.

As the Court will observe, the computer program is

1327 (Newman, J., concurring-in-part and dissenting-in-part). The analysis applied by *amici* to this claim can, of course, be applied to other claims at issue in this case. For reference, Claim 26 is reprinted in Appendix B *infra* p. 8a.

[5]The earliest possible priority date of the patent is 1992. The BASIC language dates back to 1964. *See* Computation Ctr., Dartmouth Coll., *BASIC* (1964), *available at* http://bitsavers.trailing-edge.com/pdf/dartmouth/BASIC_Oct64.pdf. This shows that, at the time of the filing of the patents, the computer techniques used in this brief were "well-understood, routine, conventional activity previously engaged in by researchers in the field." *Mayo*, 132 S. Ct. at 1294; *cf. CLS Bank*, 717 F.3d at 1310 (Rader, J.) (asserting that the use of computers in the claims did not involve such conventional activity).

only seven lines long, indicating that the verbose language of the claims does not in fact demand specific, particular implementations but rather expansively preempts all uses of a simple, basic idea.

Certain judges of the Federal Circuit were clearly misled by the language of the claims and the patent. One plurality believed that this very claim "covers the use of a computer and other hardware specifically programmed to solve a complex problem" through the use of "at least four separate structural components." *CLS Bank*, 717 F.3d at 1307 (Rader, J.). The plurality reviewed the "at least thirty two figures which provide detailed algorithms for the software" to conclude that "[l]abeling this system claim an 'abstract concept' wrenches all meaning from those words." *Id.* at 1309 (Rader, J.). Another plurality found a similarly-worded claim "limited to one that is configured to perform certain functions in a particular fashion" and proceeded to review one of the flowcharts of the patent to suggest that the claims demanded a dizzyingly long and complex algorithm. *Id.* at 1318 (Moore, J., dissenting-in-part). A third plurality concluded that, while they may be based on an abstract idea, "the claims here are directed to very specific ways of doing that," proceeding to enumerate seven claim terms from a related claim. *Id.* at 1741 (Linn, J., dissenting).

The common thread among all of these judges is an assumption, based on technical language recited in the specification and claims of the patents, that only a specific, complex, technical computer program could infringe the patents. As the above seven-line computer program demonstrates, this assumption was in error.

Amici are aware that the Court's precedent requires that "claims must be considered as a whole." *Diamond v.*

Diehr, 450 U.S. 175, 188 (1981). However, this principle does not warrant reading the claims too narrowly, despite the fact that many of the judges of the Federal Circuit did just that under the banner of the claims-as-a-whole proposition.[6] Claims must be read with neither too broad nor too narrow a scope; instead they must be accorded the scope congruent with their language.

The use of a computer program does indeed read the claim as a whole. As shown in detail in the appendix, every claim limitation has been considered and implemented appropriately in the computer code, so it cannot be said that details or limitations have been stripped from the claim. *See* Appendix A *infra* p. 1a; *cf. Diehr*, 450 U.S. at 188 ("It is inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the analysis."). Furthermore, because the computer program is a functional, working implementation of the claim, it cannot be argued that it is a mere abstraction or generalization of the claims.

Accordingly, Claim 26 of the '375 Patent is directed not to a complex, technical system requiring specialized hardware, but rather a simple, basic, seven-line computer algorithm. *Amici* thus turn next to show that this basic algorithm is an abstract idea not eligible for patenting.

[6] All three of the aforementioned pluralities made such a statement. *See CLS Bank*, 717 F.3d at 1298 (Rader, J.); *id.* at 1315 (Moore, J.) ("My colleagues erroneously apply *Prometheus*'s 'inventive concept' language by stripping away all known elements from the asserted system claims . . . ."); *id.* at 1331 (Linn, J.) (criticizing Judge Lourie's dissent because "he actually strips the claims of their detail and limitations"); *see also CLS Bank Int'l v. Alice Corp.*, 685 F.3d 1341, 1353 n.4 (Fed. Cir. 2012) (panel decision) (Linn, J.) (criticizing the dissenting judge for providing a "plain English translation" of the claims), *vacated and reh'g en banc granted*, 484 Fed. Appx. 559 (Fed. Cir. 2012).

