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The Honorable Margaret A. Focarino
Commissioner of Patents
P.O. Box 1450
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Re: Response to Request for Comments and Extension of Comment Period on Examination Instruction and Guidance Pertaining to Patent-Eligible Subject Matter
USPTO Docket No. PTO-P-2014-0036
79 Federal Register 36786 (June 30, 2014)

Dear Commissioner Focarino:

Howard IP Law Group, PC (the “Firm”) submits the following comments in response to the USPTO’s Request for Comments and Extension of Comment Period on Examination Instruction and Guidance Pertaining to Patent-Eligible Subject Matter, dated June 25, 2014, and published in the Federal Register on June 30, 2014, at 79 Federal Register 36786, requesting comments on the “Preliminary Examination Instructions in view of the Supreme Court Decision in *Alice Corporation Pty. Ltd. v. CLS Bank International, et al.*” dated June 25, 2014 (“Preliminary Examination Instructions”). The Firm welcomes the opportunity to provide views in response to the request for comments, and appreciates the USPTO’s willingness to consider the views of a wide variety of stakeholders in formulating examination instructions in this important area.

1) Introduction

- a) The Firm has substantial experience in prosecution of patent applications relating generally to the financial services industry, including a substantial number of cases presently and formerly under examination in Art Units 3691-3695. The Firm thus has substantial practical insight into the qualities of guidance that can assist Examiners in consistently and correctly applying the law.
- b) In Section 2 of the comments below, additional or modified guidance is recommended for the use of Examiners in connection with: (i) determining whether to apply the two-part analysis for abstract ideas as outlined in the Preliminary Examination Instructions; (ii) applying Part 1 of the two-part analysis in general; (iii) determining whether a claim is directed to a fundamental economic practice in Part 1 of the two-part analysis; and (iv) considerations in application of Part 2 of the two-part analysis. All of the recommendations for guidance are supported by case law or statute, as explained below in Sections 3 and 4 of these comments.

2) Recommendations

We recommend the following modifications and additions to the Preliminary Examination Instructions in view of the Supreme Court Decision in *Alice Corporation Pty. Ltd. v. CLS Bank International, et al.*, dated June 25, 2014.

a) Determining Whether to Apply the Two-Part Analysis

We recommend that the instructions advise Examiners to use the two-part analysis in connection with claims including recitations relating to those areas that the courts have found in the past to merit analysis under Section 101, including software-implemented processes, business methods, methods of organizing human activity, ideas of themselves, and mathematical relationships. We recommend removing from the examination instructions any wording that suggests that Examiners must or should make a preliminary determination of the presence of an abstract idea in the claim before applying the two-part test. Similarly, we recommend consistently stating that the Part 1 analysis is to determine whether a claim, apart from recitations of technology, is “directed to” an abstract idea, and not whether a claim “includes” an abstract idea, is “with” an abstract idea, or whether an abstract idea “is present in” a claim.¹

b) Performance of Prior Art Search Prior to Application of Part 1

We recommend that the instructions clarify that the claim should be analyzed under the two-part analysis only after performance of a prior art search and an analysis under Sections 102 and 103. The prior art search performed for purposes of examination under Sections 102 and 103 should include, in order to support application of the test to identify a fundamental economic practice, sources of high reliability, and particularly should include textbooks and academic articles in relevant fields, such as finance and economics.²

c) Consideration in Part 1 of All Recitations Apart from Recitations of Technology

We recommend that the instructions advise Examiners to consider all claim recitations, apart from the recitations of technology, and the relationships among those claim recitations, in determining in Part 1 of the two-part analysis whether the claims are directed to an abstract idea.³

¹ See Section 4(c)(i) below.

² See Sections 4(c)(ii)(2)-(3) below for the qualities of the sources properly relied on to establish that an economic practice is a fundamental economic practice.

³ See Section 4(c)(i) below.

d) Determination in Part 1 of Whether the Claim is Directed to a Fundamental Economic Principle

i) Single Prior Art Reference

We recommend that the instructions for Part 1 advise Examiners that, if the recitations of the claim, other than the recitations of technology, cannot be found in a single reference, then the claim is not patent ineligible as a fundamental economic principle.⁴

ii) Use in Economy for Long Period of Time

We recommend that the instructions for Part 1 advise Examiners that, if the single reference does not teach that the recitations of the claim, apart from technology, have been in use in the economy for a long period of time, then the claim is not patent ineligible as a fundamental economic principle. We recommend that the instructions provide that the threshold for a long period of time period is fact-dependent, but that a minimum period of about 25 years will prevail in most instances.⁵

