



**CLS BANK INTERNATIONAL, Plaintiff-Appellee, AND CLS SERVICES LTD.,  
Counterclaim Defendant-Appellee, v. ALICE CORPORATION PTY. LTD., De-  
fendant-Appellant.**

2011-1301

**UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT**

*2013 U.S. App. LEXIS 9493; 106 U.S.P.Q.2D (BNA) 1696*

**May 10, 2013, Decided**

**PRIOR HISTORY:** [\*1]

Appeal from the United States District Court for the District of Columbia in No. 07-CV-974, Judge Rosemary M. Collyer.

*CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 768 F. Supp. 2d 221, 2011 U.S. Dist. LEXIS 23669 (D.D.C., 2011)

*CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 484 Fed. Appx. 559, 2012 U.S. App. LEXIS 20906 (Fed. Cir., 2012)

**DISPOSITION:** AFFIRMED.

**COUNSEL:** MARK A. PERRY, Gibson, Dunn & Crutcher LLP, of Washington, DC, argued for plaintiff-appellee and counterclaim-defendant appellee on rehearing en banc. With him on the brief were BRIAN M. BUROKER, MICHAEL F. MURRAY and ALEXANDER N. HARRIS. Of counsel on the brief was MICHAEL A. VALEK, of Dallas, Texas.

ADAM L. PERLMAN, Williams & Connolly, LLP, of Washington, DC, argued for defendant-appellant on rehearing en banc. With him on the brief were BRUCE R. GENDERSON, RYAN T. SCARBOROUGH, STANLEY E. FISHER and DAVID M. KRINSKY. Of counsel on the brief were CONSTANTINE L. TRELA, JR., Sidley Austin, LLP, of Chicago, Illinois and ROBERT E. SOKOHL, Sterne, Kessler, Goldstein & Fox, PLLC, of Washington, DC.

NATHAN K. KELLEY, Deputy Solicitor, Office of the Solicitor, United States Patent and Trademark Office, of Alexandria, Virginia, argued for United States Patent and Trademark Office, for amicus curiae on rehearing en banc. With him on the brief were BERNARD J. KNIGHT, JR., General Counsel, RAYMOND T. CHEN, Solicitor, SCOTT C. WEIDENFELLER, Senior Counsel

for Patent Law, [\*2] and THOMAS E. KRAUSE, Special Counsel for IP Litigation. Of counsel on the brief were BETH S. BRINKMANN, Deputy Assistant Attorney General, SCOTT R. MCINTOSH and MARK R. FREEMAN, Attorneys, Appellate Staff, Civil Division, United States Department of Justice, of Washington, DC.

STEPHEN R. STITES, Bluemont, Virginia, as amicus curiae on rehearing en banc.

JACK E. HAKEN, Philips Intellectual Property and Standards, of Briarcliff Manor, New York, for amicus curiae, Koninklijke Philips Electronics NV on rehearing en banc. With him on the brief were MICHAEL FUERCH, PAUL IM, and DAVID SCHREIBER.

PAUL R. JUHASZ, The Juhasz Law Firm, P.C., of Houston, Texas, for amicus curiae The Juhasz Law Firm, P.C., on rehearing en banc.

CHARLES W. SHIFLEY, Banner & Witcoff, LTD., of Chicago, Illinois, for amicus curiae The Intellectual Property Law Association of Chicago on rehearing en banc.

MICHAEL R. DZWONCZYK, Sughrue Mion, PLLC, of Washington, DC, for amicus curiae Sigram Schindler Beteiligungsgesellschaft mbH on rehearing en banc.

JULIE P. SAMUELS, Electronic Frontier Foundation, of San Francisco, California, for amici curiae Electronic Frontier Foundation, et al. on rehearing en banc. With her on the [\*3] brief was MICHAEL BARCLAY.

