

July 31, 2014

Via Electronic Mail: alice_2014@uspto.gov

Attn: Raul Tamayo
Mail Stop Comments—Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandra, VA 22313-1450

Re: Comments on *Preliminary Examination Instructions in view of the Supreme Court Decision in Alice Corporation Pty. v. CLS Bank International, et al.* (June 25, 2014)

Dear Mr. Tamayo:

BGC Partners, Inc. (“BGC”) and Cantor Fitzgerald, L.P. (“Cantor”) write in response to the PTO’s Request for Comment on the PTO’s *Preliminary Instructions*.

BGC is a leading global brokerage company primarily servicing the financial and real estate markets. Its products include fixed income securities, interest rate swaps, foreign exchange, equities, equity derivatives, credit derivatives, commercial real estate, commodities, futures, and structured products. BGC also provides a wide range of services, including trade execution, broker-dealer services, clearing, processing, information, and other back-office services to a broad range of financial and non-financial institutions. BGC separated from and is affiliated with Cantor, a leading global financial services firm. A preeminent investment bank that serves institutional clients around the world, Cantor is recognized for strengths in fixed income and equity capital markets, investment banking, prime brokerage, and commercial real estate finance and for its global distribution platform. Cantor’s broker-dealer business (Cantor Fitzgerald & Co.) is one of 22 primary dealers authorized to trade U.S. government securities with The Federal Reserve Bank of New York.

BGC and Cantor invest heavily in developing new products and new companies, and make a concerted effort to develop and invest in their patent portfolios to protect these investments. BGC and Cantor own over 1000 patent related assets in the U.S. alone covering numerous technologies including financial services, gaming, and consumer oriented services.

BGC and Cantor have found that since issuance of the *Preliminary Instructions*, virtually every application is being rejected under §101, numerous allowances are being withdrawn, and applications are being withdrawn from issuance, all purportedly based on the *Preliminary Instructions*. BGC and Cantor respectfully suggest that the *Preliminary Instructions* as presently applied are doing precisely what the Supreme Court warned against, i.e., swallowing all of patent law. BGC and Cantor offer recommendations that will result in further clarification.

Recommendations

1. The categories of “abstract ideas” should be narrowly construed

The *Preliminary Instructions* properly note that the courts have tread carefully in construing the abstract ideas exclusion because, at some level, all inventions embody, use, reflect, rest upon or apply abstract ideas and the other exceptions. Indeed, the Court in *Alice* warned that “we need to tread carefully in construing this exclusionary principle lest it swallow all of patent law.” *Alice*, slip op. at 6. We recommend that Final Instructions make clear that the categories of abstract ideas should be narrowly construed. Specifically, Final Instructions should:

- 1) Limit the categories of abstract ideas to those enumerated by the Court (i) unless there is a clear explanation for an expansion beyond the enumerated categories (including an explanation as to how a purported abstract idea is analogous to those enumerated by the Court) and (ii) unless there is signoff by a specialist that oversees the expansion.
- 2) Clarify that an abstract idea is not merely the generalized field of invention or the purpose of a claimed invention. For example, neither the Court in *Bilski* nor the Court in *Alice* characterized the abstract idea merely as “risk mitigation” or “financial transactions.” Rather, the Court in *Bilski* and the Court in *Alice* identified the respective abstract ideas as specific processes: “hedging, or protecting against risk” *Bilski v. Kappos*, 130 S.Ct. 3218, 3231 (2010); “intermediated settlement, i.e., the use of a third party to mitigate settlement risk” *Alice*, slip op. at 8 and 9. Recent office actions that BGC and Cantor have received have identified the following generalized fields of invention or purposes of the claimed invention as being “abstract ideas.” Final Instructions should make clear that these do not qualify as “abstract ideas” as the Supreme Court has defined the term:
 - “trading a financial instrument”
 - “matching orders and executing the matched order”
 - “displaying market trade data”
 - “ordering products”
 - “buying and selling goods”
 - “how to play a game”
 - “determining real-estate value index”
- 3) Remove as an example of an abstract idea “Certain methods of organizing human behavior” (page 2 of the *Preliminary Instructions*). The Court in *Alice* did not identify this phrase as one of the enumerated categories of abstract ideas. Rather, the Court used the phrase to distinguish hedging, as discussed in *Bilski*, from a preexisting, fundamental truth. *Alice*, slip op. at 10.
- 4) Clarify that not all “fundamental economic practices” are abstract, as noted at page 2 the *Preliminary Instructions*. Rather, only “fundamental economic practice[s] long prevalent in our system of commerce and taught in any introductory finance class” are abstract. *Alice*, slip op. at 8. In other words, under the reasoning of *Alice*, merely because a concept is known does not make the concept abstract. The concept must be

“long prevalent,” “a fundamental truth,” a “building block[] of human ingenuity.” *Alice*, slip op. at 6 and 8. Indeed, every economic practice is not a defacto abstract idea.

