

No. 17-645

IN THE
Supreme Court of the United States

—◆—
RECOGNICORP, LLC,
Petitioner,

v.

NINTENDO CO., LTD. AND
NINTENDO OF AMERICA, INC.,
Respondents.

—◆—
**On Petition for a Writ of Certiorari
to the United States Cour tof Appeals
for the Federal Circuit**

—◆—
**AMICUS CURIAE BRIEF
OF PAUL GILBERT COLE
IN SUPPORT OF PETITIONER**

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INTEREST OF *AMICUS CURIAE*¹

Paul Gilbert Cole is a practicing UK and European patent attorney, is a council member of the Chartered Institute of Patent Attorneys (CIPA), is a visiting professor in IP Law at Bournemouth University in the UK, and has been writing about and teaching patent law for some 40 years. He is concerned with the integrity of the legal system and the correctness of the consequential guidance that is given to patent examiners in the United States Patent and Trademark Office (USPTO). It is his professional opinion that this court should grant certiorari in this case because the decision of the United States Court of Appeals for the Federal Circuit applying 35 U.S.C. § 101 exceeds the scope of the Supreme Court's § 101 jurisprudence and the scope of Article 27 of the TRIPS agreement², with consequential harm to future U.S. patent applicants and to harmonious development of the patent system internationally, and because a petition for *en banc* rehearing was denied. He submitted an *amicus* brief on 27 August 2015 in *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371 (Fed. Cir. 2015), *cert.*

¹ No counsel for a party authored this brief in whole or in part, and no party directly or indirectly made a monetary contribution to the preparation or submission of this brief. The parties in this case have mutually agreed to the filing of *Amicus* briefs.

² Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), *see generally* Uruguay Round Agreements Act, Pub.L. No. 103-465, 108 Stat. 4809 (1994).

denied, 136 S. Ct. 2511 (2016)³, and was lead author of briefs submitted to the Supreme Court in that case by the CIPA⁴ and by the Institute of Professional Representatives before the European Patent Office⁵. He authored this brief in its entirety, is authorized to file this brief by his firm, Lucas & Co., Warlingham, UK, and has no stake in the parties or in the outcome of this case.⁶

The range of patent-eligible subject matter in the United States is of fundamental concern to CIPA members and their clients, as is the harmonious development of patent law internationally. Patent protection is important for inventions both in the computer software arts and also in the life sciences, where research, product development and commercial activities depend upon broad and stable patent eligibility criteria. CIPA is concerned that expansive interpretations of recent decisions of this Court by the Federal Circuit and district courts and

³ Brief of *Amicus Curiae* Paul Gilbert Cole in Support of the Appellants' Petition for Rehearing En Banc.

⁴ Brief of *Amicus Curiae* The Chartered Institute of Patent Attorneys in Support of the Petitioner, <http://www.scotusblog.com/wp-content/uploads/2016/04/15-1182.amicus.final_.pdf>

⁵ Brief of *Amicus Curiae* the Institute of Professional Representatives before the European Patent Office in Support of Neither Party <http://www.scotusblog.com/wp-content/uploads/2016/04/15-1182.amicus.final_.pdf>

⁶ Counsel of record consulted with the parties in this matter to request their consent to file this *amicus* brief. Appellant RecogniCorp, LLC and Appellees Nintendo Co., Ltd. and Nintendo of America, Inc. consented to its filing.

further downstream by the United States Patent and Trademark Office (USPTO) place undue burden and internationally discordant restrictions on long-established and widely accepted eligibility criteria. The situation affects many members of the UK (and international) public with applications undergoing examination by the USPTO.