B. Read with Proper Expansiveness, the Claims Cover Substantially All Computer Implementations of an Abstract Idea

The example computer program shows that the asserted claims, though lengthy and technical in appearance, are actually directed only to a very simple, basic computer procedure. *Amici* now proceed to use this example computer program to show that the asserted claims are directed only to an abstract idea.

"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." *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) (quoting *Le Roy v. Tatham*, 55 U.S. (14 How.) 156, 175 (1853)). Claims directed merely to an abstract idea are not eligible under § 101, because they are the "basic tools of scientific and technological work," *Benson*, 409 U.S. at 67, which therefore are "part of the storehouse of knowledge of all men . . . free to all men and reserved exclusively to none," *Bilski v. Kappos*, 130 S. Ct. 3218, 3225 (2010) (quoting *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948)) (omission in original). Furthermore, inclusion of "conventional or obvious" post-solution or pre-solution activity to an otherwise abstract idea does not render a claim eligible, as this Court has held, because otherwise "a competent draftsman could attach some form of post-solution activity" to "transform an unpatentable principle into a patentable process." *Parker v. Flook*, 437 U.S. 584, 590 (1978); *see also Mayo*, 132 S. Ct. at 1300 (holding "conventional steps, specified at a high level of generality," to similarly not confer patent eligibility).

As Respondents have argued, the claim is directed to nothing more than a general-purpose computer tied to the abstract idea of accounting by a third-party escrow.

The following exposition will consider Claim 26, line by line, to determine that every claim element is (1) an inherent aspect of this abstract idea, (2) a standard component of a general-purpose computer, or (3) insignificant pre- or post-solution activity.

Elements[7] 1–2 of the claim describe ordinary components of a general-purpose computer. *See infra* p. 2a. The "communications controller" and "first party device" are broad, general terms that encompass basic computer components for interacting with users. Furthermore, these two components are only recited in conjunction with a step of receiving data, which as explained below is insignificant pre-solution activity.

Elements 3–5 describe basic record-keeping operations inherent in the idea of third-party escrow. Although the claim language verbosely describes a "data storage unit" with "information about a first account" and second account, the computer implementation demonstrates that these claim elements in fact require nothing more than storing account balances—that is, recording two numbers in a computer. *See infra* p. 2a. Certainly one would necessarily store such account information as part of an escrow service.

Element 6 recites "a computer," and as such only further describes a general-purpose computer.

Element 7 states that the computer must "receive a transaction." Steps of obtaining data to be used for processing have been held by this Court and others to constitute insignificant pre-solution activity. *See, e.g.*, *Mayo*, 132 S. Ct. at 1297–98 (treating as pre-solution activity a

[7]Elements will be referenced by numbers corresponding to the claim reprinted in the appendix. *See* Appendix B *infra* p. 8a.

step of determining a level of metabolites prior to adjusting a treatment); *In re Meyer*, 688 F.2d 789, 794 (C.C.P.A. 1982) ("[A] data gathering step . . . cannot make an otherwise nonstatutory claim statutory."). As such, this claim element does not contribute to the eligibility of the claim.

Element 8 describes two steps to be performed by the computer, both of which are inherent in the idea of third-party escrow. First, the computer is tasked with "ensuring that said first party and/or said second party have adequate value" in their accounts. The computer code shows that this amounts to nothing more than a comparison, checking whether an account balance is greater than an amount to be transferred out of that account. *See infra* p. 4a. This is a necessary operation performed by a third-party escrow broker, who must ensure that the parties' accounts can satisfy the desired transaction.

Second, element 8 requires the computer to "electronically adjust said first account and said third account." This is performed in two lines of computer code, one of which subtracts from the first account and the other of which adds to the third account. *See infra* p. 4a. Again, this is inherent in a third-party escrow service, which must adjust account balance records to account for a transaction.

