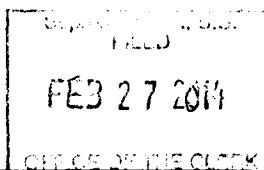


No. 13-298



In the
Supreme Court of the United States

ALICE CORPORATION PTY. LTD.,

PETITIONER,

v.

CLS BANK INTERNATIONAL, ET AL.,

RESPONDENTS.

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

**BRIEF OF GOOGLE INC., AMAZON.COM INC.,
AMERICAN ASSOCIATION OF ADVERTISING
AGENCIES, DELL INC., FACEBOOK, INC., INTUIT
INC., LINKEDIN CORP., NETFLIX, INC.,
RACKSPACE HOSTING, INC., VERIZON
COMMUNICATIONS INC., AND ZYNGA INC. AS
AMICI CURIAE IN SUPPORT OF RESPONDENTS**

ADAM M. CONRAD
KING & SPALDING LLP
100 N. Tryon St., Suite 3900
Charlotte, NC 28202
(704) 503-2600

DARYL L. JOSEFFER
Counsel of Record
KAREN F. GROHMAN
KING & SPALDING LLP
1700 Pennsylvania Ave., NW
Washington, DC 20006
(202) 737-0500
djoeffe@kslaw.com

Counsel for Amici Curiae

February 27, 2014

BLANK PAGE

TABLE OF CONTENTS

INTEREST OF <i>AMICI CURIAE</i>	1
INTRODUCTION AND SUMMARY OF ARGUMENT.....	2
ARGUMENT.....	4
I. A PATENT CLAIM MUST DISCLOSE AND LIMIT ITSELF TO A SPECIFIC WAY OF IMPLEMENTING AN ABSTRACT IDEA.	4
A. Only Specific, Inventive Applications Of An Idea Are Patentable.	4
B. Generic References To Computer Implementation Do Not Transform Unpatentable Ideas Into Patentable Applications.....	6
C. This Court Should Reiterate That Its Recent Section 101 Decisions Mean What They Say.....	11
1. Section 101's Substantive Limitation On Patentability Cannot Be Evaded By Clever Drafting And Is Not Coextensive With Other Limitations On Patent Protection.....	12
2. The Category Of "Abstract Ideas" Is Not Vanishingly Narrow.....	15
II. THE COURT SHOULD REJECT PROCEDURAL BARRIERS THE FEDERAL CIRCUIT RECENTLY ERECTED TO THE CONSIDERATION OF SECTION 101 DEFENSES.	18

A. Patent Eligibility Can And Should Be Resolved At The Outset Of Most Cases.	18
B. There Is No Valid Reason To Apply A Heightened Burden Of Proof On This Legal Question.	23
III. A PLAGUE OF ABSTRACT COMPUTER-RELATED PATENTS IS IMPAIRING AND TAXING INNOVATION IN THE HIGH-TECH SECTOR.	25
CONCLUSION	35

TABLE OF AUTHORITIES

Cases

<i>Accenture Global Servs., GmbH v.</i> <i>Guidewire Software, Inc.</i> , 728 F.3d 1336 (Fed. Cir. 2013)	9
<i>Addington v. Texas</i> , 441 U.S. 418 (1979).....	24
<i>Ass’n for Molecular Pathology v.</i> <i>Myriad Genetics, Inc.</i> , 133 S. Ct. 2107 (2013).....	4
<i>Ass’n for Molecular Pathology v. U.S. PTO</i> , 653 F.3d 1329 (Fed. Cir. 2011), <i>vacated</i> , 132 S.Ct. 1794 (2012)	22
<i>Ass’n for Molecular Pathology v. U.S. PTO</i> , 689 F.3d 1303 (Fed. Cir. 2012), <i>rev’d</i> , 133 S. Ct. 2107 (2013).....	19
<i>Bancorp Servs., L.L.C. v.</i> <i>Sun Life Assur. Co. of Can. (U.S.)</i> , 687 F.3d 1266 (Fed. Cir. 2012)	20
<i>Bilski v. Kappos</i> , 130 S. Ct. 3218 (2010).....	passim
<i>Branson Sch. Dist. RE-82 v. Romer</i> , 161 F.3d 619 (10th Cir. 1998).....	24
<i>Cardpool, Inc. v. Plastic Jungle, Inc.</i> , No. 12-4182, 2013 WL 245026 (N.D. Cal. Jan. 22, 2013)	21
<i>Compression Tech. Solutions LLC v. EMC Corp.</i> , No. 12-cv-1746, 2013 WL 2368039 (N.D. Cal. May 29, 2013)	20, 21

<i>Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n, Nos. 12-2501, -6960, 2013 WL 3964909 (D.N.J. July 31, 2013)</i>	21
<i>CyberFone Sys. LLC v. Cellco P’Ship, 885 F. Supp. 2d 710 (D. Del. 2012), aff’d, Nos. 2012-1673, -1674 (Fed. Cir. Feb. 26, 2013)</i>	21
<i>Cyberfone Sys., LLC v. CNN Interactive Group, Inc., Nos. 2012-1673, -1674, slip op. (Fed. Cir. Feb. 26, 2013)</i>	17, 20
<i>CyberSource Corp. v. Retail Decisions, Inc., 620 F. Supp. 2d 1068 (N.D. Cal. 2009), aff’d, 654 F.3d 1366 (Fed. Cir. 2011).....</i>	21
<i>CyberSource Corp. v. Retail Decisions, Inc., 654 F.3d 1366 (Fed. Cir. 2011)</i>	17
<i>Dealertrack, Inc. v. Huber, 674 F.3d 1315 (Fed. Cir. 2012)</i>	17
<i>Diamond v. Chakrabarty, 447 U.S. 303 (1980).....</i>	16
<i>Diamond v. Diehr, 450 U.S. 175 (1981).....</i>	10
<i>Digitech Info. Sys., Inc. v. BMW Fin. Servs. NA, LLC, 864 F. Supp. 2d 1289 (M.D. Fla. 2012)</i>	20, 21
<i>Eon-Net LP v. Flagstar Bancorp, 653 F.3d 1314 (Fed. Cir. 2011)</i>	23
<i>Fort Props., Inc. v. Am. Master Lease LLC, 671 F.3d 1317 (Fed. Cir. 2012)</i>	17

<i>Funk Bros. Seed Co. v. Kalo Inoculant Co.</i> , 333 U.S. 127 (1948).....	14
<i>General Elec. Co. v. Wabash Appliance Corp.</i> , 304 U.S. 364 (1938).....	27
<i>Gottschalk v. Benson</i> , 409 U.S. 63 (1972).....	5, 9, 10, 17
<i>Graff/Ross Holdings LLP v.</i> <i>Fed. Home Loan Mortg. Corp.</i> , 892 F. Supp. 2d 190 (D.D.C. 2012).....	21
<i>Halliburton Oil Well Cementing Co. v. Walker</i> , 329 U.S. 1 (1946).....	27
<i>Holland Furniture Co. v. Perkins Glue Co.</i> , 277 U.S. 245 (1928).....	27
<i>In re Alappat</i> , 33 F.3d 1526 (Fed. Cir. 1994) (en banc).....	28
<i>In re Comiskey</i> , 554 F.3d 967 (Fed. Cir. 2009)	17
<i>In re Johnston</i> , 502 F.2d 765 (C.C.P.A. 1974)	11
<i>In re Schrader</i> , 22 F.3d 290 (Fed. Cir. 1994).....	17
<i>In re Winship</i> , 397 U.S. 358 (1970).....	24
<i>J.E.M. Ag Supply, Inc. v.</i> <i>Pioneer Hi-Bred Int’l, Inc.</i> , 534 U.S. 124 (2001).....	5, 26
<i>KSR Int’l Co. v. Teleflex, Inc.</i> , 550 U.S. 398 (2007).....	24
<i>Lear, Inc. v. Adkins</i> , 395 U.S. 653 (1969).....	24

