

10 April 2012

By email: TPCBMP_Rules@uspto.gov; TPCBMP_Definition@uspto.gov

Mail Stop Patent Board
Director of the United States Patent and Trademark Office
P.O. Box. 1450
Alexandria, VA 22313-1450

Attn: Lead Judge Michael Tierney, Covered Business Methods Patent Review, Proposed Definition for Technological Invention

Re: Changes to Implement Transitional Program for Covered Business Method Patents, RIN 0651-AC73, 77 Fed. Reg. 7080 (Feb. 10, 2012)

Re: Transitional Program for Covered Business Method Patents, Definition of Technological Invention, RIN 0651-AC75, 77 Fed. Reg. 7095 (Feb. 10, 2012)

Dear Judge Tierney,

IEEE-USA submits these comments on two of the Notices of Proposed Rule Making published on February 10, 2012, relating to the Transitional Program for Covered Business Method Patents. IEEE-USA is the United States unit of the IEEE, the world's largest professional association dedicated to advancing technological innovation and excellence for the benefit of humanity. IEEE-USA has 210,000 members, largely electrical, electronic, mechanical, and biomedical engineers, working in thousands of companies from the largest and most-established to the smallest and newest.

IEEE-USA's interest in this rulemaking reflects the immense effect that it will have on our members, their careers, and their ability to create the next generation of America's companies and jobs.

I. Definition for Technological Invention under the Transitional Covered Business Methods Patent Review, RIN 0651-AC75

In preparing our remarks on the definition of "technological invention," IEEE-USA gained a full appreciation for the difficulty of the task that Congress delegated to the USPTO in § 18(d)(2) of the 2011 Act. This difficulty is not without precedent: on the term "technological arts test" the Federal Circuit said "[w]e perceive that the contours of such a test, however, would be unclear because the meanings of the terms 'technological arts' and 'technology' are both ambiguous and *ever-changing*. And no such test has ever been explicitly adopted by the Supreme Court, this court, or our predecessor court..." *In re Bilski*, 545 F.3d 943, 960 (Fed. Cir. 2008), emphasis added. Indeed, after lengthy deliberation, we concluded that no definition can avoid some contradiction with the statute or some statement in the legislative history.

IEEE-USA believes that by returning to first principles of interpretation of statutory language and legislative history, administrative rule making, and patent law, a definition of "technological invention" (which we present in section I.C, below) emerges that is consistent with Congressional intent and the portion of the legislative history that is relevant under Supreme Court precedent.

We note that unlike the Post Grant Review procedures, which are only applicable to newly issued patents, the Transitional Covered Business Methods Review will put to question patents that issued years ago—patents that have long enjoyed the strong presumption of validity, and businesses and investors have relied upon that presumption. These patents will be the only patents from that early period that would be subject to challenges of “public use” and “on sale” evidence under the broadest reasonable interpretation and the preponderance of evidence standard. As such, great care must be taken to avoid implementing an overbroad scope of jurisdiction for the Transitional Covered Business Methods review. As we discuss in section II of this letter, a proper placement of the burden of persuasion on the patent challenger is important to prevent harassment of patentees.

A. The House Judiciary Report identifies the historical facts that define the scope of the problem

The Supreme Court has repeatedly remarked that “The remarks of a single legislator, even the sponsor, are not controlling in analyzing legislative history.”¹ The important legislative history is the Report of the House Judiciary Committee, not the remarks of legislators cited in the NPRM.

The Report of the House Judiciary Committee, Rpt. 112-98 (June 1, 2011), describes that the purpose of § 18 of the Act and Transitional Covered Business Methods review is to address a specific group of patents, those issuing in “the late 1990’s through the early 2000’s.” The Report reads, at page 54:

Transitional program for covered business method patents

A number of patent observers believe the issuance of poor business-method patents during the late 1990’s through the early 2000’s led to the patent “troll” lawsuits that compelled the Committee to launch the patent reform project 6 years ago. At the time, the USPTO lacked a sufficient number of examiners with expertise in the relevant art area. Compounding this problem, there was a dearth of available prior art to assist examiners as they reviewed business method applications. Critics also note that most countries do not grant patents for business methods.