Element 9 instructs that the computer "generate an instruction to said first exchange institution and/or said second exchange institution to adjust said second account and/or said fourth account." Despite the fifty-nine-word length of this element, it reduces to a single computer operation of printing out a message describing the transaction that was just completed. *See infra* p. 6a. This elementary output step is post-solution activity that should not contribute to the eligibility of the claim. *Cf. Flook*,

437 U.S. at 590 (treating as post-solution activity a step of adjusting an alarm limit in response to a computation).

Accordingly, this claim is directed to nothing more than an abstract idea of third-party escrow, in conjunction with insignificant pre-solution and post-solution activity, and ordinary, albeit verbosely described, components of a general purpose computer.

C. Claims that Preempt Substantially All Computer Uses of an Abstract Idea Should Be Ineligible for Patenting

As explained above, Claim 26 of the '375 Patent effectively covers an abstract idea implemented on a general-purpose computer. The Court should make clear that abstract ideas, including algorithms, are reserved to the public, even when implemented on general-purpose computers. This follows, first, from the principles of promoting innovation that underlie the Court's § 101 doctrine, and second, from the particular rules of law the Court has derived from these principles.

The abstract ideas exception is grounded in the principle that certain fundamental subject matter must be fixed in the public domain, so that patents may serve their constitutional mandate to "promote the Progress of . . . the useful Arts." U.S. Const. art. 1, § 8, cl. 8. Abstract ideas are unpatentable because they are "the basic tools of scientific and technological work," *Benson*, 409 U.S. at 67, and must remain "free to all men and reserved exclusively to none," *Bilski*, 130 S. Ct. at 3218 (quoting *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948)). "[M]onopolization of those tools through the grant of a patent might tend to impede innovation more than it would tend to promote it." *Mayo*, 132 S. Ct. at

1293; *accord Bilski*, 130 S. Ct. at 3228 (patent law must avoid "granting monopolies over procedures that others would discover by independent, creative application of general principles").

Permitting patents on abstract ideas merely tied to general-purpose computers would effectively eviscerate this principle. Computers are in widespread use today, and they are essential to innovation and a productive economy. *See, e.g.*, Erik Brynjolfsson & Adam Saunders, *Wired for Innovation: How Information Technology Is Reshaping the Economy* 4 (2010). Tying an abstract idea to a computer technically will not preempt all possible uses of an abstract idea, as pencil and paper would still be available. But relegating innovators to practice abstract ideas on pencil and paper would severely hamstring innovation given the general importance of computers. Such a result would be untenable and against the purpose of the abstract idea exception. The basic tools of innovation remain basic tools, even when they are implemented on general-purpose technologies, or must be implemented on general-purpose technologies.

Indeed, by way of analogy, consider a patent claim directed to the process of long division performed with pencil and paper. Such a claim would also technically not preempt *all* uses of long division, as the process could be performed in the mind without writing instruments. But most of us cannot solve long division problems of a certain difficulty without writing them down, so the claim would make the abstract idea effectively unusable.

Similarly, computers are capable of tasks we humans cannot practically perform unaided, even though those tasks may be abstract ideas. Thus, the principle of preserving a public domain of abstract ideas demands that general-purpose computer uses of those abstract ideas

also remain "free to all men and reserved exclusively to none."[8]

In view of this important principle of maintaining a public domain, the Court has crafted rules around the exceptions to § 101. These rules eschew formalistic exegesis in favor of a practical analysis of the actual, effective scope of the claims. So, for example, "limiting the reach of the patent . . . to a particular technological use" does not render an abstract idea patentable. *Diehr*, 450 U.S. at 192 n.14. Nor does attachment of post-solution activity, for to hold otherwise "would make the determination of patentable subject matter depend simply on the draftsman's art and would ill serve the principles underlying the prohibition against patents for 'ideas.'" *Flook*, 437 U.S. at 584.

Generalizing from these cases, *Mayo* held that processes reciting laws of nature are not patentable unless they require "significantly more" than the natural law, thereby providing "practical assurance" that the claim is not "designed to monopolize the law of nature itself." 132 S. Ct. at 1297; *see also id.* at 1294 (claims must be limited "in practice"). Thus, said the Court, attachment of "well-understood, routine, conventional activity previously engaged by researchers in the field" will not render an otherwise ineligible claim patentable. *Mayo*, 132 S. Ct. at 1300.