<i>LeRoy v. Tatham</i> , 55 U.S. (14 How.) 156 (1852)	16
<i>Lighting Ballast Control LLC v.</i> <i>Philips Elecs. N. Am. Corp.</i> , No. 2012-1014, slip op. (Fed. Cir. Feb. 21, 2014)	19
<i>Lumen View Tech. LLC v. Findthebest.com, Inc.</i> , __ F. Supp. 2d __, 2013 WL 6164341 (S.D.N.Y. Nov. 22, 2013)	21
<i>Markman v. Westview Instruments, Inc.</i> , 517 U.S. 370 (1996)	19
<i>Mayo Collaborative Servs. v.</i> <i>Prometheus Labs. Inc.</i> , 132 S. Ct. 1289 (2012)	passim
<i>Medtronic, Inc. v.</i> <i>Mirowski Family Ventures, LLC</i> , 134 S. Ct. 843 (2014)	24
<i>Microsoft Corp. v. i4i Ltd. P'ship</i> , 131 S. Ct. 2238 (2011)	24, 25
<i>Newell Cos., Inc. v. Kenney Mfg. Co.</i> , 864 F.2d 757 (Fed. Cir. 1988)	24
<i>O'Reilly v. Morse</i> , 56 U.S. (15 How.) 62 (1853)	5
<i>OIP Techs., Inc. v. Amazon.com, Inc.</i> , No. 12-cv-1233, 2012 WL 3985118 (N.D. Cal. Sept. 11, 2012)	20, 21
<i>Parker v. Flook</i> , 437 U.S. 584 (1978)	5, 9, 10, 13
<i>Precision Instrument Mfg. Co. v.</i> <i>Auto. Maint. Mach. Co.</i> , 324 U.S. 806 (1945)	24

<i>Sinclair-Allison, Inc. v.</i> <i>Fifth Ave. Physician Servs., LLC</i> , No. 12-cv-360, 2012 WL 6629561 (W.D. Okla. Dec. 19, 2012).....	21
<i>SmartGene, Inc. v.</i> <i>Advanced Biological Labs., SA</i> , 852 F. Supp. 2d 42 (D.D.C. 2012).....	20, 21
<i>SSIH Equip. S.A. v. U.S. ITC</i> , 718 F.2d 365 (Fed. Cir. 1983)	24
<i>State Indus., Inc. v. A.O. Smith Corp.</i> , 751 F.2d 1226 (Fed. Cir. 1985)	27
<i>Superior Indus. v. Masaba</i> , No. 13-1302, 2014 WL 163046 (Fed. Cir. Jan. 16, 2014)	22
<i>TiVo Inc. v. EchoStar Corp.</i> , 646 F.3d 869 (Fed. Cir. 2011)	27
<i>Ultramercial, Inc. v. Hulu, LLC</i> , 722 F.3d 1335 (Fed. Cir. 2013), <i>cert. filed sub nom.</i> <i>WildTangent Inc. v. Ultramercial LLC</i> , No. 13-255 (Aug. 23, 2013)	passim
Statutes	
35 U.S.C. § 101	passim
35 U.S.C. § 102	12, 13, 14, 15
35 U.S.C. § 103	12, 13, 14, 15
Rules	
Fed. R. Civ. P. 16	22

Other Authorities

- Allison, John R. *et al.*,
Patent Litigation and the Internet,
 2012 Stan. Tech. L. Rev. 3..... 30
- Bessen, James & Michael J. Meurer,
Patent Failure: How Judges, Bureaucrats,
and Lawyers Put Innovators at Risk (2008) ... 30, 33
- Bessen, James *et al.*,
Private and Social Costs of Patent Trolls,
 34 Regulation 26 (2011)..... 34
- Bessen, James,
A Generation of Software Patents
 (Aug. 2011) 28, 29
- Besson, James, & Michael Meurer,
The Direct Costs from NPE Disputes
 (forthcoming Cornell L. Rev. 2014) 31, 34
- Chien, Colleen & Aashish Karkhanis,
Software Patents & Functional Claiming
 (Feb. 12, 2013)..... 34
- Collins, Kevin E.,
Patent Law's Functionality Malfunction and
the Problem of Overbroad, Functional
Software Patents,
 90 Wash. L. Rev. 1399 (2013) 26, 30
- Dep't of Commerce,
Patent Reform: Unleashing Innovation,
Promoting Economic Growth & Producing
High-Paying Jobs (Apr. 13, 2010) 33
- Fed. Trade Comm'n,
The Evolving IP Marketplace (Mar. 2011) 33

Gov't Accountability Office, <i>Intellectual Property: Assessing Factors that Affect Patent Infringement Litigation Could Help Improve Patent Quality</i> (Aug. 2013).....	30
Lemley, Mark A. <i>et al.</i> , <i>Life After Bilski</i> , 63 Stan. L. Rev. 1315 (2011).....	26, 27
Lemley, Mark A., <i>Software Patents and the Return of Functional Claiming</i> , 2013 Wisc. L. Rev. 905.....	26
Love, Brian J., <i>No: Software Patents Don't Spur Innovation, but Impede It</i> , Wall Street J. (May 13, 2013).....	29, 31
Love, Brian J., <i>Why Patentable Subject Matter Matters for Software</i> , 81 Geo. Wash. L. Rev. Arguendo 1 (2012).....	23
Luce, Peter T., <i>Hiding Behind Borders in a Borderless World: Extraterritoriality Doctrine and the Inadequacy of U.S. Software Patent Protections in a Networked Economy</i> , 10 Tul. J. Tech. & Intell. Prop. 259 (2007).....	26
Mann, Ronald J., <i>Do Patents Facilitate Financing in the Software Industry?</i> , 83 Tex. L. Rev. 961 (2005)	25
Memorandum from Bill Gates, <i>Challenges and Strategy</i> (May 16, 1991)	28

Patent Freedom, <i>Investigations into NPE Litigation Involving Business Method Patents</i> (Sept. 4, 2013)	32
Patent Freedom, <i>The Growing Use of Business Method Patents in NPE Litigation</i> (Sept. 4, 2013).....	32
RPX Corp., <i>NPEs Have Broader Impact Than GAO Headlines Suggest</i> (Sept. 9, 2013)	34
RPX Corp., <i>Tracking PAE Activity</i> (Jan. 23, 2013).....	34
Shapiro, Carl, <i>Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard Setting,</i> 1 Innovation Pol’y & Econ. 119 (2000)	31
Testimony of Douglas Brotz, Adobe Systems, Inc., PTO Hearing (Jan. 26, 1994).....	28, 29
Testimony of Jerry Baker, Oracle Corp., PTO Hearing (Jan. 26, 1994).....	29
The White House, <i>Patent Assertion and U.S. Innovation</i> (June 2013).....	30, 34

INTEREST OF *AMICI CURIAE*¹

Amici include companies and a trade association with members that are innovative leaders in a variety of high-technology fields, including online search, advertising, commerce, collaboration, social networking, gaming, open source software, web hosting, computing, and related products and services. Their products and services are used by everyday citizens, Wall Street investment firms, Fortune 500 companies, and the United States government. Having obtained a number of patents based on their own extensive research and development efforts, and having had to defend against claims of patent infringement, the *amici* companies and trade association members support a high-quality patent system that rewards rather than impedes innovation.

¹ All parties have filed blanket consent letters with the Clerk. No counsel for any party authored this brief in whole or in part, and no person or entity, other than *amici* or their counsel, made a monetary contribution intended to fund the preparation or submission of this brief.

INTRODUCTION AND SUMMARY OF ARGUMENT

Patents that merely claim abstract ideas implemented on computers or over the Internet are invalid under 35 U.S.C. § 101. Such patents add nothing meaningful to the abstract idea. Instead, the significant work comes later, when others undertake the innovative task of developing specific applications. That is the work that may be eligible for patent protection; merely claiming computer implementation of an abstract idea—without reciting *how* to implement the idea with a computer—is not.