iii) Prevalent Use in the Economy for the Long Period of Time

We recommend that the instructions for Part 1 advise Examiners that, if the single reference does not teach that the recitations of the claim, apart from technology, have been in prevalent use in the economy for a long period of time, then the claim is not patent ineligible as a fundamental economic principle.⁶

iv) Use of Reliable Sources to Establish Long and Prevalent Use

We recommend that the instructions for Part 1 advise Examiners that, to support a finding that the recitations of the claim, apart from technology, have been in prevalent use in the economy for a long period of time, the single prior art reference should be a source of high reliability, such as a textbook or a publication in an academic journal in the relevant field of finance, business or economics.⁷

e) Considerations in Application of Part 2 of the Two-Part Analysis

i) Risk of Pre-Emption of an Abstract Idea

We recommend that the instructions advise Examiners that the underlying basis for Part 2 of the analysis is the Supreme Court's overriding concern of avoiding pre-emption of the use of the abstract idea implemented in computer technology. Conversely, if the technological recitations leave open the practice of the abstract idea using alternative technologies, then the claim is patent eligible.⁸

⁴ See Sections 4(c)(ii)(2)-(3) below.

⁵ See Sections 4(c)(ii)(2)-(3) below.

⁶ See Sections 4(c)(ii)(2)-(3) below.

⁷ See Sections 4(c)(ii)(2)-(3) below.

⁸ See Section 4(c)(iii) below.

ii) Technological Recitations Need Not Meet Requirements of Sections 102 or 103

We recommend that the instructions relating to Part 2 advise Examiners to keep in mind that the Supreme Court did not require that the technological recitations meet the requirements of Section 102 or Section 103 in order to remove a claim from the scope of a fundamental economic practice. The appropriate comparison is between the technology recited in the claims and long-used, generic computer technology, and not as to all technology within the prior art.⁹

iii) Examples of Improvements to the Functioning of the Computer Itself

We recommend that the instructions relating to Part 2 advise Examiners that claims that recite improvements that reduce the amount of data to be processed, improve the speed and reliability of communications, simplify the input of data, and improve the speed and reliability of data storage and retrieval, by way of non-limiting example, in comparison to long-used, generic computer technology, are patent-eligible.¹⁰

3) Basic Principles

The recommendations above stem from the statute and case law, and build on the basic principle that the Supreme Court has clearly stated that there is no prohibition on the patenting of business methods and software as a class. The Supreme Court has stated clearly that the judicially-created abstract idea exception to the statutory definition of patent eligibility in 35 U.S.C. § 101 does not render business methods as a class patent ineligible. As the Court stated in Bilski v. Kappos: “Section 101...precludes the broad contention that the term ‘process’ categorically excludes business methods.” Bilski v. Kappos, 130 S. Ct. 3218, 3328 (2010). The Court’s decision in Alice clearly follows this precedent. In Alice, the Court first determined whether the claims were directed to a fundamental economic practice. Alice Corporation Pty. Ltd. v. CLS Bank International, No. 13-298, slip op. (June 19, 2014), at 19-20. The Court then went on to examine, with a view to avoiding pre-emption of a fundamental economic practice, whether the claims added more than a recitation of a generic computer to the fundamental economic practice. Slip op. at 26. If the Court had deemed that the abstract idea exception to the definition of patent-eligible subject matter in Section 101 entirely precluded patent protection for claims directed to business methods, the Court could have dispensed with both of these steps, and simply ruled that that the claims were directed to a patent-ineligible business method. Rather, the Supreme Court in Bilski and Alice has provided guidance on the definition of abstract idea in the field of business methods, and, in Alice, extended the applicability of the two part analysis from Mayo Collaborative Servs. v. Prometheus Labs., Inc., 132 S. Ct. 1289 (U.S. 2012) to determining applicability of the judicially-created exception. Under the Mayo analysis, as adopted in Alice, a claim must fail both parts of the two-part test, properly construed, to be determined to be within the abstract idea exception to the statutory definition of patent-eligible subject matter.

⁹ See Section 4(c)(iii) below.

¹⁰ See Section 4(c)(iii) below.

4) Statutory And Case Law Background

a) 35 U.S.C. §101

The statutory definition of subject matter eligible for patent protection is set forth in 35 U.S.C. §101, which reads as follows:

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.