Again, the Court in *Alice* warned that “we need to tread carefully in construing this exclusionary principle lest it swallow all of patent law.” *Alice*, slip op. at 6. Allowing the categories of abstract ideas to freely expand into any generalized concept will indeed swallow all of patent law.

2. A claimed invention does not necessarily include an abstract idea

Final Instructions should remind examiners that a claimed invention does not necessarily include an abstract idea. The Court in *Alice* stated that the first step of the framework is to “determine *whether* the claims at issue are directed to one of those patent-ineligible concepts.” *Alice*, slip op. at 7. The Court did not say that step one is to determine the abstract idea at which the claim is directed. In other words, every claim does not necessarily include an abstract idea.

Nonetheless, in view of the number of office actions BGC and Cantor are currently receiving with § 101 rejections, the number of allowances being withdrawn, and the number of applications being withdrawn from issuance all purportedly based on the *Preliminary Instructions*, examiners seem to be of the impression that every claim must include an abstract idea.

3. A § 101 subject matter rejection should precisely state the abstract idea

Final Instructions should make clear that a § 101 subject matter rejection should precisely state the abstract idea at issue. Merely stating that a claim recites an abstract idea is not enough. Indeed, Cantor received an action that merely states, “The claim(s) is/are directed to the abstract idea of an idea itself.” Vague assertions such as this make it impossible for an applicant to respond to the action and unnecessarily delay prosecution.

4. A § 101 subject matter rejection should support with tangible evidence any finding of an abstract idea

Final Instructions should require that a § 101 subject matter rejection that asserts an abstract idea must support that assertion with tangible evidence (i.e., evidence rising to the level of substantial evidence). Examiner opinion and explanation are not tangible evidence, let alone substantial evidence. Tangible evidence allows applicants to enter into a meaningful dialog with examiners and to rebut the assertion. Tangible evidence also will prevent the categories of abstract ideas from freely expanding.

Indeed, both the Court in *Bilski* and the Court in *Alice* supported the asserted abstract idea with tangible evidence. *Bilski*, 130 S.Ct. at 3231; *Alice*, slip op. at 9. For example, *Alice* cites a reference from 1896 as “discussing the use of a ‘clearing-house’ as an intermediary to reduce settlement risk” *and* also cites several references to support the assertion that “the use of a third-

party intermediary (or ‘clearing-house’) is ... a *building block* of the modern economy.” *Alice*, slip op. at 9.

We recommend that Final Instructions require that an office action provide substantial evidence to establish that the purported abstract idea:

- 1) existed prior to the claimed invention;
- 2) is long prevalent;
- 3) is a fundamental truth; and
- 4) is a building block of human ingenuity.

5. A § 101 subject matter rejection should require an analysis of each element and combination of elements regardless of the presence of a computer

Step two of the framework is a determination as to whether an element or combination of elements is “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [abstract idea] itself.” *Alice*, slip op. at 7. Step two of the framework notably never mentions computer related features as part of the analysis. We recommend that Final Instructions:

- 1) Clarify that step two of the framework requires all elements and combination of elements be analyzed, not just computer related features (e.g., the verb of a method claim), to determine whether there is significantly more than the abstract idea itself.
- 2) Remind examiners that the mere presence or absence in a claim of a generic computer that performs generic computer functions is not sufficient under step two to conclude that a claim is ineligible under § 101. There must be an analysis of *all* claim elements to determine whether there is significantly more than the abstract idea itself. Specifically, the Court in *Alice* discusses a generic computer only in the context that once there is a determination that the elements of claim do not amount to significantly more than the abstract idea itself, the mere implementation of the abstract idea on a generic computer will not impart patent eligibility. *Alice*, slip op. at 13.
- 3) Remind examiners that “Improvements to another technology or technical field” and “Improvements to the functioning of the computer itself” are only two examples by which the elements of claim may amount to significantly more than the abstract idea itself, not the only ways.