This brief focuses on three points. *First*, in determining whether a patent claims an unpatentable abstract idea or a patentable application of the idea, this Court has looked to the generality and breadth of a patent claim by asking whether it contains specific, inventive limitations apart from the idea itself. Under that test, patent claims that simply describe an abstract idea such as financial intermediation, and generically recite the use of conventional computer or other data processing equipment to carry out that idea, are not patentable. Instead, a claim must disclose and limit itself to a specific way of implementing the idea with a computer or computing system. This Court has already rejected the counter-arguments advanced by Alice, its *amici*, and the dissenting judges below.

Second, patent eligibility should generally be resolved as a matter of law at the outset of a case. Even though this “threshold” requirement performs an important “screening” function (*Mayo Collaborative Servs. v. Prometheus Labs. Inc.*, 132 S.

Ct. 1289, 1303 (2012)), some Federal Circuit judges recently imposed novel procedural roadblocks to a timely and fair adjudication of the question. They stated that patent eligibility should not generally be resolved at the pleading stage, and instead should await formal claim construction or other factual proceedings in most cases. Section 101 presents a question of law, however, and experience has shown that claim construction proceedings are generally not required for this purpose. The Federal Circuit also held that defendants must prove patent ineligibility by clear-and-convincing *evidence*—even though burdens of proof are irrelevant to questions of law. This Court should reject these procedural hurdles, which would negate Section 101’s threshold screening function and render it toothless in most cases.

Third, rigorous and timely application of this Court’s Section 101 jurisprudence is especially important in this context because abstract software patents have become a plague on computer-related industries. The software industry developed and flourished without abstract patents before changes in the Federal Circuit’s jurisprudence led to a flood of them. Far from promoting innovation, abstract software patents have impaired it by granting exclusive rights over high-level ideas and thereby blocking others from undertaking the truly innovative task of developing specific applications. In light of the ever-growing use of computerized equipment in a wide variety of settings, abstract software patents would stifle innovation in an increasingly wide circle of industries.

ARGUMENT

I. A PATENT CLAIM MUST DISCLOSE AND LIMIT ITSELF TO A SPECIFIC WAY OF IMPLEMENTING AN ABSTRACT IDEA.

A. Only Specific, Inventive Applications Of An Idea Are Patentable.

An “abstract idea, law of nature, or mathematical formula” may not be patented, even if dressed up as a series of steps in the form of a “process.” *Bilski v. Kappos*, 130 S. Ct. 3218, 3230–31 (2010); *see also Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013); *Mayo Collaborative Servs. v. Prometheus Labs. Inc.*, 132 S. Ct. 1289, 1297 (2012). An *application* of an abstract idea or natural law may be patentable. *See Mayo*, 132 S. Ct. at 1294. But to cross the line from an unpatentable abstract idea to a patentable application, a patent claim must “contain other elements or a combination of elements, sometimes referred to as an ‘inventive concept,’ sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the” unpatentable subject matter. *Id.*

In *Mayo*, this Court identified three main guideposts for determining whether, in substance, a patent claim amounts to significantly more than its underlying abstract idea: (1) adding conventional or obvious steps is insufficient to confer patentable subject matter, *see id.* at 1294, 1298, 1299; (2) adding general and non-specific steps that do not significantly limit the claim’s scope is insufficient, *see id.* at 1300, 1302; and (3) limiting an idea to a

particular technological environment is insufficient, *see id.* at 1294, 1297.

These criteria focus on the generality and breadth of a patent claim by requiring that it be sufficiently specific and limited to provide “practical assurance” that a claimed “process is more than a drafting effort designed to monopolize” an abstract idea. *Id.* at 1297. The *Mayo* analysis thereby ensures that a patent’s relative contribution to human knowledge justifies the extent to which it forecloses the field. *See id.* at 1301–02; *Bilski*, 130 S. Ct. at 3230; *O’Reilly v. Morse*, 56 U.S. (15 How.) 62, 113 (1853).

Mayo governs the patent eligibility of all inventions, including computer-implemented ones. Because Congress “designed [Section 101] to encompass new and unforeseen inventions,” its plain language treats all technologies alike. *See J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred Int’l, Inc.*, 534 U.S. 124, 135 (2001). For that reason, *Mayo* itself relied on decisions of this Court holding that various computer-related inventions were not patentable subject matter. *See* 132 S. Ct. at 1293 (citing *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972); *Parker v. Flook*, 437 U.S. 584, 590 (1978)). As this Court explained, “patent law’s general rules must govern inventive activity in many different fields of human endeavor.” *Id.* at 1305.

B. Generic References To Computer Implementation Do Not Transform Unpatentable Ideas Into Patentable Applications.

Under *Bilski*, this is an easy case because Alice's idea of financial intermediation is indistinguishable from the idea of hedging risk that *Bilski* held to be abstract and unpatentable.

1. *Bilski* invalidated patent claims that recited a series of steps for hedging risk, including, among other things: initiating a series of financial transactions between providers and consumers of a commodity; identifying market participants that have a counter-risk for the same commodity; and initiating a series of transactions between those market participants and the commodity provider. 130 S. Ct. at 3223–24. Alice's patent does the same thing with the abstract idea of financial intermediation. When read as a whole, the asserted claims simply divide the idea into its constituent parts: "(a) creating a debit and credit account for each party, (b) checking the account balances in the morning, (c) adjusting the account balances through the day, and (d) paying the parties at the end of the day if both parties have performed." Pet.App. 164a (Prost, J., dissenting from panel opinion).

As the plurality opinion below explained, those are the things that one would either necessarily or conventionally do in order to perform financial intermediation. Pet.App. 29a–31a. Because those steps do not add anything meaningful or inventive to the abstract idea of financial intermediation, they do not confer patent eligibility. Indeed, *Bilski*

invalidated claims, like Alice’s, that contained a number of limitations related to the performance of a financial transaction, and described the method in some detail, but added nothing inventive to an abstract idea or natural law. *See Bilski*, 130 S. Ct. at 3231 (invalidating claims that were limited to the energy markets and “instruct[ed] the use of well-known random analysis techniques to help establish some of the inputs into the equation”); *see also Mayo*, 132 S. Ct. at 1297–98, 1302 (invalidating claims that involved administration of a drug but added nothing inventive to a natural law).

Those claims, and others like them, do not warrant patent protection because they add nothing *inventive* to the unpatentable subject matter. “[T]he underlying functional concern . . . is a *relative* one: how much future innovation is foreclosed relative to the contribution of the inventor.” *Mayo*, 132 S. Ct. at 1303.

The difference between this case and *Bilski* is that some of Alice’s claims generically recite the use of conventional computer equipment in performing the claimed method. Claim 1, for example, recites a “computer . . . configured to” perform financial intermediation and a “data storage unit” containing software. Pet.App. 35a. Other claims refer vaguely to a “first party device” or “communications controller.” *Id.* at 36a. As the plurality below explained, these references merely “recite a handful of computer components in generic, functional terms that would encompass any device capable of performing the same ubiquitous calculation, storage, and connectivity functions.” *Id.* at 37a.

Because these claims do not recite a specific way of implementing financial intermediation with a computer or computing system, they pass *none* of the *Mayo* guideposts. The computer-implementation limitations are too general to confer patent eligibility; indeed, they impose no limit whatsoever on *how* a computer program or specialized hardware accomplishes the financial-intermediation function. Alice may well be right that the claims contemplate “a substantial and meaningful role for [a] computer,” Pet. Br. 48, in the sense that a computer plays an important role in *any* computer-implemented method. But generic references to computer equipment—be it a general-purpose computer, storage unit, server, router, telephone, or any other term denoting conventional data storage or processing hardware—provide none of the specificity needed for an actual application of an abstract idea.

As their lack of specificity suggests, the claims set forth nothing inventive about how to implement the abstract idea of financial intermediation on a computer. The dissenting Federal Circuit judges found it important that the asserted claims cover computer equipment “specifically programed to solve a complex problem.” Pet.App. 73a (Rader, C.J., concurring-in-part and dissenting-in-part). But the claims do not disclose or limit themselves to any specific (let alone inventive) implementation. To the extent that performing the claimed method on a computer would require a novel or complex program, the patent claims do not disclose or limit themselves to it. On the other hand, to the extent that programming a computer to satisfy the claim

limitations requires only the ordinary knowledge of programmers, it adds nothing inventive.

