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Subject: Docket No. PTO-P-2010-0067

Please find attached my comments and petition in regard to the Agency's request for comments on Interim Guidance for Determining Subject Matter Eligibility for Process Claims in View of *Bilski v. Kappos*. 75(143) Fed. Reg. 43922 et seq. (July 27, 2010), <http://edocket.access.gpo.gov/2010/pdf/2010-18424.pdf>, USPTO docket No. PTO-P-2010-0067.

Best regards,

Paul E. (Marbux) Merrell, J.D.

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Universal Interoperability Council
<<http://www.universal-interop-council.org>>

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5 Petitioner, *pro se*

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12 BEFORE THE COMMISSIONER OF THE U.S. PATENT AND TRADEMARK OFFICE
13 AND THE U.S. SECRETARY OF COMMERCE

14
15 *In re:* Interim Guidance for Determining
16 Subject Matter Eligibility for Process
17 Claims in View of *Bilski v. Kappos*

No. PTO-P-2010-0067

COMMENTS AND
PETITION

18
19 1. This document is submitted in response to the U.S. Patent and Trademark
20 Office's ("USPTO") request for comments in the above captioned matter. *See* 75(143) *Fed.*
21 *Reg.* 43922 *et seq.* (July 27, 2010), <http://edocket.access.gpo.gov/2010/pdf/2010-18424.pdf>.

22
23 2. Pursuant to 5 U.S.C. § 553(e) and § 555(e),¹ this document is also a petition
24 directed to the Secretary of Commerce and to the Director of the USPTO to commence
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27 ¹ Respectively, http://www.law.cornell.edu/uscode/html/uscode05/usc_sec_05_00000553----000-.html
and http://www.law.cornell.edu/uscode/html/uscode05/usc_sec_05_00000555----000-.html.

1 substantive rule-making in regard to the patentability of software. The legal landscape
2 changed with the *Bilski* Court's decision and the public has a legitimate expectation that
3 the Agency will adjust its formal rules accordingly so the ground rules are clear.
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5 3. Under the requested rule, the agency would adopt a rule that software patents are
6 rebuttably presumed to be non-patentable *per se* on grounds of obviousness and prior art,
7 enabling a relaxed level of scrutiny for patentable subject matter examination for such
8 applications and authorizing their rejection on obviousness and prior art grounds without
9 consideration of other grounds for rejection.
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11 I. DEFINITIONS

12 4. The following terms shall be understood throughout this document to be
13 intended as having the definitions provided in this section.²
14

15 A. *Carrier* — a force of nature however manipulated for purposes of conveying or
16 storing information, but excluding any information so conveyed or stored.

17 B. *Information* — any and all assignments of discrete symbolic meaning to a
18 discrete manipulable physical state of a carrier or physical device, without regard
19 to the level of abstraction of such information. The term shall be understood in its
20 most inclusive sense and shall include, *inter alia*, all software and data.

21 C. *Physical device* — any hardware computer, peripheral device, or other physical
22 apparatus employing a carrier that alone or in combination performs, *inter alia*,
23 computation, information processing information storage, or communication
24 tasks, but excluding any information so computed, stored, or communicated.

25 ² The above definitions are adapted from "The Groklaw Definition", reprinted in P. Jones, A Groklaw
26 Suggestion on SW Patent Wording, *Groklaw.net* (1 June 2005), <http://www.groklaw.net/article.php?story=20050531195311724>. (Disclosure: although unattributed, Petitioner was one of the two
27 principal drafters of the Groklaw Definition.)

1
2 D. *Software* — any and all instruction sets for a physical device or for networked
3 physical devices but excluding all carriers or physical devices. The term shall
4 include, *inter alia*, any representation of software in any manipulable physical
5 state of a carrier or physical device.

6 E. *Software patent* — a patent whose claims read on software and in any way
7 preempt the legal right of a physical device owner to practice the development
8 and use of software exercising the full capabilities of any physical device.