Attachment of a general-purpose computer should also not render an abstract idea patentable, in view of

[8] Advances in computer hardware are of course themselves eligible for patent protection. *See CLS Bank*, 717 F.3d at 1292 (Lourie, J., concurring) (observing in dicta that computers *per se* are "surely patent-eligible machines"). Equally so would be advances in pencil technology. But these are distinguishable from mere annexation of abstract ideas to computers or pencils.

this clear precedent. Implementing an abstract idea in the form of an algorithm on a general-purpose computer is a "well-understood, routine, conventional activity," *id.*, that merely applies the algorithm in a "particular technological environment," *Bilski*, 130 S. Ct. at 3230 (quoting *Diehr*, 450 U.S. at 191–92). Any "competent draftsman" could append elements of a general-purpose computer to any algorithm. This case is distinguishable from *Diehr*, which found patentable an algorithm intimately tied to a specialized device, namely a rubber-curing machine, *see* 450 U.S. at 187, because unlike a rubber-curing machine, a computer is able to perform any possible algorithm or mathematical procedure.[9] Thus, in the claims at issue, the recitation of a general-purpose computer should not render the claims eligible under § 101.[10]

II. The Court Should Proactively Clarify the Law of Subject Matter Eligibility in Order to Avoid Further Errors Relating to Abstract Ideas

The Supreme Court has taken numerous subject matter eligibility cases recently. It does so because the Federal Circuit is in a confused state about the law of § 101, primarily because a small faction of that court repeatedly applies incorrect analytical techniques to improperly find patents eligible even when this Court's precedents demand otherwise.

To clearly enunciate the law for the Federal Circuit and to prevent the need for further appeals, this Court

[9] *But see* Alan M. Turing, *On Computable Numbers, with an Application to the* Entscheidungsproblem, 42 Proc. London Mathematical Soc'y 230, 259 (1936).

[10] The contention that general-purpose computers become "special-purpose computers" when executing particular software is addressed in Section C *infra* p. 18.

should explicitly reject those improper analytical techniques, some of which have been catalogued below.

A. The Court Should Enunciate the Inappropriateness of Using Specification Details to Evaluate Subject Matter Eligibility

In assessing whether a claim is ineligible under § 101, courts must consider the entire breadth of the claim. Claims directed to an abstract idea will still cover specific, concrete implementations of that abstract idea, so the mere fact that a claim covers a concrete implementation is no indicator that a claim is directed to eligible subject matter.

Nevertheless, certain judges of the Federal Circuit persistently err by relying on specific examples to find patent claims eligible. In the present case, the plurality opinion justified its finding that the system claims of the patents at issue were eligible, by selecting a complex-looking flowchart from the specification to point to the supposed complexity and concreteness of the claim. By doing so, they failed to contemplate the possibility that other, simpler, abstract ideas were *also* covered by that same claim—ideas such as the 14-line computer program presented in this brief.

Ironically, those same judges of the Federal Circuit criticize their opposed colleagues for failing to read the "claims as a whole." It is in fact those opposed colleagues who have actually read the claims as a whole, contemplating the vast scope of what they cover. It is that plurality of the Federal Circuit, instead, who fails to read the claims as a whole, focusing wrongly on specific examples and obfuscatory language that misleadingly make abstract ideas appear patentable.

B. The Court Should Reaffirm its Longstanding View that Mere Drafting Decisions, such as Choosing Between System and Method Claims, Do Not Affect Subject Matter Eligibility

The formalistic approach favored by some judges of the Federal Circuit lends to easy circumvention by clever patent drafting. For example, the suggestion that the method claims in the present case are ineligibile, while system claims directed to the same technology are eligible, simply encourages patent applicants to use system claims in order to skirt the abstract ideas test.

Granting such weight to mere formal drafting practices ignores the basic rationale behind the Supreme Court's exceptions to § 101. In explaining the basis for the three exceptions to § 101, this Court has applied the fundamental principle that patents must ultimately incentivize innovation. While patents on many inventions do serve this principle, patents to abstract ideas, laws of nature and physical phenomena would in fact deter innovation by taking away those "basic tools of research available to all."

Several judges of the Federal Circuit ignore this basic rationale. Judge Rader, for example, has intimated that the three exceptions to § 101 are essentially tautological, because one "cannot invent an abstract idea, law of nature or physical phenomenon" since they have been around the whole time.