CHARLES R. MACEDO, Amster, Rothstein & Ebenstein LLP, of New York, New York, for amicus

**VERSATA EXHIBIT 2104**

curiae New York Intellectual Property Law Association on rehearing en banc. With him on the brief was MICHAEL J. KASDAN. Of counsel on the brief was ANTHONY F. LO CICERO, New York Intellectual Property Law Association, of Fort Lee, New Jersey.

JOHN D. VANDENBERG, Klarquist Sparkman, LLP, of Portland, Oregon, for amicus curiae British Airways, PLC, et al. on rehearing en banc.

MATTHEW SCHRUERS, Computer & Communications Industry Association, (CCIA) for amicus curiae Computer & Communications Industry Association on rehearing en banc.

DARYL JOSEFFER, King & Spalding LLP, of Washington, DC, for amici curiae Google Inc., et al. on rehearing en banc. With him on the brief was ADAM CONRAD, of Charlotte, North Carolina.

GEORGE L. GRAFF, of Briarcliff Manor, New York, for amicus curiae Intellectual Property Owners Association on rehearing en banc. With him on the brief were RICHARD F. PHILLIPS, ExxonMobil Chemical Company, of Houston, Texas and KEVIN H. RHODES, 3M Innovative Properties Company, of St. Paul Minnesota.

STEVEN C. SEREBOFF, SoCal IP Law Group LLP, of Westlake Village, California, [\*4] for amicus curiae Conejo Valley Bar Association on rehearing en banc. With him on the brief were MARK A. GOLDSTEIN, JONATHAN PEARCE and M. KALA SARVAIYA.

PAUL D. CLEMENT, Bancroft PLLC, of Washington, DC, for amicus curiae International Business Machines Corporation on rehearing en banc. With him on the brief was D. ZACHARY HUDSON. Of counsel on the brief were MANNY W. SCHECTER and KENNETH R. CORSELLO, IBM Corporation, of Armonk, New York.

ANDREW J. PINCUS, Mayer Brown LLP, of Washington, DC, for amicus curiae BSA, et al. on rehearing en banc. With him on the brief was PAUL W. HUGHES.

SUSAN M. DAVIES, Kirkland & Ellis LLP, of Washington, DC, for amici curiae The Clearing House Association L.L.C., et al. on rehearing en banc. With her on the brief was LIAM P. HARDY.

PETER K. TRZYNA, Attorney at Law, of Chicago, Illinois, for amici curiae Professor Lee Hollaar, et al. on rehearing en banc.

PETER J. BRANN, Brann & Isaacson, of Lewiston, Maine, for amici curiae Internet Retailers on rehearing en

banc. With him on the brief were DAVID SWETNAM-BURLAND and STACY O. STITHAM.

ROBERT P. GREENSPOON, Flachsbart & Greenspoon, LLC, of Chicago, Illinois, for amici curiae Telecommunication Systems, Inc., [\*5] et al. on rehearing en banc.

JERRY R. SELINGER, Patterson & Sheridan, LLP, of Dallas, Texas, for amicus curiae American Intellectual Property Law Association on rehearing en banc. With him on the brief was GERO MCCLELLAN. Of counsel on the brief was JEFFREY I.D. LEWIS, American Intellectual Property Law Association, of Arlington, Virginia.

DAVID E. BOUNDY, Cantor Fitzgerald, L.P., of New York, New York, for amici curiae, BGC Partners, Inc., et al. on rehearing en banc. With him on the brief was GARY A. ROSEN, Law Offices of Gary A. Rosen, P.C., of Ardmore, Pennsylvania.

CHARLES K. VERHOEVEN, Quinn Emanuel Urquhart & Sullivan, of San Francisco, California, for amicus curiae Bancorp Services, LLC, on rehearing en banc. With him on the brief was DAVID A. PERLSON. Of counsel on the brief was IAN S. SHELTON, of Los Angeles, California.