9 II. USPTO'S 'COMPACT PROSECUTION' POLICY NEEDS BROADER REVISION
10 THROUGH FORMAL RULEMAKING

11 5. The above-captioned matter in effect proposes to partially amend the USPTO's
12 "compact prosecution" policy only insofar as that policy involves issues addressed by the
13 Court in *Bilski v. Kappos*, 561 U.S. ____ (2010), No. 08-964, [http://supreme.justia.com/us/561/
14 08-964/](http://supreme.justia.com/us/561/08-964/).

15 6. The agency's compact prosecution policy is a Kafka-esque³ example of wasted
16 government resources in the circumstance where the law unequivocally requires a patent
17 application to be rejected for any reason:
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19 Under the principles of *compact prosecution*, each claim should be reviewed for
20 compliance with every statutory requirement for patentability in the initial review
21 of the application, even if one or more claims are found to be deficient with
22 respect to the patent eligibility requirement of 35 U.S.C. 101. Thus, Office
23 personnel should state all non-cumulative reasons and bases for rejecting
24 claims in the first Office action.

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26
27 ³ F. Kafka, *The Castle* (Knopf, 1941).

1 USPTO, 75(143) *Fed. Reg.*, *supra*, at 43923 (italics added), *quoting without citation or*
2 *attribution*, the USPTO Manual of Patent Examining Procedure (“MPEP”) § 2106 (8th ed.,
3 last revised July 2010), http://www.uspto.gov/web/offices/pac/mpep/documents/2100_2106
4 [.htm#sect2106](http://www.uspto.gov/web/offices/pac/mpep/documents/2100_2106) (italics added).
5

6 7. In other words, the USPTO directs its examiners to evaluate every plausible
7 statutory grounds for rejection before an patent application can be denied. And as
8 graphically depicted in § 2106's flow chart, the mandated sequence of examination is to
9 first determine what the claimed invention is, then make a patentable subject matter
10 examination before proceeding to examine other factors such as the prior art, obviousness,
11 and utility.
12

13 8. The agency commendably admits that its compact prosecution policy does not
14 have the force and effect of law. *Ibid.* (“These Guidelines do not constitute substantive
15 rulemaking [sic] and hence do not have the force and effect of law ... [A]ny failure by
16 USPTO personnel to follow the Guidelines is neither appealable nor petitionable”). But
17 rather than engage in substantive rule-making responsive to the holdings in *Bilski*, the
18 agency now seeks public comment on a proposal to refine its compact prosecution policy
19 without the bother of a substantive rule-making procedure.
20
21

22 9. However, this is not a matter relating solely to the agency’s internal practices and
23 thus exempted from the requirement of formal rule-making. First, the agency’s relevant
24 procedures obviously impact patent applicant’s time-to-market delay for patent
25 processing. Second, the agency’s failure to protect the nation from junk patents is
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1 notorious and it is not a government secret that the scant time the agency's examiners are
2 given to examine patent application packages is a major contributing factor. Moreover, the
3 agency's has a constantly growing backlog of patent applications to process, with its
4 compact prosecution policy inflicting unnecessary further delay upon inventors who
5 submit valid applications and on public access to validly patented technology. The agency
6 has no examiner time to waste and its waste of examiners' time unmistakably impacts
7 more than the agency's internal practices.
8

9
10 10. That situation and fundamental principles of efficiency mandate that time and
11 resources not be wasted exploring alternative bases for a decision when any single factor
12 or set of factors is determinative. Decision-makers in and outside government typically
13 conduct a truncated review when determinative facts are obvious. For example, U.S. courts
14 routinely apply a relaxed level of scrutiny when a practice is unlawful *per se* and just as
15 routinely assume *arguendo* that some arguments are valid in order to rule on other
16 grounds against the party advancing the arguments. This is just common sense. *I.e.*, once
17 the patent examiner has determined what the claimed invention is, why waste examiner
18 time on a patentable subject matter determination if the application must in any event be
19 rejected on other grounds such as obviousness and prior art?
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22 11. The substantive rule-making this petition seeks would shortcut the need for any
23 extended patentable subject matter examination once it is determined that the claimed
24 invention apparently seeks to invade the non-patentable domain by preempting software
25 methodology. After the applicant responds to the issued presumption on non-patentability,
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1 the agency can then make a determination whether further examination is required to
2 reject the application and if not, summarily reject it.