As a result, Alice’s insistence that the claims must be read as a whole, in light of all of their limitations, is correct but beside the point. Nothing in the asserted claims discloses or limits them to the use of any new software, hardware, or other implementation.

Alice is therefore forced to rely on the mere fact that its claims are performed on a computer. Pet. Br. 37–40. Indeed, Alice argues that computer-implemented inventions “rarely” if ever claim unpatentable subject matter. *Id.* at 19; *accord id.* at 36. As the third *Mayo* guidepost makes clear, however, claims that simply recite an abstract idea in a specific technological environment, such as a computerized environment, are not patentable. *See, e.g., Mayo*, 132 S. Ct. at 1294, 1297; *Bilski*, 130 S. Ct. at 3231. Absent additional, significant limitations, the idea remains abstract within that environment.

Computer limitations are no different from other limitations in that regard. *See* p. 7–8, *supra*. Indeed, the invalid claim in *Benson* was limited to a computerized environment, and the invalid claims in *Flook* likewise covered an algorithm. *See Benson*, 409 U.S. at 65; *Flook*, 437 U.S. at 586. Like other limitations, therefore, computer limitations could make a claim eligible for patenting only if they: (i) added a significant, innovative aspect to an otherwise abstract idea; and (ii) were included in (and thereby limited) the claim. *See Mayo*, 132 S. Ct. at 1294, 1297; *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1344–45 (Fed. Cir. 2013). The ubiquity of computers in

modern life and commerce makes it especially important not to exempt computer-related inventions from the rules governing patent-eligibility of all other inventions.

2. The same analysis applies to all of the asserted claims. Although some have argued that the prohibition on patenting abstract ideas is limited to method claims, Section 101 draws no distinction between its treatment of methods and products. See 35 U.S.C. § 101. In *Benson*, therefore, this Court determined that “the same principle applies” to “product” and “process” claims. 409 U.S. at 67–68.

Treating all claims alike is necessary to prevent ready evasion of Section 101. A computer-implemented method can always be recast as a claim to: (i) a computer-readable medium (such as a disk) on which instructions for performing the method are stored; or (ii) a system capable of performing the method. Absent additional specificity, such claims are every bit as abstract as claims to the underlying method, and are thus unpatentable for the same reasons. As this Court has repeatedly held, Section 101’s limitations are substantive, not formalistic, and thus cannot be evaded by the drafter’s art. See, e.g., *Mayo*, 132 S. Ct. at 1294; *Diamond v. Diehr*, 450 U.S. 175, 192 (1981); *Flook*, 437 U.S. at 590; see also Pet.App. 33a.

Of course, a novel storage medium or a novel method of saving a program to a storage medium might be patentable. But the routine and conventional act of embedding software in storage media adds no inventive concept to an otherwise unpatentable abstract idea. Nor does it impose any meaningful limitation on the claim, because software

must be saved to a storage medium to be used for its intended purpose.

Similarly, the system claims' generic description of conventional computer equipment capable of performing Alice's method adds nothing meaningful to the method itself; it is just another way of describing the method. Indeed, "every competent draftsman' knows how to cast method claims 'in machine system form.'" Pet.App. 36a–37a (quoting *In re Johnston*, 502 F.2d 765, 773 (C.C.P.A. 1974) (Rich, J., dissenting)). Thus, upholding any of Alice's claims would make Section 101 a dead letter by sanctioning obvious end-runs around its requirements for patentability.

**C. This Court Should Reiterate That Its
Recent Section 101 Decisions Mean
What They Say.**

The asserted claims' invalidity under this Court's precedents is further confirmed by the fact that Alice and its supporters have relied on a series of rationales this Court already rejected. See Pet.App. 160a (Prost, J., dissenting from panel opinion) (criticizing panel majority for "resist[ing] the Supreme Court's unanimous directive to apply the patentable subject matter test with more vigor"); *cf. Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1345 (Fed. Cir. 2013) (Lourie, J., concurring) (criticizing panel majority in similar case for not "follow[ing] the Supreme Court's most recent guidance regarding patent eligibility"), *petition for cert. filed sub nom. WildTangent Inc. v. Ultramercial LLC*, No. 13-255 (Aug. 23, 2013). Although this Court could give short shrift to their arguments for

that reason, the Court should, instead, be especially clear and specific in rejecting those arguments once again.

**1. Section 101’s Substantive Limitation
On Patentability Cannot Be Evaded
By Clever Drafting And Is Not
Coextensive With Other Limitations
On Patent Protection.**

The primary debate within the Federal Circuit has been whether Section 101 imposes an important substantive limitation on patentability, or instead is a mostly irrelevant provision that leaves the work of separating patentable from unpatentable inventions to other provisions of the Patent Act. One of the opinions below suggested, for example, that reading Section 101 to contain anything more than a “narrow” exception to patent eligibility is “impermissibly in tension with the statute’s plain language and design.” Pet.App. 66a–67a (Rader, C.J., concurring-in-part and dissenting-in-part). Under that view, the “substantive” restrictions on patentability are set forth elsewhere in the Patent Act, such as in the novelty and non-obviousness requirements of 35 U.S.C. §§ 102 and 103, leaving Section 101 to serve only a limited role as a “coarse eligibility filter.” *Ultramercial*, 722 F.3d at 1341; *see also* Pet.App. 112a (Newman, J., concurring-in-part and dissenting-in-part); *see also, e.g., id.* at 52a (Rader, J., concurring-in-part and dissenting-in-part).

Mayo confirmed, however, that the “threshold” requirements of Section 101 are hardly a coarse filter; instead, they perform an important

“screening” function—as the provision’s placement at the beginning of the Patent Act suggests. *See Mayo*, 132 S. Ct. at 1303. Indeed, this Court has repeatedly held that Section 101 *is* substantive, and therefore cannot be evaded by the drafter’s art. *See* pp. 5, 10–11, *supra*. That is why this Court has long held that a patentee cannot convert unpatentable subject matter into patentable subject matter simply by writing it in the form of a method consisting of a series of steps, adding token or conventional limitations, or limiting the claim to a particular technological context. *See* p. 10, *supra* (citing cases).

Some Federal Circuit judges have nonetheless opined that whether a patent claim contains an “inventive concept” is wholly irrelevant to Section 101 because the novelty and non-obviousness requirements of Sections 102 and 103 (and only those requirements) address inventiveness. Pet.App. 45a–52a (Rader, C.J., concurring-in-part and dissenting-in-part). *Mayo* rejected that formalistic view and expressly “recognize[d]” the “overlap” between Section 101 and the other requirements for patentability. *Mayo*, 132 S. Ct. at 1303–04.

Even apart from *Mayo*, the dissenting judges’ objection to considering inventiveness in the Section 101 analysis falters on other controlling precedents of this Court and the statutory text. In *Flook* and *Funk Brothers*, the Court emphasized that the discovery of a mathematical formula or natural phenomenon “cannot support a patent unless there is some other inventive concept in its application,” and invalidated patent claims under Section 101 for that very reason. *Flook*, 437 U.S. at 594; *accord Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S.

127, 127–28 (1948). The statutory text itself limits the scope of patentable subject matter to “new and useful” inventions, 35 U.S.C. § 101, explicitly tying patentable subject matter to the presence of something new, *i.e.*, inventive.

Without the “overlap” this Court has recognized between the various requirements for patentability, this Court’s precedents limiting patent-eligible subject matter would be “a dead letter.” *Mayo*, 132 S. Ct. at 1303. If the addition of conventional, non-inventive limitations were sufficient to establish patent eligibility, patent applicants could easily evade Section 101’s limits on patentability in that manner. In *Mayo*, conventional administration of a drug would have sufficed, just as Alice argues that generic computer implementation suffices here. *Cf. id.* at 1303–04.