PRECEDENTIAL QUESTIONS REQUIRING CONSIDERATION

This case, amongst others, requires consideration of the following fundamental issues of patent law:

1. Whether claimed subject-matter which falls as a matter of substance and not mere outward presentation within one of the eligible categories of 35 USC §101 positively enacted by Congress can be denied patentable eligibility by a US court using the doctrine of judicial exception without contravening the doctrine of separation of powers.
2. Whether a court is entitled to hold that claimed subject-matter falls into one of the judicially excepted categories without first considering whether or not it falls into one of the categories positively enacted by Congress as being eligible.
- (3) What scope is attributable to the phrase “directed to” in the first stage of the *Alice* test, at what level of abstraction is interpretation of a representative claim impermissibly untethered from the express language of that claim, and is an

abstraction permissible where it omits reference to elements positively recited in a representative claim?

(4) Is a new and beneficial result improving a technological process available to rebut an objection that claimed subject matter falls within the law of nature, natural phenomenon or abstract idea exception?

(5) Is the *Alice* test, as applied in the breadth of the present decision, incompatible with the obligations of the United States under Article 27 of TRIPS?

ARGUMENT

I. Summary of the Argument

The need for consideration of the approach to patent eligibility is demonstrated by a lengthy series of cases in the lower courts in which the so-called *Mayo* approach to 35 USC §101 eligibility has been applied with undue breadth, and with insufficient attention to the detailed wording in the claim.

There are three such cases in which the writer has been personally involved and which these faults were apparent. One of these is *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, the subject of an earlier petition to this Court, and in relation to which CIPA filed the *amicus* brief footnoted above. The second is the present case. The third is *Athena Diagnostics, Inc. v. Mayo* United States District Court for the

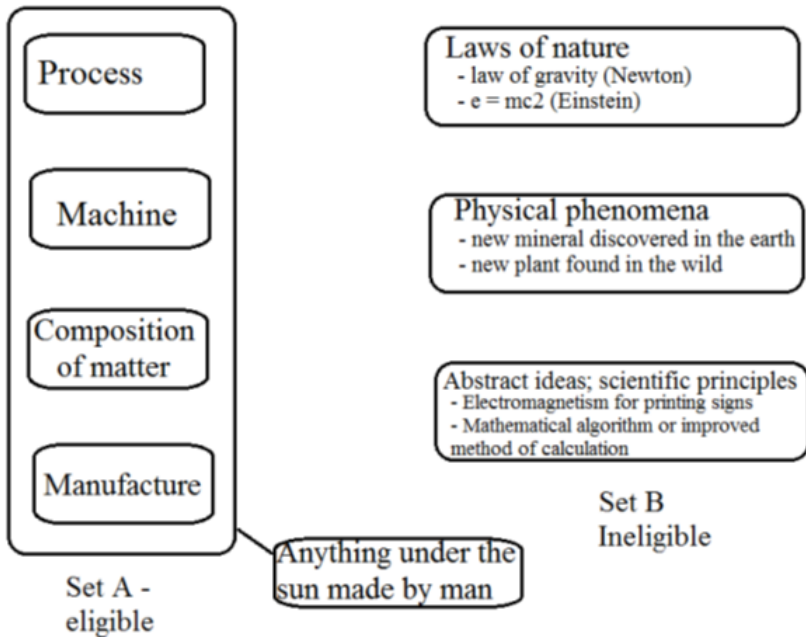
Northern District of California in Nos. 3:11-cv-06391-SI, 3:12-cv-00132-SI, Judge Susan Illston, currently on appeal to the Federal Circuit, and for which an *amicus* brief has been filed by CIPA. Other *amicus* briefs in that case have been filed e.g. by five life sciences practitioners, The Biotechnology Innovation Organization and Ten law professors.

All of these express concern about over-broad interpretation of the judicial exclusions and undue laxity in the application of the “directed to” test for claim interpretation which has now degenerated into a “focused” test as explained in CIPA’s *Athena* brief. The contrast between the lax approach to interpretation under §101 and the far more detailed and searching interpretation under §§102, 103, 112 and the infringement sections could not be more profound. The need for similar interpretation of claim scope for all these sections is self-evident, as is the need for that interpretation to conform acceptably with standards in the UK, in other European countries and elsewhere in the world.

