(The Unfortunate) Future of Software Patents Under 35 USC § 101 and § 112

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Introduction

After the Supreme Court's decision in *Bilski*[2], the viability of many business method patents was called in to question.[3] In *Bilski*, computer software was not at issue since the *Bilski* claims were method claims not tied to any particular computer algorithm.[4] Commentators split over whether *Bilski* had any real effect on software patents.[5] Two years later, however, the Supreme Court's decision in

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[2] *See* Bilski v. Kappos, 561 U.S. 593, 600, 613 (2010) (rejecting the Court of Appeal's test for patent eligibility under the Patent Act, 35 U.S.C. §101 but affirming the ultimate holding that the patent in question is invalid under § 101).

[3] *See Bilski*, 561 U.S. at 612 (bringing older patents' eligibility into question under the Patent Act as a result of the new eligibility test).

[4] *See Bilski*, 561 U.S. at 599 (describing petitioners' claims as requesting patent protection for a claimed invention that explains to participants in the energy market how they can protect or hedge against market price changes).

[5] *See* Daniel A. Tysver, *Are Software and Business Methods Still Patentable After the Bilski Decisions?*, BITLAW (2015), *archived at* http://perma.cc/3L6B-RA8P (articulating that many commentators believed the outcome of Bilski caused the age of software patents to be over).

Alice[6] renders the future of software patents somewhat bleak.[7] The prestigious ABA Journal, for example, published an article entitled "Business Method and Software Patents May Go through the Looking Glass after Alice Decision" (February 2015).[8]

Besides 35 USC § 101 subject matter issues, computer software patent claims have also become problematic under 35 USC § 112 during the last few years.[9] So, patent attorneys drafting patent applications for software will need to understand and keep abreast of both the § 101 and § 112 body of case law.[10]

My thesis (which I hate) is that software patent claims will have to be narrower than in the past or else they will be invalid under 35 U.S.C. § 101 and/or § 112. To evaluate this thesis, we will break the case law into five categories each of which we will explore in further detail in this article.

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[6] *See* Alice Corp. Pty. Ltd. v. CLS Bank Int'l*,* 134 S. Ct. 2347, 2352 (2014) (holding that generic computer implementation does not transform an abstract idea into a scheme that is patent eligible).

[7] *See* Julia Powles, *Alice v. CLS Bank: United States Supreme Court Establishes General Patentability Test*, WIPO MAG. (Aug. 2014), *archived at* http://perma.cc/7BBG-L29H (demonstrating the complexity of determining whether or not a generic idea is patentable based on corresponding implementations of the idea).

[8] *See* Steven Seidenberg, *Business-method and software patents may go through the looking glass after Alice decision*, ABA J. (Feb. 2015), *archived at* http://perma.cc/3XCB-3KLP (reiterating that as a result of the Alice decision numerous software and business method patent applications were denied patent protection).

[9] *See* Ron Laurie, *A Rush to Judgment on Patentable Subject Matter*, IPWATCHDOG (Nov. 21, 2014), *archived at* http://perma.cc/99NW-S9JB (discussing not only issues associated with 35 U.S.C. § 101, but addressing issues that arise with simply filing a patent application under 35 U.S.C. § 112, Application for Patent).

[10] *See id.* (listing the procedural issues pertaining to patent applications).

I.

Does the software patent claim recite an abstract idea? If yes, the claim is broad but probably invalid.[11] If no, the claim is valid but probably narrow.[12]

Alice basically held that if a claim broadly recites an abstract idea, then the claim is invalid under 35 U.S.C. § 101.[13] In *Alice*, the claim at issue covered the abstract idea of an "intermediated settlement", i.e., the use of the third party to mitigate settlement risk.[14] This abstract idea was implemented using well understood, routine, and conventional computer functions previously known to the industry.[15] "In short, each step does no more than require a generic computer to perform generic computer functions."[16]

In other words, if a claim recites only conventional, well understood, routine, or generic computer functions implementing an abstract idea, then the claim is invalid.[17]

Conversely then, a valid patent claim for software must be limited to covering either 1) a concrete idea or 2) an abstract idea carried out using non-conventional and specific computer instructions.[18] Either way, a valid claim under 35 U.S.C. § 101 is narrow.[19] Hence,

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[11] *See Alice*, 134 S. Ct. at 2360 (holding that claims that are too abstract cannot be considered valid).

[12] *See id.* (reasoning that the broader the claim, the less likely it is to be valid).

[13] *See id.* at 2353 (suggesting that "a court must first 'identif[y] the abstract idea represented in the claim,' and then determine 'whether the balance of the claim adds significantly more'").

[14] *See id.* at 2356 (describing a method whereby a third party is used as an intermediary to mitigate settlement risk).