Moreover, the dispute over whether Congress intended inventiveness to be relevant only to Sections 102 and 103 is not a mere housekeeping matter concerning which section of the Patent Act to cite in the course of considering a patent’s validity. Without some consideration of inventiveness in the Section 101 analysis, the fundamental requirement that a claim contain something inventive apart from an abstract idea or natural law would be easily evaded under *all* provisions of the Patent Act by a divide-and-conquer strategy. A patent claim that generically recited implementation of an abstract idea with conventional computer equipment would survive Section 101 scrutiny because the computer equipment is not abstract. But the claim might also survive the novelty and non-obviousness requirements of Sections 102 and 103 on the ground

that the (patent-ineligible) abstract idea is novel. *See id.* at 1304 (“one would suppose that a newly discovered law of nature is novel”).

As *Mayo* explained, therefore, removing inventiveness from the Section 101 analysis on the theory that Section 102 and 103 address that question would erroneously “assum[e] that [Sections 102 and 103] can do work that they are not equipped to do.” *Id.* Under that approach, *Funk Brothers* and *Flook* would have been wrongly decided because there would be *no* requirement, under any of the statutory provisions, that a patent claim contain an inventive aspect other than an abstract idea or natural law. *Mayo* confirmed those cases were not wrongly decided. *Id.* at 1293–94.

2. The Category Of “Abstract Ideas” Is Not Vanishingly Narrow.

In another departure from this Court’s precedents, some Federal Circuit judges have held that only “manifestly” abstract ideas are unpatentable. *See, e.g.,* Pet.App. 146a (panel majority opinion); *Ultramercial*, 722 F.3d at 1354. This Court has long held that *all* abstract ideas are ineligible for patenting, not only “manifestly” abstract ideas. Indeed, any heightened burden runs the other way under *Mayo*: a patent claim must include “significantly more” than an abstract idea in order to give “practical assurance” that the claim is *not* ineligible for patenting. *Mayo*, 132 S. Ct. at 1294, 1297.

Alice would further limit the category of abstract ideas to “fundamental truths”; in Alice’s view, all other ideas (apparently including non-fundamental

truths) are not abstract and thus are eligible for patenting. Pet. Br. 19–29. Although Alice is not clear on exactly how to distinguish fundamental truths from other ideas, Alice appears to equate, or at least it comes very close to equating, a “fundamental truth” with a mathematical formula. *E.g.*, Pet. Br. 22 (referring to “[a] fundamental truth in the sense of a mathematical formula”).

That would deprive the “abstract ideas” doctrine of any effect. This Court has long held that there are “*three* specific exceptions” to patent eligibility: “laws of nature, physical phenomena, *and* abstract ideas.” *Bilski*, 130 S. Ct. at 3225 (emphasis added) (quoting *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980)). By equating abstract ideas with mathematical formulas, however, Alice appears to subsume all abstract ideas within natural laws, effectively eliminating the separate “abstract ideas” category. Eviscerating that category is not a reasonable way of defining it.²

Alice’s position is also irreconcilable with *Bilski*. As Justice Stevens observed, the *Bilski* claims involved far too much detail to be considered a “fundamental truth.” 130 S. Ct. at 3235 (Stevens, J., concurring in the judgment); *see also* p. 6, *supra*.

² Alice relies on this Court’s statement that “a principle is not patentable. 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.” *LeRoy v. Tatham*, 55 U.S. (14 How.) 156, 175 (1852). Nothing in that passage purported to provide a comprehensive definition of “abstract,” much less to limit the category of “abstract ideas” to fundamental truths.

But the Court unanimously held that all of the claims asserted in that case were impermissibly abstract, as discussed above. *See Bilski*, 130 S. Ct. at 3229–31.

Although it is difficult to formulate a one-size-fits-all definition of “abstract ideas,” experience has shown that identifying the abstract idea behind any purported application is generally straightforward. For example, in *Bilski*, the abstract idea was “hedging, or protecting against risk,” *id.* at 3231; in *Benson*, the “idea” was “converting [binary-coded decimal] numerals to pure binary numerals.” 409 U.S. at 71. The Federal Circuit has likewise identified the abstract concepts underlying numerous patent claims on a case-by-case basis.³ Generally speaking, computer implementation of activities such as engaging in financial transactions, supplying information, providing goods or services, playing a game, or communicating is an abstract

³ *See, e.g., Cyberfone Sys., LLC v. CNN Interactive Group, Inc.*, Nos. 2012-1673, -1674, slip op. at 7 (Fed. Cir. Feb. 26, 2013) (“categorical data storage”); *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012) (“‘the basic concept’ of processing information through a clearinghouse”); *Fort Props., Inc. v. Am. Master Lease LLC*, 671 F.3d 1317, 1322 (Fed. Cir. 2012) (“method of aggregating property, making it subject to an agreement, and then issuing ownership interests to multiple parties”); *Ultramercial*, 722 F.3d at 1349 (“idea that advertising can be used as a form of currency”); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) (method of credit card fraud detection); *In re Comiskey*, 554 F.3d 967, 981 (Fed. Cir. 2009) (method of “mandatory arbitration resolution”); *In re Schrader*, 22 F.3d 290, 291 (Fed. Cir. 1994) (method of bidding at an auction).

idea if the computer implementation is described only generally, without reciting a specific way of implementing the idea on a computer.

II. THE COURT SHOULD REJECT PROCEDURAL BARRIERS THE FEDERAL CIRCUIT RECENTLY ERECTED TO THE CONSIDERATION OF SECTION 101 DEFENSES.

In addition to confirming this Court's precedents on the substantive standard for patent eligibility, this Court should reject the Federal Circuit's recent imposition of two procedural roadblocks to a timely and fair resolution of patent eligibility. Some judges on that court have opined that adjudication of Section 101 issues should generally await formal claim construction and other proceedings, and that a defendant should have to prove patent-ineligibility by clear and convincing evidence. Those novel procedural barriers could render Section 101 largely toothless; indeed, some Federal Circuit judges have championed them (along with the "manifest" standard discussed above) for the express purpose of "cabin[ing]" the abstract-ideas doctrine. Pet.App. 68a (Rader, C.J. concurring-in-part and dissenting-in-part).

A. Patent Eligibility Can And Should Be Resolved At The Outset Of Most Cases.

The Federal Circuit recently instructed district courts that "it will be rare that a patent infringement suit can be dismissed at the pleading stage for lack of patentable subject matter." *Ultramercial*, 722 F.3d at 1338. The court stated that patent eligibility normally depends on findings of fact and interpretation of patent claims' meaning,

and that resolving Section 101 defenses on motions to dismiss would “not be a wise use of judicial resources.” *Id.* at 1340.

The “threshold” question of patent eligibility is, however, a question of law, not fact, for a court to decide. *See Mayo*, 132 S. Ct. at 1303; Pet.App. 7a; *id.* at 122a (Linn & O’Malley, JJ., dissenting). This Court has never treated any aspect of the patent eligibility analysis as factual or deferred to any findings of fact on that question.

As this case, *Association for Molecular Pathology*, *Mayo*, and this Court’s other Section 101 decisions show, a court should be able to determine from the face of a patent whether a claim recites patentable subject matter or instead, for example, generically describes the use of conventional computer equipment to implement an abstract idea. Even in a case with as complicated a background as *Association for Molecular Pathology*, this Court determined that patent claims ineligible under Section 101 without any discovery having been conducted. 133 S. Ct. at 2114–15; *see also id.* at 2120 (Scalia, J., concurring); *Ass’n for Molecular Pathology v. U.S. PTO*, 689 F.3d 1303, 1324 (Fed. Cir. 2012), *rev’d*, 133 S. Ct. 2107.

Nor does adjudication of Section 101 issues normally require claim construction (which itself is a question of law, *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996); *Lighting Ballast Control LLC v. Philips Elecs. N. Am. Corp.*, No. 2012-1014, slip op. at 7, 33 (Fed. Cir. Feb. 21, 2014)). One of the opinions below nonetheless stated that courts should generally await full claim construction before resolving Section 101 issues. Pet.App. 114a,

122a (Linn & O'Malley, JJ., dissenting). A panel subsequently reiterated that view in a binding, precedential decision. See *Ultramercial*, 722 F.3d at 1338.