The Act responds to the problem by creating a transitional program 1 year after enactment of the bill to implement a provisional post-grant proceeding for review of the validity of any business method patent. In contrast to the era of the late 1990’s-early 2000’s, examiners will review the best prior art available. ...

The period of concern to Congress began in the “late 1990’s” after the decision in *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F.3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998). From *State Street* and for a few years following, the USPTO was grappling with practical subject matter eligibility criteria and with low examiner expertise in the relevant art area. That Congress recognized that *State Street* had changed what many had previously thought unpatentable subject matter is evident from its 1999 enactment of the limited prior user rights for business methods in 35 U.S.C. § 273. The difficulty in examination lasted until the USPTO developed a cadre of experienced examiners and a full catalog of prior art. By the mid 2000’s, the Business Methods examining groups had adjusted by developing a larger set of electronic databases, and imposing a hyper-vigilant standard for allowance of business method patents.

By August 2006, the USPTO had developed new examination guidelines,² and the new test of those guidelines fully matured in *In re Nuijten*, 500 F.3d 1346, 84 USPQ2d 1495 (Fed. Cir. 2007), under which claims are evaluated under their “broadest reasonable interpretation,” to determine whether a single embodiment within that “broadest reasonable interpretation” fails § 101 subject matter patentability.

¹ *Chrysler Corp. v. Brown*, 441 U.S. 281, 311 (1979); *Consumer Product Safety Commission v. GTE Sylvania, Inc.*, 447 U.S. 102 (1980).

² New examination standards were introduced into MPEP 8th Ed. Rev. 5 in August 2006, replacing the 1990’s “safe harbors” guidelines.

The statutory sunset date, September 2020, also indicates that Congress implicitly meant the USPTO to target only patents issuing during the “late 1990’s through the early 2000’s,” and not to inadvertently sweep in patents issuing after this window.

IEEE-USA knows of no statement from Congress or data from the Patent Office to suggest that, as a group, business method patents issued after the early 2000’s are any “poorer” than any other group of patents. IEEE-USA suggests that this history is useful in framing a boundary on the scope of the patents that come under closest scrutiny under the Transitional Covered Business Method review, and in framing the definition of “technological invention.” While the statutory language defines the scope of the program by subject matter rather than date, Congressional intent would be best served by tailoring the subject matter bounds to the practices that were common during the target temporal window. In particular, allowable claim language changed in the mid-2000’s, and the subject matter definition of the program should track that change.

The remarks of Sens. Schumer, Coburn, and Rep. Smith, should not be given controlling weight. In any event, their remarks should be balanced against the remarks of others, including Sen. Durbin, who noted—with Sen. Schumer’s agreement—that “novel software tools and graphical user interfaces that ... [are] used within the electronic trading industry to implement trading and asset allocation strategies” are *not* the “target of section 18.” (Sen. Durbin, in colloquy with Sen. Schumer, Cong. Reg. S5428 (Sept. 8, 2011). Likewise, Sen. Schumer agreed with Sen. Durbin, that “novel machinery to count, sort, and authenticate currency and paper instruments” are not the target. The IEEE-USA members that worked on this letter have direct personal familiarity with the “software tools and graphical user interfaces” that Sen. Durbin mentions, and assures the USPTO that many of the patents in this area include no novel hardware or software component, merely novel combinations, arrangements, and configuration settings, to create a novel arrangement of information on a computer screen. We have discussed coin and currency machinery with colleagues, and we represent to the USPTO that many of the patents in this area relate solely to combinations of off-the-shelf software, and software improvements. The definition of “technological invention” should reflect this stipulation of the Senate.

B. A number of provisions of administrative law urge that the USPTO adopt a specific and broad definition of “technological invention” in order to reduce burden on the public

A number of principles of administrative law are relevant to the definition of “technological invention,” and generally counsel reduction of burden to the public and administration costs to the USPTO by (a) providing a definition that is more specific than “case by case,” and (b) broader (that is, a larger exception to the scope of “covered business method patent”) in order to reduce the number of reviews conducted. These principles include the following:

- The test should be more specific than “case by case,” and should not be a factor-weighting test:
- The Paperwork Reduction Act (PRA) requires that regulations must be “written using plain, coherent, and unambiguous terminology ... understandable to those who are to respond.”³ Executive Order 12,866 § 1(b)(12)⁴ amplifies this directive: “Each agency shall draft its regulations to be simple and easy to understand, with the goal of minimizing the potential for uncertainty and litigation arising from such uncertainty.” Any regulation that specifies that the USPTO will decide entirely on a “case-by-case” basis, or factor weighing against no ascertainable standard, with no guidance to the public, is unlikely to meet this standard.