3 *III. POINTS AND AUTHORITIES*

4
5 12. The requested relief is fully justified because software is, as a matter of
6 Constitutional law: [i] necessarily obvious; [ii] of necessity prior art; and [iii] a prohibited
7 government deprivation of liberty and taking of property interests without due process and
8 just compensation.

9
10 *A. Software Patents Violate the Constitution's Patent Clause*

11 13. The grant of software patents violates the U.S. Constitution's Patent Clause in no
12 small part because software only unites old elements with no change in their respective
13 functions, the binary register states of the physical device and the binary information
14 communicated via a carrier through physical devices' processes and between physical
15 devices. Moreover, it is impossible for software to cause any change unforeseen by the
16 prior art of the physical device. The net effect of software patents is only to subtract from
17 former resources freely available to skilled artisans, the full capabilities of the physical
18 device, in violation of the Patent Clause.

19
20
21 14. The U.S. Constitution provides in relevant part that:

22 Congress shall have power ... [t]o promote the progress of science and useful
23 arts, by securing for limited times to ... inventors the exclusive right to their
24 respective ... discoveries[.]

25 *Ibid.*, Article II § 8.

1 The function of a patent is to add to the sum of useful knowledge. Patents
2 cannot be sustained when, on the contrary, their effect is to subtract from
3 former resources freely available to skilled artisans. A patent for a combination
4 which only unites old elements with no change in their respective functions,
5 such as is presented here, obviously withdraws what already is known into the
6 field of its monopoly and diminishes the resources available to skillful men.
7 This patentee has added nothing to the total stock of knowledge, but has
8 merely brought together segments of prior art and claims them in congregation
9 as a monopoly.

8 *A. & P. Tea Co. v. Supermarket Corp.*, 340 U.S. 147, 153 (1950); <http://supreme.justia.com/us/340/147/case.html>; *reaffirmed*, *Graham v. John Deere*, 383 U.S. 1, 6 (1966) , <http://laws.findlaw.com/us/383/1.html#6> ("Congress may not authorize the issuance of patents whose
9 effects are to remove existent knowledge from the public domain, or to restrict free access
10 to materials already available"); *Bonito Boats v. Thunder Craft Boats*, 489 U.S. 141, 146
11 (1989), <http://supreme.justia.com/us/489/141/case.html#146> (same, quoting *John Deere*).⁴

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15 15. As explained by the Court in *KSR Int'l v. Teleflex*, 550 U.S. 398, ___ (2007), Slip
16 Op. at pp. 11-12, <http://supreme.justia.com/us/550/04-1350/opinion.html>:

17
18 For over a half century, the Court has held that a "patent for a combination
19 which only unites old elements with no change in their respective functions . . .
20 obviously withdraws what is already known into the field of its monopoly and
21 diminishes the resources available to skillful men."

22 (Citation to *A. & P. Tea Co.* omitted.)

23 16. The functioning of a physical device must be deemed known prior to software's
24 "invention" and creation, else software to be processed by the physical device could not be
25 written. For this reason, all software is unavoidably obvious in the constitutional sense.

26
27 ⁴ See also

1 The only “inventions” that a software author has available to work with are the known
2 functions and processes of the physical device. The software author can only create binary
3 notation that the physical device will process in a known way. Accordingly, software
4 patents can *only* “subtract from former resources freely available to skilled artisans ...
5 [combining] old elements with no change in their respective functions, ... obviously
6 withdraw[ing] what already is known into the field of its monopoly and diminish[ing] the
7 resources available to skillful men.” *A. & P. Tea Co., supra.; KSR Int’l, supra; see also ibid.:*

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10 This is a principal reason for declining to allow patents for what is obvious. The
11 combination of familiar elements according to known methods is likely to be
12 obvious when it does no more than yield predictable results.