Experience has shown, however, that formal claim construction is not needed to resolve Section 101 issues in most cases. See *In re Comiskey*, 554 F.3d 967, 973 (Fed. Cir. 2009). In many cases, like this one, the parties agree to use the patentee's proposed constructions for purposes of Section 101, e.g., *Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Can. (U.S.)*, 687 F.3d 1266, 1274 (Fed. Cir. 2012), or a court concludes that the result would be the same under either party's construction of the claims, *Compression Tech. Solutions LLC v. EMC Corp.*, No. 12-cv-1746, 2013 WL 2368039, at *3 (N.D. Cal. May 29, 2013); *SmartGene, Inc. v. Advanced Biological Labs., SA*, 852 F. Supp. 2d 42, 65–66 (D.D.C. 2012). A recent Federal Circuit opinion correctly noted that claim construction is not required where the patent holder “does not explain which terms require construction or how the analysis would change.” *Cyberfone Sys., LLC v. CNN Interactive Group, Inc.*, Nos. 2012-1673, -1674, slip op. at 7 n.1 (Fed. Cir. Feb. 26, 2013). Likewise, a number of district courts have declined to defer Section 101 motions until after formal claim construction precisely because nothing would be gained from doing so. E.g., *OIP Techs., Inc. v. Amazon.com, Inc.*, No. 12-cv-1233, 2012 WL 3985118, at *5 (N.D. Cal. Sept. 11, 2012); *Digitech Info. Sys., Inc. v. BMW Fin. Servs. NA, LLC*, 864 F. Supp. 2d 1289, 1293 (M.D. Fla. 2012).

Similarly, formal claim construction is not needed if a party's position is unreasonable or can be

efficiently resolved without further proceedings. *See* Pet.App. 209a, 223a (district court opinion); *Sinclair-Allison, Inc. v. Fifth Ave. Physician Servs., LLC*, No. 12-cv-360, 2012 WL 6629561, at *3 (W.D. Okla. Dec. 19, 2012). Many courts defer claim construction until after the completion of a long and expensive discovery process, and then address all of the parties' claim-construction disputes—most or all of which are ordinarily relevant only to other issues in the case, not to Section 101. There is no legitimate reason to put the parties to that expense, and a district judge to that burden, when a party's claim construction is not even reasonable or could be resolved in a straightforward manner without full-blown proceedings on all of the other claim-construction disputes in a case.

The increasing number of district court decisions granting Section 101 motions without engaging in formal claim construction in recent years is telling.⁴

⁴ *E.g.*, *Lumen View Tech. LLC v. Findthebest.com, Inc.*, __ F. Supp. 2d __, 2013 WL 6164341, at *15 & n.7 (S.D.N.Y. Nov. 22, 2013); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, Nos. 12-2501, -6960, 2013 WL 3964909, at *5 (D.N.J. July 31, 2013); *Compression Tech. Solutions*, 2013 WL 2368039, at *3; *Cardpool, Inc. v. Plastic Jungle, Inc.*, No. 12-4182, 2013 WL 245026, at *4 (N.D. Cal. Jan. 22, 2013); *Sinclair-Allison*, 2012 WL 6629561, at *3; *Graff/Ross Holdings LLP v. Fed. Home Loan Mortg. Corp.*, 892 F. Supp. 2d 190 (D.D.C. 2012); *OIP Techs.*, 2012 WL 3985118, at *5; *CyberFone Sys. LLC v. Cellco P'Ship*, 885 F. Supp. 2d 710, 715, 719 n.8 (D. Del. 2012), *aff'd*, Nos. 2012-1673, -1674; *Digitech Info. Sys.*, 864 F. Supp. 2d at 1292–93; *SmartGene*, 852 F. Supp. 2d at 65–66; *CyberSource Corp. v. Retail Decisions, Inc.*, 620 F. Supp. 2d 1068, 1073 (N.D. Cal. 2009), *aff'd*, 654 F.3d 1366.

As these cases demonstrate, the correct approach is *not* to engage in formal claim construction before resolving Section 101 motions unless the non-movant (usually the patentee, but perhaps a defendant responding to a patentee's motion for summary judgment) articulates a reasonable reading of the claims that requires further proceedings to resolve and would change the result. Indeed, deferring Section 101 issues until a court has resolved all claim construction disputes in a case is difficult to square with the Federal Circuit's admonition that courts should *avoid* unnecessary claim construction rulings because such a ruling might amount to an "impermissible advisory opinion." *Superior Indus. v. Masaba*, No. 13-1302, 2014 WL 163046, at *4 (Fed. Cir. Jan. 16, 2014).

At a minimum, district courts should not be *discouraged* from resolving Section 101 defenses expeditiously. District courts have considerable discretion to manage the cases before them in an efficient manner. *See, e.g.*, Fed. R. Civ. P. 16. Deferring Section 101 rulings would sanction litigation abuse by unnecessarily subjecting defendants to lengthy, expensive discovery related to infringement, invalidity, enforceability, damages, entitlement to equitable relief, and other issues in a case. It could also prolong litigation of Section 101 issues through not only claim construction, but also the summary judgment stage and potentially a trial. *Cf. Ass'n for Molecular Pathology v. U.S. PTO*, 653 F.3d 1329, 1379–80 (Fed. Cir. 2011) (Bryson, J., concurring in part and dissenting in part), *vacated*, 132 S.Ct. 1794 (2012).

That is important because, as discussed below, much of the harm from low-quality computer-related patents takes the form of litigation expenses and settlements. *See* pp. 32–34, *infra*. Many companies already pay substantial sums to settle meritless cases because their litigation expenses would exceed the plaintiff's settlement demand. *See, e.g.*, Brian J. Love, *Why Patentable Subject Matter Matters for Software*, 81 Geo. Wash. L. Rev. Arguendo 1, 9–10 (2012), http://www.gwlr.org/wp-content/uploads/2012/09/Love_Arguendo_81_1.pdf. Discovery costs alone have become a powerful incentive for some patent plaintiffs to file strike suits for quick settlements. *See Eon-Net LP v. Flagstar Bancorp*, 653 F.3d 1314, 1327 (Fed. Cir. 2011). Delay in resolving Section 101 defenses would increase the nuisance value of settlement, deter product development, and unnecessarily burden the district courts.

B. There Is No Valid Reason To Apply A Heightened Burden Of Proof On This Legal Question.

Alice contends that CLS Bank should have to prove patent ineligibility by “clear and convincing evidence.” Pet. Br. 43. Some of the Federal Circuit judges below agreed. Pet.App. 68a (Rader, C.J., concurring-in-part and dissenting-in-part). That impediment to Section 101 defenses is as unwarranted as the “manifestly” abstract standard discussed above. This Court has never imposed a clear-and-convincing-evidence burden on Section 101 defenses for the simple reason that this is a question of *law*, not fact. *See* p. 19, *supra*.

The clear-and-convincing-evidence standard is a “standard of proof [that] applies to questions of fact and not to questions of law.” *Microsoft Corp. v. i4i Ltd. P’ship*, 131 S. Ct. 2238, 2253 (2011) (Breyer, J., concurring). Standards of proof “instruct the *factfinder* concerning the degree of confidence our society thinks he should have in the correctness of *factual* conclusions for a particular type of adjudication.” *Addington v. Texas*, 441 U.S. 418, 423 (1979) (emphases added) (quoting *In re Winship*, 397 U.S. 358, 370 (1970) (Harlan, J., concurring)). As its name suggests, therefore, “a standard of proof [does not apply] to a purely legal question.” *Branson Sch. Dist. RE-82 v. Romer*, 161 F.3d 619, 636 n.15 (10th Cir. 1998). The Federal Circuit itself has found it “inappropriate to speak in terms of a particular standard of proof being necessary to reach a legal conclusion.” *SSIH Equip. S.A. v. U.S. ITC*, 718 F.2d 365, 375 (Fed. Cir. 1983); *see also Newell Cos., Inc. v. Kenney Mfg. Co.*, 864 F.2d 757, 767 (Fed. Cir. 1988).