³ Paperwork Reduction Act and OMB’s Information Collection Regulations, 44 U.S.C. § 3506(c)(3)(D); 5 C.F.R. § 1320.9(d).

⁴ Executive Order 12,866, *Regulatory Planning and Review*, 58 Fed. Reg. 51735 (Oct. 4, 1993).

- The PRA requires that regulations must be written to “minimize the burden of the collection of information on those who are to respond.”⁵ E.O. 12,866 § 1(b)(11) echoes this directive: “Each agency shall tailor its regulations to impose the least burden on society ... consistent with obtaining the regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations.” The definitions should be specific enough to give clear notice to prospective petitioners, to minimize “false start” petitions that end up denied
- E.O. 12,866, § 1(b)(5) continues, “When an agency determines that a regulation is the best available method of achieving the regulatory objective, it shall design its regulations in the most cost-effective manner to achieve the regulatory objective. In doing so, each agency shall consider incentives for innovation, consistency, predictability, the costs of enforcement and compliance (to the government, regulated entities, and the public), flexibility, distributive impacts, and equity.” Again, these concerns counsel for a specific definition (rather than a “case by case” standard), and a broad definition of “technological invention.”
- An unambiguous standard is also crucially important to the USPTO. The USPTO estimates that it costs about \$4000 to review a petition and reach a conclusion to *refuse* review.⁶ A clear standard for initiating a review will be important to avoid USPTO expenditures on a large number of petitions that must be denied.
- The test should give a broad definition to “technological invention” to minimize the number of reviews:
 - Likewise, the “minimal burden” provisions of the PRA and E.O. 12,866 § 1(b)(12) require that, if two definitions of “technological invention” are otherwise equivalent implementations of the statute, the USPTO should choose the broader one, to reduce the number of proceedings that will be conducted.
 - 35 U.S.C. § 326(b) (made applicable to Transitional Covered Business Method Review by AIA § 18(a)(1)) requires that “the Director shall consider the effect of any such regulation on the economy, the integrity of the patent system, the efficient administration of the Office, and the ability of the Office to timely complete proceedings instituted under this chapter.” These concerns likewise counsel toward a broad definition of “technological invention” to reduce the number of reviews that will be granted.⁷
 - E.O. 12,866, § 1(b)(1) requires agencies to “identify the problem that it intends to address (including, where applicable, the failures of private markets or public institutions that warrant new agency action).” Here, the “failure of public institutions” is the specific narrow segment of patents identified in the House Report, those business method patents issued in the late 1990s and early 2000s before the USPTO had developed a solid body of prior art, as discussed in section I.A of this letter. Though the statute does not give the USPTO the authority to set jurisdiction by date, the subject matter definition should be a close proxy to the relevant dates.

C. Proposed text for 37 C.F.R. § 42.301

IEEE-USA proposes the following replacement for § 42.301. (§ 42.301(a) is unchanged from the text proposed in the two NPRM’s.)

⁵ 44 U.S.C. § 3506(c)(2)(A)(iv), § 3506(c)(3)(C); *Dole v. United Steelworkers of America*, 494 U.S. 26, 33 (1990) (“Agencies are also required to minimize the burden on the public to the extent practicable.”)

⁶ See http://www.uspto.gov/aia_implementation/cost_calc_supplemental_exam.pdf

⁷ As IEEE-USA notes in other letters filed in connection with this set of NPRM’s, the USPTO’s failure to produce a record required by various requirements of administrative law, and a Regulatory Impact Analysis required under Executive Order 12,866, will frustrate both the USPTO’s ability to evaluate “integrity of the patent system” and the public’s ability to comment.

§ 42.301 Definitions.