II. Eligible categories provided by Congress, judicial exceptions and separation of powers.

Congress unacted under 35 USC §101 that: “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.” These provisions have long been held to be subject to

judicial exceptions for laws of nature, abstract ideas and natural phenomena. These may be represented in a Venn diagram:



It will be apparent to any educated person that there is in principle no overlap between the eligible categories in Set A and the ineligible categories in set B. There is no objection of principle against invoking the two-part *Mayo* test to check whether subject-matter seemingly falling into one of the four eligible categories, but invoking a judicial exception against subject matter that falls as a matter of substance within an eligible category amounts to impermissible judicial legislation, see Antonin Scalia and Bryan A. Garner, *Reading Law*:

The Interpretation of Legal Texts, Thompson/West, 2012, pages 93-100, Omitted-Case Canon.

In the present case a representative claim considered by the Federal Circuit read:

A method for creating a composite image, comprising:

displaying facial feature images on a first area of a first display via a first device associated with the first display, wherein the facial feature images are associated with facial feature element codes;

selecting a facial feature image from the first area of the first display via a user interface associated with the first device, wherein the first device incorporates the selected facial feature image into a composite image on a second area of the first display, wherein the composite image is associated with a composite facial image code having at least a facial feature element code and wherein the composite facial image code is derived by performing at least one multiplication operation on a facial code using one or more code factors as input parameters to the multiplication operation; and

reproducing the composite image on a second display based on the composite facial image code

The invention and its novelty and utility acknowledged by the Federal Circuit under the heading BACKGROUND as follows:

Prior to the invention disclosed in the '303 patent, composite facial images typically were stored in file formats such as "bitmap," "gif," or "jpeg." But these file formats required significant memory, and compressing the images often resulted in decreased image quality. Digital transmission of these images could be difficult. The '303 patent sought to solve this problem by encoding the image at one end through a variety of image classes that required less memory and bandwidth, and at the other end decoding the images.

The classic definition of a process is that it is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject matter to be transformed and reduced to a different state or thing, see *Cochrane v. Deener*, 94 U.S. 780, 788 noted in *Gottschalk v. Benson*, 409 U.S. 63 (1972). In the present case, the materials to be transformed are images on computer screens, but are tangible and material things, not mere data as held by the Federal Circuit. It follows that the claimed subject matter falls as a matter of substance, and not mere presentation, within the definition of an eligible process, and its removal from eligibility does not fall within permissible judicial interpretation of the statutory provisions, but objectionable re-writing.

III. Failure to consider positive eligibility as well as judicial exceptions.

In its opinion, the Federal Circuit gave no attention to the positive eligible categories but instead launched immediately into consideration of judicial exceptions under *Mayo*. That practice is consistently followed in Federal Circuit opinions, positive eligibility analysis being nowadays almost unknown.

The undesirability of considering only the exceptions to a section of a statute without also considering the positive provisions of that section needs no elaboration. A student at Bournemouth University who repeatedly and wilfully followed this approach would not only receive a failing grade, but would be interviewed to discuss his or her aptitude for a career in law. The opportunity to correct this plainly undesirable practice within the Federal Circuit in one that needs to be taken.

IV. Refinement of the first stage of the *Alice* test and evolution of rules that are more fixed and are rooted in the claim language are important to the public both from the standpoint of those conducting proceedings before the USPTO and those involved in litigation before the courts.