Allowing evidentiary standards to infect the analysis of legal questions would skew outcomes in ways detrimental to innovation. Invalid patents “stifle, rather than promote, the progress of useful arts” by blocking or taxing innovation. *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 427 (2007); *accord Lear, Inc. v. Adkins*, 395 U.S. 653, 656 (1969). Thus, the public “has a ‘paramount interest in seeing that patent monopolies are kept within their legitimate scope,’” as further explained below. *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843, 851 (2014) (quoting *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 816 (1945)); *see also* pp. 29–32, *infra*. Thus, “[b]y preventing the

‘clear and convincing’ standard from roaming outside its fact-related reservation, courts can increase the likelihood that [alleged] discoveries or inventions will not receive legal protection where none is due.” *i4i*, 131 S. Ct. at 2253 (Breyer, J., concurring). There is no valid reason to force accused infringers to fight an uphill battle on legal issues under a clear-and-convincing-evidence standard.

III. A PLAGUE OF ABSTRACT COMPUTER-RELATED PATENTS IS IMPAIRING AND TAXING INNOVATION IN THE HIGH-TECH SECTOR.

Fair and timely enforcement of the limits on patentable subject matter is especially important for computer-related inventions, and those inventions in turn are especially important to our computer-age economy.

1. As *amici* and other innovators recognize, it is easy to think of abstract ideas about what a computing system, device, or Internet website might do. The difficult, valuable, and often groundbreaking part comes next: designing, analyzing, building, and deploying the interface, software, and hardware to implement that idea in a way that is useful in daily life. And for any given idea (such as financial intermediation), different innovators could develop different applications by, for example, using different programming techniques or algorithms to implement the idea in different, perhaps more efficient, ways. Ronald J. Mann, *Do Patents Facilitate Financing in the Software Industry?*, 83 Tex. L. Rev. 961, 978 n.95 (2005); accord Peter T. Luce, *Hiding Behind Borders in a Borderless World: Extraterritoriality Doctrine and the Inadequacy of*

U.S. Software Patent Protections in a Networked Economy, 10 Tul. J. Tech. & Intell. Prop. 259, 277–78 (2007).

The asserted patent claims, however, would foreclose that very innovation by broadly claiming an idea when done on a computer or over the Internet. Unfortunately, these claims are typical. Many software patents simply claim a result (such as financial intermediation) by reference to a computer or the Internet. Kevin E. Collins, *Patent Law’s Functionality Malfunction and the Problem of Overbroad, Functional Software Patents*, 90 Wash. L. Rev. 1399, 1440–43 (2013). Because “all computers have standard elements” and can run software programs, claims like Alice’s that only generically recite computer implementation of an idea “take abstraction in patent claiming to an extreme.” Mark A. Lemley, *Software Patents and the Return of Functional Claiming*, 2013 Wisc. L. Rev. 905, 919. Because such claims do not disclose or limit themselves to a particular way of implementing the idea, they “claim everything and contribute nothing.” Mark A. Lemley *et al.*, *Life After Bilski*, 63 Stan. L. Rev. 1315, 1338 (2011).

Such claims are inimical to the fundamental bargain underlying the patent system. Those who disclose their inventions are entitled to exclusive rights commensurate with, but no broader than, their disclosures. *J.E.M.*, 534 U.S. at 142. “By requiring that patent claims be limited to a specific set of practical applications of an idea, the abstract ideas doctrine . . . leaves room for subsequent inventors to improve upon—and patent new applications of—the same basic principle.” Lemley,

63 Stan. L. Rev. at 1317. The patent system thereby encourages inventors “to ‘design around’ a competitor’s products” by developing new and potentially better ways of achieving the same result (such as financial intermediation on a computer). *TiVo Inc. v. EchoStar Corp.*, 646 F.3d 869, 883 (Fed. Cir. 2011) (quoting *State Indus., Inc. v. A.O. Smith Corp.*, 751 F.2d 1226, 1236 (Fed. Cir. 1985)).

In short, Section 101 in particular, and the Patent Act in general, stimulate innovation by “not granting monopolies over procedures that others would discover by independent, creative application of general principles.” *Bilski*, 130 S. Ct. at 3228. Claims like these that merely recite a familiar idea when done on a computing system or over the Internet, without more, are ineligible for patenting because they would add little if anything to human knowledge while broadly foreclosing future development by others.⁵

⁵ In this respect, Section 101’s prohibition on abstract claims overlaps with the longstanding prohibition on purely functional claims. As the plurality repeatedly noted, the asserted claims are “functional” because they recite, for example, a computer “configured to” perform financial intermediation, but do not disclose or limit themselves to a specific way of configuring a computer to perform that task. *E.g.*, Pet.App. 29a–30a, 34a. Claims that cover “the result or function of a machine,” instead of a specific way to accomplish that result, are invalid because they would “extend the monopoly beyond the invention,” *i.e.*, beyond the specific way (if any) the patent applicant invented for achieving the result. *Holland Furniture Co. v. Perkins Glue Co.*, 277 U.S. 245, 257, 258 (1928); accord *Halliburton Oil Well Cementing Co. v. Walker*, 329 U.S. 1, 9 (1946); *General Elec. Co. v. Wabash Appliance Corp.*, 304 U.S. 364, 371 (1938).

2. Although some have suggested that invalidating such patents would “swallow . . . much of the investment and innovation in software,” Pet.App. 76a (Rader, C.J., concurring-in-part and dissenting-in-part), history proves otherwise. The computer industry grew rapidly without reliance on abstract software patents. Such patents became commonplace only after the Federal Circuit changed the rules to sanction them in a series of decisions that began in the late 1980s and culminated in *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994) (en banc). That new jurisprudence led to an explosion in such patents—and litigation over them. See James Bessen, *A Generation of Software Patents* at 12, 22 (Aug. 2011), http://works.bepress.com/cgi/viewcontent.cgi?article=1000&context=james_bessen (“*Software Patents*”).

Until then, however, software industry leaders had not even believed that such patents were valid, let alone relied on them. As early as 1991, Microsoft founder and CEO Bill Gates noted that, “[i]f people had understood how patents would be granted when most of today’s ideas were invented, and had taken out patents, the industry would be at a complete standstill today.” Memorandum from Bill Gates, *Challenges and Strategy* at 5 (May 16, 1991), available at <http://antitrust.slated.org/www.iowaconsumentcase.org/011607/0000/PX00738.pdf>. In public hearings, Adobe and Oracle likewise confirmed that they had built their successful businesses “believ[ing] that there was no possibility of patenting our work.” Testimony of Douglas Brotz, Adobe Systems, Inc., PTO Hearing (Jan. 26, 1994), available at <http://www.uspto.gov/web/offices/com/>

hearings/software/sanjose/sj_brotz.html; Testimony of Jerry Baker, Oracle Corp., PTO Hearing (Jan. 26, 1994), *available at* http://www.uspto.gov/web/offices/com/hearings/software/sanjose/sj_baker.html. That did not stop Adobe “from creating that software, nor did it deter the savvy venture capitalists who helped us with the early investment.” Brotz Testimony, *supra*.

As those examples illustrate, success in computer-related industries has never depended on overbroad, abstract patents. It has depended on developing innovative products and services—*i.e.*, specific *applications* of abstract ideas. That is the very innovation that such patents would block.

3. The exponential growth of software patents poses a serious threat to computer-related industries. In 1980, roughly 2,000 software patents were issued per year. *Software Patents, supra*, at 28 fig. 1. By 1996, two years after *Alappat*, the Patent and Trademark Office was issuing over 10,000 software patents a year as applicants sought to take advantage of the new Federal Circuit jurisprudence. *Id.* By 2009, that number had quadrupled to 40,000 new software patents annually. *Id.* By last year, approximately 400,000 total software patents were in effect, a number that continues to grow. See Brian J. Love, *No: Software Patents Don’t Spur Innovation, but Impede It*, Wall Street J. (May 13, 2013) *available at* <http://ssrn.com/abstract=2278972> (“Love, *Software Patents*”).