13 Software can accomplish nothing more than to combine the familiar elements of the
14 physical device and yield predictable results. The capabilities of the physical device and
15 its required encoding is all that a software author has to work with.

16 17. Even if mistakenly regarded as non-obvious patentable subject matter, software
17 is also of necessity prior art. Even rudimentary understanding of computer science
18 instructs that it is physically impossible for software to be correctly processed by the
19 physical device if software — which is purely abstract information — included any
20 invention unforeseen by that device’s processes. Software is only information, only a
21 literary work, purely mental steps recorded in binary math notation.⁵

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24 18. There is no *process* in software in the statutory sense; there are only the
25 processes of the physical device or multiple connected devices. Software does not act

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27 ⁵ Were it otherwise, software could not lawfully be copyrighted.

1 upon the physical device; the physical device acts upon the software, changing its register
2 states to match the software's binary notation whilst processing the software and other
3 information (data) also recorded in binary notation.
4

5 19. There is no legally cognizable novelty in binary notation. Pingal was known to
6 have used binary notation *circa* 5th-2nd Centuries B.C. See B. Van Nooten. Binary
7 Numbers in Indian Antiquity, 21(1) *J. of Indian Philosophy*, p. 31 et seq. (1993), [http://www](http://www.springerlink.com/content/n45g2606g0k76858/)
8 [.springerlink.com/content/n45g2606g0k76858/](http://www.springerlink.com/content/n45g2606g0k76858/). Binary notation is very simply a numerical
9 system for recording (and processing) numbers having the base 2, marvelously suited to
10 the requirements of modern physical devices.
11

12 20. Even were one to erroneously postulate that software makes physical changes
13 rather than the physical device that processes the binary-encoded numbers comprising
14 software and other identically encoded information, by no stretch of the imagination could
15 software cause any useful change unforeseen by the prior art of the physical device. Of
16 necessity, the physical device's art is prior to that of the software the physical device
17 processes. The physical device's data registers each can have only one of two states at any
18 given time, various depicted by human beings as "1" or "0", ON or OFF, "low power" or
19 "high power", etc. And all that any software consists of is binary information written in a
20 form that the physical device can process. To the extent that there is *invention* involved in
21 the processing (within the sense of patent law), it lies in the physical device and pre- and
22 post-processing activities, not in the software. The physical device's art is of necessity
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1 prior to that of the software, else the physical device could not process the software. This is
2 a simple immutable Truth.

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4 21. The USPTO subtracting from the available vocabulary and arrangement of binary
5 notation available to skilled artisans through the grant of software patents makes no more
6 legal sense than granting patents on the words one may permissibly pencil on paper, the
7 notes that can be written in a musical score, or the arrangement of holes in a player piano
8 roll. In all such situations, the Agency grants a monopoly on wholly abstract arrangements
9 of symbols, on written *language*, on *information* itself.
10

11 22. Nothing in the Patent Clause can fairly be read as authorizing patents on
12 information itself. Instead, the Clause contemplates public disclosure of information about
13 an invention, allowing monopoly only on the *practice* of the invention, not on information
14 itself. Those who argue that recital of the involvement of a physical device or a process
15 somehow legitimizes software patents miss that the Clause nowhere authorizes patent
16 monopolies on information itself. To the contrary, the Clause authorizes only copyrights on
17 written information.
18

19 23. Subtracting software authors' vocabulary via the government's grant of a software
20 patent can not rationally be understood as promoting "the progress of ... useful arts."
21 Software patents only subtract from former resources freely available to skilled artisans" *A.*
22 *& P. Tea Co., supra.* Accordingly, applications for such patents must be rejected. And in the
23 interests of government efficiency and minimizing legal uncertainty among software
24 developers about what is lawful and not, such rejections should be made summarily.
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1 B. *The Patent Statutes Must be Construed within Constitutional Limits*

2 24. That the effect of software patents "is to subtract from former resources freely
3 available to skilled artisans," *A. & P. Tea Co., supra*, is made plain by examining software
4 patents in light of the U.S. Constitution's Fifth Amendment prohibition against deprivation
5 of liberty without due process and government taking of property without just
6 compensation. The U.S. Constitution's Fifth Amendment imposes significant restrictions on
7 the powers of the federal government:
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9 No person shall be deprived of life, liberty, or property, without due process of
10 law; nor shall private property be taken for public use, without just
11 compensation.