As the Supreme Court has said, in “choosing such expansive terms...modified by the comprehensive “any,” Congress plainly contemplated that the patent laws would be given wide scope.” Bilski v. Kappos, 130 S. Ct. at 3321 (quoting Diamond v. Chakrabarty, 447 U.S. 303 (1980)). Thus, in order to determine whether the statutory definition of eligible subject matter under Section 101 has been met, the Examiner must determine whether the claims are directed to one of the four statutory categories of process, machine, manufacture, or composition of matter.

b) Judicially-Created Abstract Idea Exception

The Courts have stated for over 150 years that abstract ideas, as well as laws of nature, are not patent-eligible subject matter. E.g., Alice, slip op. at 13-14. While the Patent Act of 1952 did not include an abstract ideas exception in Section 101, the Courts have continued to apply an abstract idea exception. The Supreme Court’s guidance with respect to the scope of the abstract idea exception as applied to business methods is set forth in the Bilski and Alice decisions.

c) Two-Part Mayo/Alice Analysis

i) Focus on the Subject Matter to Which the Claims Are Directed

The Supreme Court, in both Bilski and Alice, has made clear that the inquiry as to whether the claims are directed to an abstract idea concerns the subject matter to which the claims are directed, and not all subject matter merely included or referenced in the claims. The Alice Court explicitly stated that the inquiry is based on the subject matter to which the claims are directed, and provided a very detailed summary of that subject matter:

[T]he claims at issue here are directed to an abstract idea. Petitioner’s claims involve a method of exchanging financial obligations between two parties using a third-party intermediary to mitigate settlement risk. The intermediary creates and updates “shadow” records to reflect the value of each party’s actual accounts held at “exchange institutions,” thereby permitting only those transactions for which the parties have sufficient resources. At the end of each day, the intermediary issues irrevocable instructions to the exchange institutions to carry out the permitted transactions.

Alice, slip op. at 19. Similarly, the Bilski court focused on the subject matter that the applicant sought to patent, not subject matter referenced in or involved in the claims:

Petitioners seek to patent both the concept of hedging risk and the application of that concept to energy markets.

Bilski, 130 S.Ct. at 3222. Accordingly, the inquiry is on the subject matter which is sought to be patented, and not subject matter merely mentioned in the claim.

ii) Part I: Fundamental Economic Practice

(1) Definition of Abstract Idea as Fundamental Economic Practice

The Supreme Court in Bilski and Alice has made clear that an abstract idea, in the context of business methods, is a fundamental economic practice.

(2) Example Of Fundamental Economic Practice From Bilski – Hedging

The Supreme Court in Bilski defined a fundamental economic practice, identified hedging as an example of such a fundamental economic practice, and provided examples of the types of prior art references that are suitable to rely upon in establishing whether a given business method constitutes a fundamental economic practice.

The Bilski Court stated:

Claims 1 and 4 in petitioners' application explain the basic concept of hedging, or protecting against risk: 'Hedging is a fundamental economic practice long prevalent in our system of commerce and taught in any introductory finance class.' 545 F.3d at, 1013 (Rader, J., dissenting); see, e.g., D. Chorafas, Introduction to Derivative Financial Instruments 75-94 (2008); C. Stickney, R. Weil, K. Schipper, & J. Francis, Financial Accounting: An Introduction to Concepts, Methods, and Uses 581-582 (13th ed. 2010); S. Ross, R. Westerfield, & B. Jordan, Fundamentals of Corporate Finance 743-744 (8th ed. 2008).

Bilski, 130 S. Ct. at 3230.

The Supreme Court in Bilski accordingly established that, in order to qualify as a fundamental economic practice, a practice must have been in use in the economy for a long period of time, and, furthermore, must have been prevalent in the economy for a long period of time. A practice that has been known or in use for a long period of time, but has not been so widely used for a long period of time as to qualify as prevalent, is not a fundamental economic practice. A practice that is now prevalent in the economy, but has not been prevalent for a long period of time, fails to qualify as a fundamental economic practice.

The Supreme Court relied on multiple textbooks in the fields of finance and accounting to establish that hedging qualifies as a fundamental economic practice. Multiple textbooks are thus established as a reliable source in establishing that a given practice qualifies as a fundamental economic practice. Each of those textbooks, independently, demonstrates the use of the practice of hedging that the applicants sought patent.

(3) Example of Fundamental Economic Practice from Alice – Intermediated Settlement.

In Alice, the Supreme Court similarly identified the conditions of both long use and prevalent use for a given practice to qualify as a fundamental economic practice, stating:

Like the risk hedging in *Bilski*, the concept of intermediated settlement is ‘a fundamental economic practice long prevalent in our system of commerce.’” *Ibid.*; see, *e.g.*, Emery, Speculation on the Stock and Produce Exchanges of the United States, in 7 Studies in History, Economics and Public Law 283, 346-356 (1896) (discussing the use of a “clearing-house” as an intermediary to reduce settlement risk). The use of a third-party intermediary (or “clearing house”) is also a building block of the modern economy. See, *e.g.*, Yadav, The Problematic Case of Clearinghouses in Complex Markets, 101 Geo. L. J. 387, 406-412 (2013); J. Hull, Risk Management and Financial Institutions 103-104 (3d ed. 2012).