In addition to the definitions in § 42.2, the following definitions apply to proceedings under this subpart D:

(a) *Covered business method patent* means a patent that claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for technological inventions.

(b) *Technological invention*. In determining whether a patent is for a technological invention solely for purposes of the Transitional Program for Covered Business Methods (§ 42.301(a)), a claimed invention will be considered a “technological invention” if all embodiments within the broadest reasonable interpretation of the claim have at least one of the following technological attributes:

(1) the claim is directed to a result in the applied or engineering sciences, by application of the applied and engineering sciences, the natural sciences, or mathematics; or

(2) the claim is directed to application of subject matter from the applied or engineering sciences, or use of a process, machine, article of manufacture, or composition of matter from the applied or engineering sciences.

In addition, IEEE-USA proposes that the meaning of the term “Applied and engineering sciences” should be clarified, perhaps in the regulatory text, perhaps in the final rule Federal Register Notice or other guidance, to include at least the following:

(a) biology, chemistry, physics, laws of nature, mathematics, probability or statistics, insofar as directed or applied to anything made by man;

(b) biological and medical engineering, chemical engineering, civil engineering, computational science, cognitive science, electrical engineering, mechanical engineering, medicine, nuclear engineering, and software engineering, and;

(c) *in silico* study in the natural, applied, or engineering sciences, or manipulation of data describing any property of a process, machine, article of manufacture, composition of matter, or subject matter in the natural, applied, or engineering sciences, or any improvement on any of the preceding.

D. Rationale

Congress asked the USPTO to develop “technological invention” as a *jurisdictional* test for the Transitional Covered Business Methods Review, not as a *patentability* test. The legislative history makes clear that the test for subject matter eligibility has no logical relationship to the scope of review jurisdiction. *Bilski* and *Prometheus* are no more relevant than, for example, classification in class 705.

IEEE-USA’s proposed § 42.301(b)(1) covers any claim that applies natural science or mathematics to a practical result in the applied or engineering sciences, so long as that practical result is recited in the literal language of the claim. An example is *Diamond v. Diehr*, 450 U.S. 175, 209 USPQ 1 (1981), where mathematics was applied to a practical result, opening a mold. Other examples include process control software that (as claimed) control processes or machinery in a business.

IEEE-USA’s proposed § 42.301(b)(2) covers any use of applied or engineering science, to any end. Examples include computers to compose music or to run a business, and “novel software tools and graphical user interfaces that ... [are] used within the electronic trading industry to implement trading and

asset allocation strategies” (Durbin-Schumer colloquy, Cong. Reg. S5428 (Sept. 8, 2011)), discussed at page 3 of this letter.

Under our proposed definition, a claim that *could* cover technology, but does not recite use of the technology *in the words of the claim*—as was common during the “the late 1990’s through the early 2000’s”—would be a claim in a “covered business method patent” that is not a “technological invention,” and thus eligible for review. Examples would include a patent with at least one claim that recites only actions like “capturing an image” (which—under its broadest reasonable interpretation—can be performed by a human eye and visual cortex), “sending data to a central location” (which under such broad interpretation can be performed by a human being walking from one room to another, with information held in memory), and the like.

E. The definition of “technological invention” proposed in the NPRM presents legal and practical difficulties

The definition posed in the NPRM has the following difficulties.

- The definition is circular: “technological” and “technical” are used to define “technological.” Circular definitions are never satisfactory, and might not satisfy review for “arbitrary and capricious” rule making.
- A definition that calls for “case by case” evaluation, and gives a list of questions to be asked, but sets forth no ascertainable standard against which the answers are to be weighed, is unsatisfactory. It gives individual USPTO employees unwarranted discretion, and the public too little predictability. Agency rules with no ascertainable standard are often found “arbitrary and capricious” and invalid by courts.⁸
- The proposed requirement that the claim have a “a technological feature that is novel and unobvious over the prior art” renders the proposed definition essentially null. Attorneys do not draft claims with a single *feature* that is novel and nonobvious over the art; claims *as a whole* are novel and nonobvious over the art. The legislative history does not suggest that novelty and nonobviousness are part of the jurisdictional definition of those patents eligible for Transitional Covered Business Methods Review, and the USPTO should not base its jurisdictional inquiry to *commence* a proceeding on the eventual *outcome*.