12 25. The public has a constitutionally protected liberty interest in the practice of
13 inventions that are already in the public domain and in the non-patentability of materials
14 already available to skilled artisans. *John Deere, supra* at 6 ("Congress may not authorize
15 the issuance of patents whose effects are to remove existent knowledge from the public
16 domain, or to restrict free access to materials already available"); *Trade-Mark Cases*, 100 U.
17 S. 82, 93-94 (1879), <http://supreme.justia.com/us/100/82/case.html#93> (invalidating statute
18 in part because Congress had exceeded the limits of its powers under the Patent and
19 Copyright Clause).
20
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22 Although the Court has not assumed to define "liberty" with any great precision,
23 that term is not confined to mere freedom from bodily restraint. Liberty under
24 law extends to the full range of conduct which the individual is free to pursue,
25 and it cannot be restricted except for a proper governmental objective.
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1 *Bolling v. Sharpe*, 347 US 497, 499-500 (1954), <http://supreme.justia.com/us/347/497/case>
2 [.html](#). There is no "proper governmental objective" in carving up what the Constitution
3 reserves to the People and bestowing it on would-be monopolists.
4

5 26. The *John Deere* Court explored in some detail the history of the Founders'
6 discontent that resulted in the Constitution's rejection of patents for any thing other than
7 inventions with a particular quality:

8 At the outset it must be remembered that the federal patent power stems from a
9 specific constitutional provision which authorizes the Congress "To promote the
10 Progress of ... useful Arts, by securing for limited Times to ... Inventors the
11 exclusive Right to their ... Discoveries." Art. I, 8, cl. 8. 1 The clause is both a grant
12 of power and a limitation. This qualified authority, unlike the power often
13 exercised in the sixteenth and seventeenth centuries by the English Crown, is
14 limited to the promotion of advances in the "useful arts." It was written against
15 the backdrop of the practices — eventually curtailed by the Statute of
16 Monopolies — of the Crown in granting monopolies to court favorites in goods or
17 businesses which had long before been enjoyed by the public. See Meinhardt,
18 *Inventions, Patents and Monopoly*, pp. 30-35 (London, 1946). *The Congress in the*
19 *exercise of the patent power may not overreach the restraints imposed by the*
20 *stated constitutional purpose. Nor may it enlarge the patent monopoly without*
21 *regard to the innovation, advancement or social benefit gained thereby. Moreover,*
22 *Congress may not authorize the issuance of patents whose effects are to remove*
23 *existent knowledge from the public domain, or to restrict free access to materials*
24 *already available. Innovation, advancement, and things which add to the sum of*
25 *useful knowledge are inherent requisites in a patent system which by*
26 *constitutional command must "promote the Progress of ... useful Arts." This is the*
27 *standard expressed in the Constitution and it may not be ignored. And it is in this*
28 *light that patent validity "requires reference to a standard written into the*
Constitution." A. & P. Tea Co. v. Supermarket Corp., supra, at 154 (concurring
opinion).

25 *Ibid.*, pp. 5-6 (italics added.)