DALE R. COOK, ICT Law & Technology LLC, of Seattle, Washington, for amicus curiae Dale R. Cook on rehearing en banc. With him on the brief was STEVEN F. BORSAND, Trading Technologies International, Inc., of Chicago, Illinois.

ANN M. MCCRACKIN, of Minneapolis, Minnesota, for amicus curiae University of New Hampshire School of Law Intellectual Property Clinic on [\*6] rehearing en banc. With her on the brief was J. JEFFREY HAWLEY, University of New Hampshire, of Concord, New Hampshire.

**JUDGES:** Before RADER, Chief Judge, NEWMAN, LOURIE, LINN, DYK, PROST, MOORE, O'MALLEY, REYNA, and WALLACH, Circuit Judges.\* Concurring opinion filed by LOURIE, Circuit Judge, in which DYK, PROST, REYNA, and WALLACH, Circuit Judges, join. Concurring-in-part and dissenting-in-part opinion filed by RADER, Chief Judge, LINN, MOORE, and O'MALLEY, Circuit Judges, as to all but part VI of that opinion. RADER, Chief Judge, and MOORE, Circuit Judge, as to part VI of that opinion. Dissenting-in-part opinion filed by MOORE, Circuit Judge, in which RADER, Chief Judge, and LINN and O'MALLEY, Circuit Judges, join. Concurring-in-part and dissenting-in-part opinion filed by NEWMAN, Circuit Judge. Dissenting opinion filed by LINN and O'MALLEY,

Circuit Judges. Additional reflections filed by RADER, Chief Judge.

\* Circuit Judge Taranto did not participate in this decision.

## OPINION

Opinion for the court filed PER CURIAM.

PER CURIAM.

Upon consideration en banc, a majority of the court affirms the district court's holding that the asserted method and computer-readable media claims are not directed to eligible [\*7] subject matter under 35 U.S.C. § 101. An equally divided court affirms the district court's holding that the asserted system claims are not directed to eligible subject matter under that statute.

## AFFIRMED

**CONCUR BY:** LOURIE; NEWMAN (In Part)

## CONCUR

LOURIE, *Circuit Judge*, concurring, with whom *Circuit Judges* DYK, PROST, REYNA, and WALLACH join.

Alice Corporation ("Alice") appeals from the grant of summary judgment in favor of declaratory judgment plaintiffs CLS Bank International and CLS Services, Ltd. (collectively, "CLS") by the United States District Court for the District of Columbia holding that certain claims of Alice's *U.S. Patents* 5,970,479 (the "'479 patent"), 6,912,510 (the "'510 patent"), 7,149,720 (the "'720 patent"), and 7,725,375 (the "'375 patent") are invalid under 35 U.S.C. § 101. *CLS Bank Int'l v. Alice Corp.*, 768 F. Supp. 2d 221 (D.D.C. 2011). On July 9, 2012, a panel of this court reversed, holding that the claims at issue, including claims drawn to methods, computer-readable media, and systems, were all patent eligible under § 101. *CLS Bank Int'l v. Alice Corp.*, 685 F.3d 1341 (Fed. Cir. 2012), vacated, 484 F. App'x 559 (Fed. Cir. 2012). CLS filed a petition for rehearing en banc, which [\*8] was granted on October 9, 2012. *CLS Bank Int'l v. Alice Corp.*, 484 F. App'x 559 (Fed. Cir. 2012).

As described more fully below, we would affirm the district court's judgment in its entirety and hold that the method, computer-readable medium, and corresponding system claims before us recite patent-ineligible subject matter under 35 U.S.C. § 101.<sup>1</sup>

1 While Chief Judge Rader is correct to note that no single opinion issued today commands a majority, seven of the ten members, a majority, of this en banc court have agreed that the method and computer-readable medium claims before us

fail to recite patent-eligible subject matter. In addition, eight judges, a majority, have concluded that the particular method, medium, and system claims at issue in this case should rise or fall together in the § 101 analysis.