The owners of software patents have not been shy about asserting them. Such patents are litigated eight times as often as other patents, and have accounted for about 46 percent of all patent lawsuits

and 64 percent of the defendants in those suits between 2007 and 2011. John R. Allison *et al.*, *Patent Litigation and the Internet*, 2012 Stan. Tech. L. Rev. 3 ¶ 39, <http://stlr.stanford.edu/pdf/allison-patent-litigation.pdf>; Gov't Accountability Office, *Intellectual Property: Assessing Factors that Affect Patent Infringement Litigation Could Help Improve Patent Quality* at 21 (Aug. 2013), <http://www.gao.gov/assets/660/657103.pdf>.

Thus, abstract software patents are not a minor annoyance; they are very real and growing plague. Weak policing of Section 101 is a significant cause of this problem: “Why are software patents more frequently litigated? In a word, abstraction.” James Bessen & Michael J. Meurer, *Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovators at Risk*, at 22 (2008) (“Patent Failure”).

The sheer volume of such innovation-blocking patents creates a “patent thicket” that “generate[s] larger administrative costs as acquiring the patent rights needed to undertake a research agenda or manufacture a product becomes, at best, more costly and, at worst, not feasible.” Collins, 90 Wash. L. Rev. at 1411–12. As a White House report recently explained, moreover, innovators often “find themselves inadvertently infringing patents, both because of the sheer number of patents and because commercial need is driving many inventors to create similar inventions near-simultaneously.” The White House, *Patent Assertion and U.S. Innovation*, at 7 (June 2013), http://www.whitehouse.gov/sites/default/files/docs/patent_report.pdf (“White House Report”).

Avoiding infringement of these broad patents by designing around them during product development, or negotiating a reasonable license before design decisions are finalized, is often infeasible due to a “notice failure”: because abstract software claims are “notoriously difficult to interpret,” and there are so many of them, “innovative firms are targeted in patent infringement suits through no fault of their own.” James Besson & Michael Meurer, *The Direct Costs from NPE Disputes*, at 8 (forthcoming Cornell L. Rev. 2014), <http://ssrn.com/abstract=2091210> (“*Direct Costs*”). “Especially for business methods and software, the patent system provides innovators who might be targeted with a patent suit with little information about the existence, ownership, or scope of relevant patent rights.” *Id.* at 35.

Moreover, the fast pace of innovation leads to “the danger that new products will inadvertently infringe on patents issued *after* these products were designed.” See Carl Shapiro, *Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard Setting*, 1 Innovation Pol’y & Econ. 119, 119 (2000) (emphasis added). The industry is outpacing the patent system, meaning technology is developing at a faster pace than patents are granted. As patent applications pile up, innovators risk infringing any number of them just to keep up with the pace of technological development. Love, *Software Patents*, *supra*.

This danger is only heightened by the increasing prevalence of computer equipment and software in our increasingly technological society. Many devices used in daily life, from cellular phones to automobiles, include computer hardware and

software. Allowing patents for abstract ideas simply because the ideas would be implemented through such equipment would stifle innovation in a broad (and growing) swath of the modern economy.

Software patents are similar to business-method patents in these respects; indeed, Alice’s patent is a business-method patent. This Court has recognized that such patents “raise special problems in terms of vagueness and suspect validity,” and that without a “high enough bar,” “patent examiners and courts could be flooded with claims that would put a chill on creative endeavor and dynamic change.” *Bilski*, 130 S. Ct. at 3229. Indeed, the number of companies facing such claims has grown on average 28% per year since 2004, with especially high growth beginning in 2010. See Patent Freedom, *The Growing Use of Business Method Patents in NPE Litigation* (Sept. 4, 2013), <http://www.patentfreedom.com/about-npes/blog/the-growing-use-of-business-method-patents-in-npe-litigation>; Patent Freedom, *Investigations into NPE Litigation Involving Business Method Patents* (Sept. 4, 2013), https://www.patentfreedom.com/wp-content/uploads/2013/09/NPE-Ligitations-involving-Business-Method-Patents_Sept-4-2013.pdf.

4. The high costs of patent litigation compound the problem. When faced with claims on low-quality software patents, innovators face a choice of gambling on litigation or paying license fees for technology they already paid once to develop independently. Either path imposes significant costs that effectively tax innovation. Patent suits are extraordinarily expensive to litigate and subject to material uncertainty. Dep’t of Commerce, *Patent*

Reform: Unleashing Innovation, Promoting Economic Growth & Producing High-Paying Jobs, at 5–6 (Apr. 13, 2010), http://www.commerce.gov/sites/default/files/documents/migrated/Patent_Reform-paper.pdf (“DOC Report”). But if a company decides to negotiate a license to avoid the risk and cost of litigation, the patentee can use the innovator’s already-incurred development costs, and the additional costs that would be required to change to a different technology, “as negotiating leverage for a higher royalty than the patented technology could have commanded *ex ante*.” Fed. Trade Comm’n, *The Evolving IP Marketplace*, at 8 (Mar. 2011), <http://www.ftc.gov/os/2011/03/110307patentreport.pdf> (“FTC Report”).

The real-world consequences of this system are serious. One study found that patents in these industries have produced net litigation costs far in excess of the net profits derived from the patents themselves. Patent Failure, *supra*, at 15–16, 144; *see also* DOC Report, *supra*, at 5.

The Federal Circuit’s willingness to credit such patent claims plays into the hands of patent-assertion entities (“PAEs”). As the Federal Trade Commission found, PAEs obtain “overbroad, vague claims” they might assert against a broad range of activity, wait for others to do the hard work of developing applications—and then sue the real innovators. *See* FTC Report, *supra*, at 8–9, 50–51, 60–61. One study found that PAE suits were associated with “*half a trillion dollars* of lost wealth to defendants from 1990 through 2010” (or roughly \$25 billion per year). James Bessen *et al.*, *Private and Social Costs of Patent Trolls*, 34 Regulation 26,

26 (2011), <http://www.cato.org/pubs/regulation/regv34n4/v34n4-1.pdf> (emphasis added). That trend has only continued since then; the most recent study estimated that the direct costs of PAE suits in 2011 totaled \$29 billion. *Direct Costs, supra*, at 3.

Lawsuits brought by PAEs have quadrupled since 2005 and now account for a majority of patent litigation. See RPX Corp., *NPEs Have Broader Impact Than GAO Headlines Suggest* (Sept. 9, 2013), <http://www.rpxcorp.com/rpx-blog?month=9%2F1%2F2013>; RPX Corp., *Tracking PAE Activity* (Jan. 23, 2013), <http://www.rpxcorp.com/rpx-blog?month=1%2F1%2F2013>. The vast majority of these cases—about 82%—involve software and internet patents. See Colleen Chien & Aashish Karkhanis, *Software Patents & Functional Claiming* 6 (Feb. 12, 2013), http://www.uspto.gov/patents/init_events/software_ak_cc_sw.pdf.

One study estimated, based on litigated patents, that 100% of PAE software patents and 50% of non-PAE software patents use abstract, functional claiming. *Id.* at 40. As the White House recently explained, therefore, “broad, functionally-defined . . . patents are . . . a key part of the PAE business model.” White House Report, *supra*, at 8.

An important step toward fighting patent abuse is “rigorous implementation” of this Court’s decisions “restricting the patentability of business methods and other abstract processes.” *Direct Costs, supra*, at 40. The Court should instruct the Federal Circuit that, because this Court’s Section 101 precedents mean what they say, computer-related patents do not deserve a free pass from Section 101’s important screening function.

CONCLUSION

For the foregoing reasons, the judgment of the court of appeals should be affirmed.

Respectfully submitted.

DARYL L. JOSEFFER

Counsel of Record

KAREN F. GROHMAN

KING & SPALDING LLP

1700 Pennsylvania Ave. NW

Washington, DC 20006

(202) 737-0500

djoseffer@kslaw.com

ADAM M. CONRAD

KING & SPALDING LLP

100 N. Tryon St., Suite 3900

Charlotte, NC 28202

(704) 503-2600

Counsel for Amici Curiae

February 27, 2014

BLANK PAGE