1 27. The antagonism between software patents and the Fifth Amendment is perhaps
2 most vividly illustrated in the following only-somewhat hypothetical situation.⁶ Company X
3 sells a computer to Ms. Carol Customer. Later, Company X applies for and receives from
4 the USPTO a software patent restricting what Ms. Customer may lawfully do with her
5 computer without first obtaining a license or other grant of rights from the company.
6

7 28. The computer is Ms. Customer's chattel property and upon purchase she
8 acquired a bundle of legal rights in that property protected by the Fifth Amendment, such
9 as "the right to possess, use and dispose of it." *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986
10 (1984), <http://supreme.justia.com/us/467/986/case.html#1005>; *Bd. of Regents v. Roth*, 408
11 U.S. 564, 561-572 (1972), <http://supreme.justia.com/us/408/564/case.html> ("the property
12 interests protected by procedural due process extend well beyond actual ownership of real
13 estate, chattels, or money").
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16 29. One of those property rights (and liberty interests) sold to her by Company X was
17 the right to practice with her computer "any existent knowledge from the public domain
18 [along with] any materials already available", *John Deere, supra* at 6, and to do so without
19 concern that the USPTO would grant any "patent for a combination which only unites old
20 elements with no change in their respective functions." *KSR Int'l, supra; Bolling, supra*.
21

22 30. However, the USPTO's grant of the software patent to Company X subtracted from
23 Ms. Customer's Fifth Amendment liberty interest and property right, with both rights also
24
25

26 ⁶ The situation has undoubtedly recurred thousands of times. There are a multitude of companies that
27 both sell hardware and obtain software patents. *E.g.*, IBM, Oracle, Apple.

1 reserved to her by the Patent Clause, by abridging her right to practice the full functionality
2 of her purchase.

3
4 31. Critically, Company X from the moment of the consummated sale, as a seller,
5 retained no rights to restrict what Ms. Customer could do with the computer that is now
6 hers. It was a sale, not a license. Ms. Customer acquired clear legal title received from
7 Company X to practice the full capabilities of her computer. As a seller, Company X retains
8 no blocking rights.

9
10 32. In breach of its warranty of good title to transfer, Company X later applied for and
11 received from the USPTO a software patent restricting what Ms. Customer may do with her
12 computer.

13
14 33. On that set of facts, might the USPTO somehow argue in good faith that the rights
15 it subtracted from Ms. Customer's bundle of rights via the patent grant to Company X
16 included no property "use" right, *Ruckelshaus, supra*, after having granted a property right
17 to Company X allowing the company to exclude Ms. Customer's practice of the software
18 "invention?" Might a government lawyer still argue with a straight face that the identical
19 practice is simultaneously a property owned by Company X but not a property "use" right
20 when practiced by Ms. Customer, notwithstanding that Ms. Customer acquired her right
21 before the USPTO granted it to the very same company that had sold Ms. Customer her
22 right?
23

24
25 34. The USPTO lawyers might be tempted to opine that Ms. Customer's right to the
26 full use and enjoyment of her computer's capabilities is only a "unilateral expectation or an
27

1 abstract need" too attenuated from the specific claims of the patent to constitute a
2 "reasonable investment-backed expectation[.]" *Ruckelshaus, supra*, 467 U.S. 1005-1006.
3

4 35. But considering the massive flood of software patents the USPTO has unleashed
5 on the People in the last several years, that argument boils down to a claim that the
6 government may lawfully accomplish piecemeal that which it is forbidden to do in a single
7 act. One might as well argue that the Fifth Amendment prohibition against deprivation of
8 life without Due Process imposes no restriction on government power so long as the killing
9 of a citizen is accomplished by ten thousand cuts rather than by the hangman's noose. The
10 cumulative result is what matters. Dead is dead. A liberty extinguished is gone. And in
11 place of Ms. Customer's property right to the full use and enjoyment of her property, the
12 USPTO obviously expects her to either risk infringement or to spend virtually all of her
13 waking hours reading patent claims to determine whether the next line of code she wishes
14 to write will infringe a patent and if so, studying whether the claims are lawful. The Agency
15 very obviously does not expect her to spend her time advancing "the progress of science
16 and useful arts." U.S. Constitution, Article II, § 8, *supra*.
17
18

19 *IV. CONCLUSION*

20

21 36. Pre- or post-software processing activities may or may not be patentable but
22 software is not. Petitioner requests that the Secretary and the Commissioner commence
23 substantive rule-making as described above in order to carry out their constitutional duty.1
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26 RESPECTFULLY SUBMITTED this 27th day of September, 2010.
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