## BACKGROUND

### I. Alice's Patents

Alice, an Australian company, owns the '479, '510, '720, and '375 patents by assignment. The patents, which all derive from the same family and share substantially the same specification, concern "the management of risk relating to specified, yet unknown, future events." '479 patent col. 1, ll. 8-10. In particular, the patents relate to a computerized trading [\*9] platform used for conducting financial transactions in which a third party settles obligations between a first and a second party so as to eliminate "counterparty" or "settlement" risk. *CLS Bank*, 768 F. Supp. 2d at 224. Settlement risk refers to the risk to each party in an exchange that only one of the two parties will actually pay its obligation, leaving the paying party without its principal or the benefit of the counterparty's performance. Alice's patents address that risk by relying on a trusted third party to ensure the exchange of either both parties' obligations or neither obligation. *Id.*

For example, when two parties agree to perform a trade, in certain contexts there may be a delay between the time that the parties enter a contractual agreement obligating themselves to the trade and the time of settlement when the agreed trade is actually executed. Ordinarily, the parties would consummate the trade by paying or exchanging their mutual obligations after the intervening period, but in some cases one party might become unable to pay during that time and fail to notify the other before settlement. *Id.* As disclosed in Alice's patents, a trusted third party can be used to verify [\*10] each party's ability to perform before actually exchanging either of the parties' agreed-upon obligations. *Id.*; see also '479 patent col. 5 ll. 61-63 ("The invention also encompasses apparatus and method dealing with the handling of contracts at maturity, and specifically the transfer of entitlement.").

The claims currently before the court include claims 33 and 34 of the '479 patent and all claims of the '510, '720, and '375 patents. The relevant claims of the '479 and '510 patents recite methods of exchanging obligations between parties, the claims of the '720 patent are drawn to data processing systems, and the claims of the '375 patents claim data processing systems as well as computer-readable media containing a program code for directing an exchange of obligations.

### II. District Court Proceedings

On May 24, 2007, CLS filed suit against Alice seeking a declaratory judgment of noninfringement, invalidity, and unenforceability as to the '479, '510, and '720 patents. Alice answered and counterclaimed, alleging infringement. By the agreement of the parties, the district court allowed limited initial discovery, addressing only the questions of (i) the operations of CLS, and (ii) CLS's [\*11] relationship with the accused CLS system. *CLS Bank Int'l v. Alice Corp.*, No. 07-cv-00974 (D.D.C. Feb. 21, 2008), ECF No. 24 (Scheduling Order).

In March 2009, following limited discovery, CLS moved for summary judgment on the bases that any possible infringement could not be said to have occurred in the United States and that Alice's asserted claims were drawn to ineligible subject matter and therefore invalid under 35 U.S.C. § 101. Alice filed cross-motions on both issues. The district court denied CLS's motion as to extraterritoriality on October 13, 2009, finding that CLS's alleged infringing acts fell within the reach of domestic patent law. *CLS Bank Int'l v. Alice Corp.*, 667 F. Supp. 2d 29, 33-38 (D.D.C. 2009). Regarding subject-matter eligibility under § 101, the district court summarily denied the parties' motions on June 16, 2009, without prejudice to refile, after the Supreme Court granted certiorari to review our decision in *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008) (en banc), cert. granted sub. nom. *Bilski v. Doll*, 556 U.S. 1268, 129 S. Ct. 2735, 174 L. Ed. 2d 246 (2009).