The decision in this case applied the two-step test set out in *Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) with undue breadth. In the

first step, the phrase “directed to” was applied using a mere paraphrase of only part of the subject matter of the representative claim while disregarding other significant elements of that claim. Arbitrary disregard of claimed elements when conducting the § 101 analysis creates uncertainty for patent applicants based both in the U.S. and in Europe, for those involved in re-examination and contentious proceedings before the USPTO and for those involved in litigation. The decision held that the present case is similar to *Digitech Image Technologies, LLC v. Electronics for Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014). However, the representative claims in *Digitech* were directed to a device profile and to a method for generating it, the device profile explicitly combining first and second data, so that it could truly be said that the claimed method began and ended with data. In contrast, the identical finding in this case⁷ ignores the fact, apparent to any ordinarily-skilled reader of the representative claim, that the method starts not with data but with one physical image on a first display and ends not with data but with a second physical image on a second display. The fact pattern in the present case was therefore entirely different from that in *Digitech* and calls for both different reasoning and a different outcome.

The words “directed to” lack clear definition, which may account for the risk of inappropriate paraphrasing of specific and detailed claim language

⁷ Slip opinion, page 9, final sentences of first paragraph.

leading to unacceptable flexibility, so that the doctrines of patent eligibility risk changing with every succeeding judge or USPTO examiner in a manner reminiscent of John Selden's jibe published in 1689 that "equity varied with the length of the Chancellor's foot"⁸. It is submitted that consideration of the case by the Court should reaffirm in the context of the § 101 judicial exceptions the established rule in the decisions cited above that all elements or limitations recited in a claim must be taken into account when considering anticipation or infringement, and hence by implication § 101 eligibility, and that the arrangement of those elements specified in the claim must also be considered. Likewise, the holding in *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016) should be reaffirmed that describing claims at a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule, as also should the warning in *McRO, Inc. v Bandai Namco Games Am Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) that courts must be careful to avoid oversimplifying the claims by looking at them generally and failing to account for the specific requirements of the claims⁹. These principles are fundamental to patent law, not only in the U.S., but also in the U.K. and elsewhere in

⁸ See H. Jefferson Powell, "CARDOZO'S FOOT": THE CHANCELLOR'S CONSCIENCE AND CONSTRUCTIVE TRUSTS, *Law and Contemporary Problems*, 56(3), 7-27 (1993).

⁹ Slip opinion at page 21.

Europe and under the EPC, and if disregarded would introduce unacceptable uncertainty.

V. New and beneficial results should be considered under *Alice* to ensure that the test for eligibility under § 101 is no more severe than the test for non-obviousness under § 103.

The second step of the *Alice* analysis is flawed firstly as a result of oversimplification and secondly as a result of failure to take account of the benefits recited in the patent from the ordered combination. Here, such benefits include the ability of a facial image to be described with a very small number of characters compared to a graphical representation, providing the advantages of: rapid transmission of the composite picture over a data transmission medium, reduction in bandwidth for transmission of the image, and substantial savings in terms of memory requirements for storing the image.

The principle of granting patentable weight in cases that involve beneficial ordered combinations is aptly summarized by Justice Bradley in *Webster Loom Co. v. Higgins*, 105 U.S. 580, 591 (1881): “It may be laid down as a general rule, though perhaps not an invariable one, that if a new combination and arrangement of known elements produce a new and beneficial result, never attained before, it is evidence of invention.” That opinion was cited with approval by Justice Brown in *Washburn & Moen Mfg. Co. v. Beat-‘Em All Barbed Wire Co.*, 143 U.S. 275 (1892) and in *Carnegie Steel Co. v. Cambria Iron Co.*, 185

U.S. 403 (1902). Similarly, in *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007), the Court observed of the *Adams* invention: “The fact that the elements worked together in an unexpected and fruitful manner supported the conclusion that Adams’s design was not obvious to those skilled in the art.”

Amicus submits that evidence of invention under § 103 should be equally pertinent to § 101. However, this Court’s decision in the instant case recites no evidence that the benefits provided by the invention had ever been achieved before in the prior art. That is, neither the prior art paper strips nor the coding systems of Samuel Morse or Paul Revere can be said to beneficially improve the transmission of images. *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017). If the newly obtained benefits of the invention are taken into account, then the claimed ordered combination should have been held to be transformative within *Alice* step two.