This unduly narrow, formalistic view of the exceptions to § 101 fails to adequately protect the concerns about incentives for innovation explicitly relied upon by this Court. Under Judge Rader's view, mere addition of even the most insignificant step to an otherwise abstract method would suddenly make that abstract

method patentable, because the combination would not have existed before. The Court has specifically denounced this possibility, in holding numerous times that insignificant post-solution activity and pre-solution activity cannot render an otherwise abstract idea patentable.

See In re Johnson, 589 F.2d 1070, 1077 (C.C.P.A. 1978) ("*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.") (quoted in *In re Alappat*, 33 F.3d 1526, 1542 (Fed. Cir. 1994)).

C. Recitation of Details of a General-Purpose Computer Are Irrelevant for Patent Eligibility, Regardless of Detail

The exception's purpose is a practical one: prohibiting patents on abstract ideas would be meaningless if ideas could still be patented within certain technical domains, or with the addition of routine steps.

Implementing an abstract idea like an algorithm on a general-purpose computer does not provide the practical protection against monopoly that this Court's past cases require. Recognizing this, *Benson* held that a claim to a method of programming a general-purpose computer was an abstract idea ineligible for patent despite the fact that it required computer implementation. *Benson*, 409 U.S. at 71. The Court reasoned that because the claimed method had "no substantial practical application except in connection with a digital computer," the patent "in *practical effect* would be a patent on the algorithm itself." *Id.* at 71–72 (emphasis added).

The physical nature of a computer does not change this. Holding otherwise would "exalt[] form over substance," *see Flook*, 437 U.S. at 590, and endorse an un-

tenable legal fiction. The Federal Circuit case *In re Alappat*, which Alice and some of its *amici* cite approvingly, found that a general-purpose computer "in effect" becomes a patent-eligible special-purpose machine once it is programmed. *See* 33 F.3d 1526, 1545 (Fed. Cir. 1994). But this is like saying that a television screen is "special-purpose" at the moment it displays one frame from a movie, or, as Chief Judge Archer pointed out at the time, that a composer may patent the "structure" of a song as recorded on a compact disc. *See id.* at 1553–54 (Archer, C.J., dissenting). *Alappat*'s distinction between "apparatus" and unpatentable "mathematics," *id.* at 1545, is a fiction with no relevance to general-purpose machines that function through repeated logical operations.

This case is the Court's opportunity to reject the fiction that computers' physicality effectively limits the ideas they implement, continue its reasoning in *Mayo* and *Bilski*, and clearly hold that abstract ideas cannot be patented even when they are implemented on general-purpose computers.

The Federal Circuit repeatedly cites recitations of basic general purpose computing hardware as evidence that a claim is directed to eligible subject matter under § 101. This is often done by overstating this court's dicta in *Bilski*, that the "machine or transformation" test is an "important clue" in assessing subject matter eligibility.

The Court should clarify that mere recitation of general purpose platform technologies, such as general purpose computers, cannot render an otherwise ineligible claim eligible. Such a holding would be consistent with this Court's precedent, and more importantly would strongly advance the principles of incentivizing innovation, by protecting those "basic tools of innovation" meant to be "available to all."

As an analogy, consider a claim directed to the basic idea of addition, performed with paper and pencil. The paper and pencil could be described in great detail:

> Drawing one or more numerical figures, with a pencil comprising a wooden shaft substantially in the shape of a hexagonal prism, the wooden shaft surrounding a cylindrical graphite barrel, the wooden shaft having a distal end including a rubber eraser, the wooden shaft further having a proximal end sharpened to thereby expose a portion of the cylindrical graphite barrel.

Such a claim would certainly satisfy the machine-or-transformation test (a pencil is a machine of sorts, and the adherence of graphite to paper would constitute transformation of matter, among other things), but certainly such a claim would not be eligible subject matter, regardless of the level of detail. This is because paper and pencil are the basic tools of invention. To permit the patenting of abstract ideas merely tied to such basic tools would be tantamount to permitting the patenting of those abstract ideas alone.