In the meantime, the '375 patent issued, and Alice filed amended counterclaims additionally asserting that CLS infringed each claim [\*12] of the '375 patent. After the Supreme Court issued its decision in *Bilski v. Kappos*, 130 S. Ct. 3218, 177 L. Ed. 2d 792 (2010), the parties renewed their cross-motions for summary judgment on the question of validity under § 101, with CLS adding invalidity contentions drawn to the newly issued '375 patent. Along with the parties' briefing, the district court also had before it (i) the asserted patents themselves, (ii) excerpts from the patents' prosecution histories, (iii) various guidelines issued by the United States Patent and Trademark Office ("PTO") regarding the application of § 101 during patent examination, and (iv) a declaration submitted by Alice's expert Paul Ginsberg. In particular, Mr. Ginsberg explained the operation of Alice's systems and methods, see generally *CLS Bank*, 768 F. Supp. 2d at 224, and opined that a person of skill in the art reading the asserted patents would conclude that the claimed inventions must be implemented electronically using "some type of computing processor and memory." Ginsberg Decl., ECF No. 95-3, Ex. 1 ¶ 41.

The district court did not conduct claim construction before reaching the merits of the § 101 issue, but the parties agreed for purposes of deciding their [\*13] summary judgment motions that Alice's claims should all

be interpreted to require a computer including at least "a processor and memory." *CLS Bank*, 768 F. Supp. 2d at 236; see *id.* at 235-36 ("The Court has yet to construe the terms of these claims . . . . [F]or purposes of these motions, CLS has agreed to assume a construction of terms favorable to Alice."). With the parties' assent, the district court assumed that all of the asserted claims required electronic implementation, noting consistent disclosures in the patents' specifications as well as the statements of Alice's expert, Mr. Ginsberg. *Id.* at 236.

With that understanding of the claims, the district court granted summary judgment in favor of CLS, holding each of the asserted claims of Alice's patents invalid under § 101. The district court concluded that Alice's method claims "are directed to an abstract idea of employing an intermediary to facilitate simultaneous exchange of obligations in order to minimize risk." *Id.* at 243. Further, the district court held the asserted system claims similarly ineligible, as those claims "would preempt the use of the abstract concept of employing a neutral intermediary to facilitate simultaneous [\*14] exchange of obligations in order to minimize risk on any computer, which is, as a practical matter, how these processes are likely to be applied." *Id.* at 252. The asserted media claims failed on the same ground as "directed to the same abstract concept despite the fact they nominally recite a different category of invention." *Id.* at 255.

Accordingly, the district court entered final judgment in favor of CLS, and Alice timely appealed. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

## DISCUSSION

### I. Standard of Review

We review the grant or denial of summary judgment applying the law of the relevant regional circuit. *Teva Pharm. Indus. v. AstraZeneca Pharms. LP*, 661 F.3d 1378, 1381 (Fed. Cir. 2011). The D.C. Circuit considers a district court's grant of summary judgment without deference. *Theodore Roosevelt Conservation P'ship v. Salazar*, 661 F.3d 66, 72, 398 U.S. App. D.C. 199 (D.C. Cir. 2011). We apply our own law, however, with respect to issues of substantive patent law. *Aero Prods. Int'l, Inc. v. Intex Recreation Corp.*, 466 F.3d 1000, 1016 (Fed. Cir. 2006). Patent eligibility under § 101 presents an issue of law that we review *de novo*. *Bancorp Servs., LLC v. Sun Life Assurance Co. of Can.*, 687 F.3d 1266, 1273 (Fed. Cir. 2012).

### II. [\*15] Section 101

#### A. Statutory Subject Matter and Common Law Exceptions

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101 (2006). Short and unadorned, § 101 appears deceptively simple on its face, yet its proper application to computer-implemented inventions and in various other fields of technology has long vexed this and other courts.

The statute sets forth four broadly stated categories of patent-eligible subject matter: processes, machines, manufactures, and compositions of matter. As the Supreme Court has explained, Congress intended that the statutory categories would be broad and inclusive to best serve the patent system's constitutional objective of encouraging innovation. See *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09, 100 S. Ct. 2204, 65 L. Ed. 2d 144 (1980) ("In choosing such expansive terms as 'manufacture' and 'composition of matter,' modified by the comprehensive 'any,' Congress plainly contemplated that the patent laws would be given wide scope."); *Bilski*, 130 S. Ct. at 3225 ("Congress took this permissive approach [\*16] to patent eligibility to ensure that 'ingenuity should receive a liberal encouragement.'" (quoting *Chakrabarty*, 447 U.S. at 308)).