II. Standard for initiating a Transitional Covered Business Method review or other review

IEEE-USA recommends that § 42.304 be amended as follows:

§ 42.304 Content of petition.

In addition to any other notices required by subparts A and C of this part, a petition must request judgment against one or more claims of a patent identified by patent number. In addition to the requirements of § 42.22, the petition must set forth:

⁸ *Holmes v. New York City Housing Auth.*, 398 F.2d 262, 265 (2d Cir. 1968) (“It hardly need be said that the existence of an absolute and uncontrolled discretion in an agency of government vested with the administration of a vast program ... would be an intolerable invitation to abuse. For this reason alone due process requires that selections among applicants be made in accordance with ‘ascertainable standards.’”); *see also Moon v. U.S. Dep’t of Labor*, 727 F.2d 1315, 1318 (D.C. Cir. 1984) (“an agency must provide a reasoned explanation for its actions and articulate with some clarity the standards that governed its decision.”)

(a) *Grounds for standing and jurisdiction.* The petitioner must demonstrate that the patent for which review is sought is a covered business method patent, that the patent includes at least one claim that is not directed to a technological invention, and that the petitioner meets the eligibility requirements of § 42.302. The party challenging a patent under this Section shall have the burden of persuasion.

§ 42.304 should clearly specify the precise showings that are required. All of the regulations relating to petitions for review should clearly specify which showings must be directed to the patent *in gross* vs. showings that must be directed to specific challenged claims, and the like.

Although § 42.304 in the NPRM allocates the *burden of going forward* to the petitioner, it does not explicitly state that the petitioner must also bear the burden of *persuasion* that the subject patent is eligible for the Transitional Covered Business Methods review. IEEE-USA requests clarification that the burden of persuasion does not shift to the patentee. This burden of persuasion complies with the general principles in the Federal Rules of Evidence for civil cases.⁹

III. Almost all of the provisions of these regulations are “legislative” (as opposed to “interpretative”) and “procedural” (as opposed to “substantive”)

Obviously the USPTO intends these rules to be binding on the public. Characterizing them as “interpretative”¹⁰ is self-defeating, because interpretative rules are not binding on the public or on courts.¹¹ Most of the provisions of these five NPRM’s are “legislative” (as opposed to “interpretative”) and “procedural” (as opposed to “substantive”).

The USPTO continues to have difficulty properly classifying its regulations properly, and that leads the USPTO to omit required steps in the rule making process.¹² For example, the “Definition of Technological Invention” NPRM at page 7096 reads as follows:¹³

⁹ Fed.R.Ev. 301. See also *McCormick on Evidence*, Vol. 2. § 337 (4th Ed. 1992) (collecting cases and explaining that the party pleading a fact will have the burden of producing evidence *and* of persuading the fact-finder of its existence).

¹⁰ 5 U.S.C. § 553(b)(A) and (d)(2) of the Administrative Procedure Act uses the word “interpretative” rather than “interpretive.” We assume that the USPTO meant to track the statute.

¹¹ *Chrysler Corp. v. Brown*, 441 U.S. 281, 315 (1979) (after agency characterizes a rule as “interpretative,” Court holds “[A] court is not required to give effect to an interpretative regulation.”); *National Latino Media Coalition v. F.C.C.*, 816 F.2d 785, 788–89 (D.C. Cir. 1987) (“A valid legislative rule is binding upon all persons, and on the courts, to the same extent as a congressional statute. ... [A]n interpretative rule does not have the force of law and is not binding on anyone, including the courts....”); *Drake v. Honeywell, Inc.*, 797 F.2d 603,607 (8th Cir. 1986) (“Being in nature hortatory, rather than mandatory, interpretive rules can never be violated.”); *Cubanski v. Heckler*, 781 F.2d 1421, 1426 (9th Cir. 1986) (“an interpretive rule is one issued without delegated legislative power. ... Such rules are essentially hortatory and instructional in that they go more ‘to what the administrative officer thinks the statute or regulation means.’”).