VI. When broadly interpreted, the two-part *Alice* test raises issues of compliance with TRIPS.

Acts of Congress, including 35 U.S.C. § 101, where fairly possible, should be construed so as not to conflict with international law or with an international agreement with the U.S., particularly where, as with TRIPS, the U.S. was the moving

spirit¹⁰ behind the Treaty. Article 27.1 of TRIPS entitled “Patentable Subject Matter” provides a complete code for patent-eligibility which WTO member countries, including the U.S., are required to respect. It requires patents to be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step, and are capable of industrial application, and that patent rights should be enjoyable without discrimination as to the field of technology. This case is an example of an internationally discordant, not harmonious, result, contrary to the eligibility requirements of TRIPS Article 27. It conflicts with the opinion of the EPO Appeal Board in T 208/84 *Computer-related invention/VICOM* where the Appeal Board agreed with the Examining Division that a method of digitally filtering a two-dimensional data array was a mathematical method, but that as a matter of broad general principle, a method for image processing is patent-eligible subject matter under Articles 52(2) and (3) EPC¹¹. It explained:

5. There can be little doubt that any processing operation on an electric signal can

¹⁰ “[A]n act of Congress ought never to be construed to violate the law of nations if any other possible construction remains, and consequently can never be construed to violate neutral rights, or to affect neutral commerce, further than is warranted by the law of nations as understood in this country.” *Murray v. The Schooner Charming Betsy*, 6 U.S. (2 Cranch) 64, 118 (1804).

¹¹ Reasons, paragraph 3.

be described in mathematical terms. The characteristic of a filter, for example, can be expressed in terms of a mathematical formula. A basic difference between a mathematical method and a technical process can be seen, however, in the fact that a mathematical method or a mathematical algorithm is carried out on numbers (whatever these numbers may represent) and provides a result also in numerical form, the mathematical method or algorithm being only an abstract concept prescribing how to operate on the numbers. No direct technical result is produced by the method as such. In contrast thereto, if a mathematical method is used in a technical process, that process is carried out on a physical entity (which may be a material object but equally an image stored as an electric signal) by some technical means implementing the method and provides as its result a certain change in that entity. The technical means might include a computer comprising suitable hardware or an appropriately programmed general purpose computer.

6. The Board, therefore, is of the opinion that even if the idea underlying an invention may be considered to reside in a mathematical method a claim directed to a technical process in which the method is used does not seek protection for the mathematical method as such.

The preamble to the claim that was allowed by the Appeal Board is set out below, with deletions and additions relative to the version originally presented identified by brackets and underlining. It will be noted that the bulk of the claim recites the mathematical method that the Examining Division had held to be excluded.

A method of digitally [filtering a data array] processing images in the form of a two-dimensional data array having elements arranged in rows and columns in which an operator matrix of a size substantially smaller than the size of the data array is convolved with the data array

On the reasoning of the panel opinion in this case, the *VICOM* method would have been held to be “directed to” the mathematical method of filtering a data array falling within the abstract idea exclusion, that it starts with data, adds an algorithm, and ends with a new form of data¹², thereby being directed to an abstract end result, and the feature of processing images in the form of a two-dimensional data array not amounting to an inventive concept “transforming” the nature of the patent claims into a patent-eligible invention¹³. The inconvenient real-world fact that the method started with an unsmoothed image and ended with a sharpened

¹² Slip opinion, page 9 lines 2-9.

¹³ Slip opinion, page 2 lines 7-8, page 9, final paragraph, page 11, first full paragraph.

image should be disregarded since the inventive features were in the mathematical method. The reasoning of the panel opinion in this case is therefore in direct and unavoidable conflict with the reasoning in *VICOM* as also is the outcome in terms of the eligibility of methods for image processing. For these reasons, consideration by the Court is warranted in view of U.S. obligations under the TRIPS agreement.

CONCLUSION

For the reasons stated above, the judgment of the Federal Circuit should be reconsidered and reversed.

Respectfully submitted.

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