Certain judges of the Federal Circuit criticize this approach, believing that it improperly imports questions of novelty and obviousness into § 101. However, as this Court's precedent makes clear, this is not the case. *See Flook*.

CONCLUSION

For the foregoing reasons, *amici* respectfully submit that the Court should affirm the district court.

Respectfully submitted,

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APPENDIX A

Implementation of Claim 26 of the '375 Patent in Seven Lines of Computer Code

The following seven-line computer program, written in the BASIC programming language, implements Claim 26 of the '375 Patent.[11]

---

10 LET *account1* = 200.00

20 LET *account3* = 300.00

30 INPUT "Value to exchange for transaction"; *exchange*

40 IF *account1* < *exchange* THEN PRINT "Inadequate value" : STOP

50 *account1* = *account1* − *exchange*

60 *account3* = *account3* + *exchange*

70 PRINT "Instruction to 1st institution: adjust 2nd account by "; −*exchange*

The subsequent text reviews the elements of the claim in detail and explains how a general-purpose computer, running the above computer program, would satisfy all the elements of the claim. For convenience, the entirety of the claim is reprinted in the next appendix.

CLAIM 26, PREAMBLE:

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

The preamble recites that the claim covers a general purpose computing system, called a "data processing system" by the claim language. The recitation that the system is "to enable the exchange of an obligation" is a state-

[11] A BASIC program interpreter to run this program is available at http://www.vintage-basic.net/.

ment of field of use or intended use, which should not contribute to the scope of the claim. *See Bilski*, 130 S. Ct. at 3231 ("[L]imiting an abstract idea to one field of use . . . did not make the concept patentable."); U.S. Patent & Trademark Office, *Manual of Patent Examining Procedure* § 2103(I)(C) (8th ed., 9th rev. 2012) [hereinafter MPEP] (instructing that "statements of intended use or field of use" "may raise a question as to the limiting effect of the language in a claim").

CLAIM 26, ELEMENTS 1–2:

a communications controller,

a first party device, coupled to said communications controller,

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These elements recite general hardware inherent in a general purpose computer. A "communications controller" broadly refers to a component of a computer that receives and processes communications, and a "first party device" could refer to any computer hardware.[12] A computer must communicate with its users in order to be useful, so these components are necessary to any computer.

CLAIM 26, ELEMENTS 3–5:

[12]Petitioner has at least once described the communications controller as a device "that allows communications over a wide-area network." Alice Corp. Pty. Ltd.'s Renewed Cross-Motion for Partial Summary Judgment as to Subject Matter Eligibility at 6, *CLS Bank Int'l v. Alice Corp.*, 768 F. Supp. 2d 221 (Dist. D.C. Sept. 22, 2010) (No. 1:07-cv-974) (Doc. No. 95). But the text of the patent belies that limited definition. *See* '375 Patent col. 7, ll. 46–57 ("A number of communications controllers . . . effect communications between the processing units and various external hardware devices . . . . A large range of communications hardware products are supported, and collectively are referred to as the stakeholder input/output devices." (reference numbers omitted)).

a data storage unit having stored therein

(a) information about a first account for a first party, independent from a second account maintained by a first exchange institution, and

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

---

COMPUTER CODE, LINES 10–20:

10 LET *account1* = 200.00

20 LET *account3* = 300.00

These elements of the claim simply require that a computer store two numbers representing account balances. The "data storage unit" might be any computer storage component, such as a hard disk or memory. The "information about" the first and third accounts broadly encompass any account information, such as an account balance.

The recitations that the information be stored "independent from" various accounts maintained by exchange institutions are simply statements of intended use, which should not contribute to the patentability of the claim. Petitioners have never suggested that the external exchange institutions are necessary parties to infringement of their claims. Furthermore, so long as the two stored numbers reflect actual account balances in external banks, the "independent from" limitations are satisfied.

The computer code implements these elements of the claim by instructing a computer to store two account balances, into variables named *account1* and *account3*.

CLAIM 26, ELEMENT 6:

a computer, coupled to said data storage unit and said communications controller, that is configured to

This element is simply further recitation of details about a general purpose computer. Any computer would necessarily be coupled to a data storage unit, so that it might access data for processing, and further be coupled to a communications controller, so that it may receive and output information.