The President has likewise instructed agencies that they cannot give determinative effect to their interpretative rules so as to “foreclose agency consideration of positions advanced by affected private parties.” Executive Office of the President, Office of Management and Budget, *Final Bulletin for Agency Good Guidance Practices*, OMB Memorandum M-07-07, <http://www.whitehouse.gov/omb/memoranda/fy2007/m07-07.pdf> § II(2)(h) (Jan. 18, 2007), 72 Fed. Reg. 3432 (Jan. 25, 2007).

¹² A good part of this difficulty arises because the statute itself is less than clear. “Interpretative” rules are mentioned in the Administrative Procedure Act, but never defined. Second, the opposite of an “interpretative” rule is not given a name in the statute. Older cases and treatises call noninterpretative rules either “legislative” or “substantive.” Interpretative rules (of agencies with substantive rule making authority) can be either procedural or substantive in character.

Rulemaking Considerations

A. *Administrative Procedure Act (APA)*: This notice proposes rules of practice concerning the procedure for requesting a covered business method patent review, and the trial process after initiation of such a review. The changes being proposed in this notice do not change the substantive criteria of patentability. These proposed changes involve interpretive rules. ...

Accordingly, prior notice and opportunity for public comment are not required pursuant to 5 U.S.C. 553(b) or (c) (or any other law), and thirty-day advance publication is not required pursuant to 5 U.S.C. 553(d) (or any other law). ...

Many concepts of administrative rule making become clearer if one understands that there are two separate classifications for rules, “substantive” vs. “procedural” and “legislative” vs. “interpretative.” That is, there are four categories, “substantive legislative,” “substantive interpretative,” “procedural legislative,” and “procedural interpretative.”

- One key characteristic that distinguishes a “legislative” rule from an “interpretative” rule is whether the rule is promulgated pursuant to a delegation of rulemaking authority from Congress (a “legislative” rule) or whether it merely “clarifies a preexisting statutory term” (an “interpretative” rule). A regulation promulgated pursuant to a delegation of regulatory authority from Congress will generally be classified as “legislative,” especially if promulgated by notice and comment.¹⁴ Here, Congress expressly delegated authority to define “technological invention,” and gave no definition at all that *could* be “interpreted.” The result of this rule making will be a “legislative” rule, not an interpretative rule.
- The USPTO erred in characterizing the definition as “interpretative” in another respect: interpretative rules are only “hortatory” and “lacking force of law.”¹⁵

The USPTO clearly intends both the “Changes to Implement Transitional Program for Covered Business Method Patents” and “Definition of Technological Invention” to be “procedural” and “legislative,” not “interpretative.”

When the USPTO mischaracterizes its regulations, it omits required rule making steps. When the USPTO skips steps, it runs the risk of having its regulations rendered invalid or unenforceable under the Administrative Procedure Act, Regulatory Flexibility Act, and other laws.

We will follow the recent trend of the courts, to use “legislative” as the opposite of “interpretative,” and “substantive” as the opposite of “procedural.”

¹³ This misclassification of regulations applies to both of the Transitional Covered Business Methods Review NPRMs, and also the Rules of Practice for Trials Before the Patent Trial and Appeal Board and Judicial Review of Patent Trial and Appeal Board Decisions, RIN 0651-AC70, 77 Fed. Reg. 6879 (Feb. 9, 2012) (“Umbrella rules”), and Changes to Implement Post-Grant Review Proceedings, RIN 0651-AC72, 77 Fed. Reg. 7060 (Feb. 10, 2012).

¹⁴ *Nigro v. Sullivan*, 40 F.3d 990, 996 (9th Cir 1994) (“These statutes delegate authority to the executive to establish substantive rules governing prisons. [These] regulations are therefore not interpretive. Rather, they are legislative.”); *see also Chevron U.S.A. Inc. v. NRDC*, 467 U.S. 837, 843–44 (1984) (where the Congress “has explicitly left a gap for the agency to fill, there is an express delegation of authority to the agency to elucidate a specific provision of the statute by regulation ... Such legislative regulations ...”).

¹⁵ See footnote 11.

IEEE-USA hopes that the USPTO will adopt our recommendations herein.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Keith Grzelak". The signature is fluid and cursive, with a long horizontal stroke extending to the left.

Keith Grzelak
Vice President for Government Relations
IEEE-USA