It is also important to recognize that § 101, while far-reaching, only addresses patent *eligibility*, not overall *patentability*. The statute directs that an invention that falls within one of its four enumerated categories "may" qualify for a patent; thus, inventions that are patent eligible are not necessarily patentable. As § 101 itself explains, the ultimate question of patentability turns on whether, in addition to presenting a patent-eligible invention, the inventor also satisfies "the conditions and requirements of this title," namely, the novelty, nonobviousness, and disclosure requirements of 35 U.S.C. §§ 102, 103, and 112, among others. See 35 U.S.C. § 101. Congress's broad approach to subject-matter eligibility ensures that the patent office doors remain open to most inventions, but even so, those that gain entry still must surmount various substantive and procedural hurdles that stand between patent eligibility and a valid patent. See *Diamond v. Diehr*, 450 U.S. 175, 191, 101 S. Ct. 1048, 67 L. Ed. 2d 155 (1981).

While the categories of patent-eligible subject matter recited in § 101 [\*17] are broad, their scope is limited by three important judicially created exceptions. "[L]aws of nature, natural phenomena, and abstract ideas" are excluded from patent eligibility, *id.* at 185, because such fundamental discoveries represent "the basic tools of scientific and technological work," *Gottschalk v. Benson*, 409 U.S. 63, 67, 93 S. Ct. 253, 34 L. Ed. 2d 273 (1972). Thus, even inventions that fit within one or more of the statutory categories are not patent eligible if drawn to a

law of nature, a natural phenomenon, or an abstract idea. The underlying concern is that patents covering such elemental concepts would reach too far and claim too much, on balance obstructing rather than catalyzing innovation. But danger also lies in applying the judicial exceptions too aggressively because "all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293, 182 L. Ed. 2d 321 (2012). Taken too far, the exceptions could swallow patent law entirely.

Accordingly, the basic steps in a patent-eligibility analysis can be summarized as follows. We must first ask whether the claimed invention is a process, machine, [\*18] manufacture, or composition of matter. If not, the claim is ineligible under § 101. If the invention falls within one of the statutory categories, we must then determine whether any of the three judicial exceptions nonetheless bars such a claim--is the claim drawn to a patent-ineligible law of nature, natural phenomenon, or abstract idea? If so, the claim is not patent eligible. Only claims that pass both inquiries satisfy § 101.

While simple enough to state, the patent-eligibility test has proven quite difficult to apply. The difficulty lies in consistently and predictably differentiating between, on the one hand, claims that would tie up laws of nature, natural phenomena, or abstract ideas, and, on the other, claims that merely "embody, use, reflect, rest upon, or apply" those fundamental tools. *Mayo*, 132 S. Ct. at 1293. For example, deciding whether or not a particular claim is abstract can feel subjective and unsystematic, and the debate often trends toward the metaphysical, littered with unhelpful analogies and generalizations. What is needed is a consistent, cohesive, and accessible approach to the § 101 analysis--a framework that will provide guidance and predictability for patent [\*19] applicants and examiners, litigants, and the courts. As set forth below, the Supreme Court's foundational § 101 jurisprudence offers the guideposts to such a system, one that turns primarily on the practical likelihood of a claim preempting a fundamental concept. We would adopt this approach to address the abstractness of the specific computer-implemented inventions presented in this case, but it might also inform patent-eligibility inquiries arising in other contexts.

## B. Foundational *Section 101* Precedents

### 1. *Gottschalk v. Benson*

In *Benson*, the Supreme Court considered claims to computer-implemented methods "for converting binary-coded decimal (BCD) numerals into pure binary numerals." 409 U.S. at 64. The claims each recited a series of data manipulation steps for effecting the indicated

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