A recently received example § 101 rejection is below. Notably absent is any discussion of claim elements. Rather, the rejection improperly focuses only on the presence of a computer.

6. Claims 1, 13, 15, 20, 31-33 and all dependent claims are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter because the claim(s) as a whole, considering all claim elements both individually and in combination, do not amount to significantly more than an abstract idea. The claim(s) is/are directed to the abstract idea of **an idea of itself**. For instance, in *Alice Corp.* the court found that “intermediated settlement” was a fundamental economic practice, which is an abstract idea. The additional element(s) or combination of elements in the claim(s) other than the abstract idea per se amount(s) to no more than: **(i) mere instructions to implement the idea on a computer, and/or (ii) recitation of generic computer structure that serves to perform generic computer functions that are well-understood, routine, and conventional activities previously known to the pertinent industry**. Viewed as a whole, these additional claim element(s) do not provide meaningful limitation(s) to transform the abstract idea into a patent eligible application of the abstract idea such that the claim(s) amounts to significantly more than the abstract idea itself. Therefore, the claim(s) are rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter.

6. A § 101 subject matter rejection should support with tangible evidence any finding that the element(s) of a claim are well-understood, routine, conventional activities

In applying step two of the framework, the Court in *Alice* uses phrases such as “well known in the art,” “previously known to the industry,” “[p]urely conventional,” and “well-understood, routine, conventional activit[ies]” in determining that the claim elements and combination of elements do not amount to significantly more than the abstract idea itself. *Alice*, slip op. at 11 and 15. In so doing, the Court clearly injects a fact based prior art analysis into § 101. Final Instructions should require that:

- 1) A § 101 subject matter rejection that asserts each element and combination of elements are well-understood, routine, conventional activities must support that assertion with tangible evidence (i.e., evidence rising to the level of substantial evidence). Examiner opinion and explanation are not tangible evidence, let alone substantial evidence. Tangible evidence allows applicants to enter into a meaningful dialog with examiners and to rebut the assertion. Clearly, if an examiner is unable to identify tangible prior art to show that each element and combination of elements are well known in the art, the claim must amount to significantly more than the abstract idea itself. Indeed, BGC and Cantor have received several actions rejecting all claims under § 101 that have no § 102 or § 103 rejections or that have removed previously pending § 102 or § 103 rejections as being overcome by amendment or argument.

- 2) Every claim element, of both the independent *and* dependent claims, should be discussed.

Despite the Court's clear instructions that the elements of each claim both individually and as an ordered combination be considered to determine whether the additional elements transform the nature of the claim into a patent-eligible application, *Alice*, slip op. at 7, all of the actions BGC and Cantor are currently receiving with a § 101 rejection merely make conclusory assertions without any discussion of a single claim element. Another example rejection is below that is similar to the example rejection noted in point 5 above. Again, notably absent is any discussion of claim elements other than conclusory assertions. Without any reasoning to support the rejection, let alone reasoning supported by substantial evidence, an applicant cannot respond to such rejections. Rejections such as these needlessly delay prosecution.

7. Claims 1-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter because the claims as a whole, considering all claim elements both individually and in combination, do not amount to significantly more than an abstract idea. The claims are directed to the abstract idea of displaying market trade data that is a fundamental economic practice. The additional elements or combination of elements in the claims other than the abstract idea per se amounts to no more than mere instructions to implement the idea on a computer. Viewed as a whole, these additional claim elements do not provide meaningful limitations to transform the abstract idea into a patent eligible application of the abstract idea such that the claims amount to significantly more than the abstract idea itself. Therefore, the claims are rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter.

7. Final Instructions should remind examiners that there is no broad proscription against software related inventions or methods of doing business

Neither the Court in *Bilski* nor the Court in *Alice* ever held that methods of doing business are patent ineligible. Similarly, while the question of the patentability of software related inventions was at issue in *Alice*, the Court never held that such inventions are patent ineligible. Nonetheless, as mentioned above, in view of the number of office actions BGC and Cantor are currently receiving with § 101 rejections, the number of allowances being withdrawn, and the number of applications being withdrawn from issuance all purportedly based on the *Preliminary Instructions*, examiners seem to be of the impression that software related inventions and methods of doing business are no longer patent eligible subject matter. Final Instructions should reiterate that this is not the case.

BGC and Cantor appreciate the time and effort to consider our recommendations.

Respectfully submitted,

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