CLAIM 26, ELEMENT 7:

(a) receive a transaction from said first party device via said communications controller;

COMPUTER CODE, LINE 30:

30 INPUT "Value to exchange for transaction"; *exchange*

According to this element, the computer receives a "transaction." An exchange of money between two accounts is one type of transaction. Thus, this element requires nothing more than receipt of an instruction to transfer money between two accounts.

The computer code implements this by requesting input of an amount of money to transfer between the first and third account. Upon running this line of code, a computer would print out a prompt message, and then await an outside user to enter a number indicating the amount of money to transfer. The amount to exchange is stored in a variable named *exchange*.

CLAIM 26, ELEMENT 8:

(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

COMPUTER CODE, LINES 40–60:

```
40 IF account1 < exchange THEN PRINT "Inadequate
     value" : STOP
50 account1 = account1 − exchange
60 account3 = account3 + exchange
```

This element describes two operations. First, a computer must check that at least one of the accounts has a large enough balance to permit the desired transfer of money ("ensuring that said first party . . . ha[s] adequate value in said first account"). Second, the computer must record the transfer by adjusting the balances of the accounts ("electronically adjust said first account and said third account").

Note the substantial presence of inoperative language in this claim element. The recitation "in order to effect an exchange obligation arising from said transaction between said first party and said second party" does nothing more than reiterate that the computer is transferring money between accounts. Furthermore, the claim recites that the computer must ensure "adequate value in said first account and/or said third account," and the disjunctive "and/or" means that the claim element is satisfied if only one of those accounts is checked. *See* MPEP, *supra*, § 2103(I)(C) ("Language that suggests or makes optional but does not require steps to be performed . . . does not limit the scope of a claim or claim limitation.").

The computer code implements the step of checking the account balances at line 40, which halts execution (with STOP) if the balance of *account1* is less than the amount to be exchanged. The code implements the step

of effecting the transfer at lines 50–60, which deducts the amount to be exchanged from *account1* and adds that amount to *account3*.

CLAIM 26, ELEMENT 9:

(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.

COMPUTER CODE, LINE 70:

70 PRINT "Instruction to 1st institution: adjust 2nd account by "; *–exchange*

This claim element requires only that a computer display an instruction to perform the desired transfer of money. The claim element recites "an instruction to said first exchange institution and/or said second exchange institution," but the disjunctive "and/or" means that a single instruction suffices. Similarly, the recitation of an instruction "to adjust said second account and/or said fourth account" only requires an instruction with regard to a single account.

The requirement that the instruction be "an irrevocable, time invariant obligation" is merely a statement of intended use that should not contribute to the patentability of the claim. An instruction is simply a text, and the recipient of the instruction chooses whether to treat that text as irrevocable or time-invariant. Although this claim language could plausibly have been defined in the specification to require some sort of special format for the instruction, Petitioners have never identified any such spe-

cial definition in any of their briefs to this Court, the Federal Circuit, or the district court,[13] and the text of the specification contains neither term outside of the claims. Furthermore, even if these terms did have some special meaning, it would only dictate the content of the instruction text, and content of text does not contribute to patentability.

The computer code implements this element by causing a computer to print an instruction to adjust the second account. The instruction directs the first institution to deduct the amount *exchange* from the account.

[13]The district court briefs reviewed are identified on the docket as Documents Nos. 53, 54, 68, 95, and 99. The Federal Circuit briefs reviewed are identified on the docket as Documents Nos. 22, 33, 41, and 194.

APPENDIX B

Claim 26 of the '375 Patent

Numbers, in square brackets, have been inserted before each element of the claim, to assist in referring to claim elements within the brief.

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

[1] a communications controller,

[2] a first party device, coupled to said communications controller,

[3] a data storage unit having stored therein

[4] (a) information about a first account for a first party, independent from a second account maintained by a first exchange institution, and

[5] (b) information about a third account for a second party, independent from a fourth account maintained by a second exchange institution; and

[6] a computer, coupled to said data storage unit and said communications controller, that is configured to

[7] (a) receive a transaction from said first party device via said communications controller;

[8] (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

[9] (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.