Thus, the Supreme Court reiterated that, in order to qualify as a fundamental economic practice, a practice must meet both the requirements of long use in the economy, and long use to an extent to qualify as prevalent. The Supreme Court provided, in addition to textbooks, academic articles as an appropriate source to establish that a given practice has been in use sufficiently long, and whether that long use has been sufficiently prevalent, to qualify as a fundamental economic practice. It is notable that one of the sources that the Supreme Court relied upon was published in 1896. Similarly to the sources relied upon in Bilski, any of these sources would establish that intermediated settlement was in prevalent use for the requisite long period.

iii) Part II: Generic Computer Technology

The Alice Court established the principle that a claim directed to a fundamental economic practice is nevertheless patent-eligible if the computer-related recitations of the claim do more than add generic computer technology to the claim. As the Court stated, a claim’s recitation of a computer must amount to more than an instruction to implement a fundamental economic practice on a computer:

Thus, if a patent’s recitation of a computer amounts to a mere instruction to ‘implemen[t]’ an abstract idea ‘on . . . a computer,’ *Mayo, supra*, at ___, 132 S. Ct. 1289, 182 L. Ed. 2d 321, 337), that addition cannot impart patent eligibility. This conclusion accords with the pre-emption concern that undergirds our §101 jurisprudence. Given the ubiquity of computers, see 717 F. 3d, at 1286 (Lourie, J., concurring), wholly generic computer implementation is not generally the sort of “additional featur[e]” that provides any ‘practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.’ *Mayo*, 566 U.S., at ___, 132 S. Ct. 1289, 182 L. Ed. 2d 321, 327).

The Court found the use of hardware elements that had long been used in computers as not sufficient to establish eligibility, stating that terms such as “data processing system,” “communications controller” and “data storage unit” are purely generic. Slip op. at 16. As noted by the Alice Court, these conclusions are all based on the concern with pre-emption of abstract ideas that is the basis for the judicially created exception to the definition of statutory subject matter. (“We have described the concern that drives this exclusionary principle as one of pre-emption.” Alice, slip op. at 14.)

In accordance with the Court’s guidance in Alice, the technology recitations of a claim must be reviewed with a view to determining whether those recitations will pre-empt the use of the fundamental economic practice recited in the claims, by doing no more than providing an instruction to implement the fundamental economic practice on a computer using hardware that has long been in use. If the technology recitations leave open applications of the fundamental economic practice using different computer technology, then there is no danger of pre-emption, and the claim is patent-eligible.

Furthermore, the Alice Court provided examples as to types of recitations that constitute more than a mere instruction to implement a fundamental economic practice on a computer. The Court stated:

The method claims do not, for example, purport to improve the functioning of the computer itself.

Slip op. at 15.

Thus, claims that include recitations of method steps or structure that improve the functioning of a computer that is configured to implement a fundamental economic practice are patent-eligible. By way of example, recitations that improve the functioning of computers in such areas as speed of data processing, accuracy of data processing, storage and retrieval of data, transmission and communication of data, and related fields, will establish a claim as patent-eligible.

Similarly, the Court stated:

Nor do they effect an improvement in any other technology or technical field.

Slip op. at 15. Thus, claims that include recitations that result in improvements in a technology or technical field other than data processing are patent eligible. The Supreme Court noted with approval the use of a thermocouple to improve a process, by way of example.

Notably, the Supreme Court did not import the requirements of Section 102 or Section 103 of the statute into Part 2 of the analysis. The Court neither referred to those sections of the statute, nor employed the terms “novelty” or “nonobviousness” in its analysis. Rather, the Court compared the technology recited in the claims to generic, long-used computer technology. Accordingly, there is no requirement that recitations of technology meet the standards of novelty or nonobviousness in order to qualify as more than generic computer technology under Part 2 of the Alice analysis.

Conclusion

We appreciate the opportunity to provide these comments in response to the Notice regarding the Request for Comments and Extension of Comment Period on Examination Instruction and Guidance Pertaining to Patent-Eligible Subject Matter, requesting comments on the “Preliminary Examination Instructions in view of the Supreme Court’s Decision in *Alice Corporation Pty. Ltd. v. CLS Bank International, et al.* We would be pleased to answer any questions that our comments may raise, and would welcome the opportunity to participate further in the development of examination instructions in this area.

Respectfully submitted,

/Robert E. Rosenthal/

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