[15] *See id.* at 2359 (giving examples of computer functions that are routine and conventional).

[16] *See id.* (highlighting that generic computer functions are used in intermediated settlement).

[17] *See Alice*, 134 S. Ct. at 2360 (maintaining that unspecified computer functions are unlikely to be valid claims).

[18] *See id.* (providing that valid patent claims should be structured in one of two ways).

[19] *See id.* at 2354 (referencing an exception to 35 U.S.C. § 101 rejecting abstract claims).

broad computer software claims are probably invalid post *Alice* and only narrower claims will be held valid.[20]

Citing *Alice*, several Federal Circuit cases have further illuminated the fact that only narrower software claims will now survive the § 101 hurdle.[21] In *Planet Bingo*,[22] the abstract idea at issue related to solving a tampering problem and minimizing other security risks during bingo ticket purchases carried out via a computer program employing purely conventional and generic functions.[23]

In *Ultramercial*,[24] the abstract idea at issue was offering media content in exchange for viewing an advertisement[25] and the claimed sequence of steps comprised only conventional steps specified at a high level of generality and added nothing of practical significance to the underlying abstract idea.[26]

In both *Planet Bingo* and *Ultramerical*, such abstract ideas broadly claimed were held invalid.[27]

DDR Holdings is the only post *Alice* Federal Circuit case where a software claim survived the § 101 analysis.[28] The abstract idea at issue (making two web pages look the same) was protected by narrower claims, which specified how certain interactions with the internet are manipulated to yield a desired result that overrides the

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[20] *See* Laurie, *supra* note 9 (explaining that an abstract claim has no practical application).

[21] *See* Laurie, *supra* note 9 (discussing the courts' ever-developing opinions on the matter of software claims).

[22] *See* Planet Bingo, LLC v. VKGS LLC, 576 Fed. Appx. 1005, 1006 (Fed. Cir. 2014) (addressing patent infringement in relation to the management of bingo games).

[23] *See id.* at 1008 (referencing *Alice* in its holding regarding abstract claims).

[24] *See* Ultramercial, Inc. v. Hulu, LLC, 772 F.3d 709, 711 (Fed. Cir. 2014) (discussing patent infringement for monetizing and distributing copyrighted products over the Internet).

[25] *See id.* at 712 (introducing the issue relating to the purchase of copyrighted content for advertisement purposes).

[26] *See id.* at 715-16 (suggesting that additional steps did little to bolster a patent claim's validity).

[27] *See Planet Bingo*, *LLC,* 576 Fed. Appx. at 1008 (reiterating the idea that general claims will not be found as valid); *see also Ultramercial, Inc.,* 772 F.3d at 723 (inferring the importance of particularity in patent claims).

[28] *See* DDR Holdings, LLC v. Hotels.com, L.P., 773 F.3d 1245, 1265 (Fed. Cir. 2014) (Mayer, J., dissenting) (agreeing with the majority's justification for the plaintiff's claims because of their narrow scope).

routine and conventional sequence of events ordinarily triggered by the click of a hyper-link.[29]

Thus, broad claims reciting an abstract idea are likely invalid and only narrower claims, drawn to concrete ideas or abstract ideas carried out using specific, non-conventional steps, will likely be valid.[30]

II.

Is the claim broad and have all implementations of software been described? If not, then the claim is probably invalid.[31]

It is not only § 101 that disfavors broad software patent claims: § 112 has been used to invalidate them as well.[32] As a shorthand, my hypothesis is this: if the software claim is broad enough to cover versions A and B of the software at issue, but only version A is enabled, then claim is invalid.

For example, in the *Lizard Tech* case,[33] the software claims at issue recited a seamless discrete wavelength transform (DWT) based compression process.[34] There were two different ways to create a seamless DWT but the specification at issue described only one way.[35] As a result the claim was held invalid under 35 USC § 112:

> [A] patentee cannot always satisfy the requirements of § 112, in supporting expansive claim language, merely by clearly describing one embodiment of the thing

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[29] *See id.* at 1257 (majority opinion) (providing an example of a narrow claim that was found valid).

[30] *See id.* at 1259 (summarizing case precedent to show particularity survives patent eligibility scrutiny).

[31] *See* LizardTech, Inc. v. Earth Resource Mapping, Inc., 424 F.3d 1336, 1345 (Fed. Cir. 2005) (explaining how having only one implementation of software will not necessarily invalidate it).

[32] *See* 35 U.S.C. § 112 (2012) (stating that a proper software patent claim requires detailed descriptions of the invention itself and concise terms that allow the person to understand it).

[33] *See LizardTech, Inc.,* 424 F.3d at 1337 (elucidating a technical term which refers to digital image compression).

[34] *See id.* (highlighting that DWT is the most useful type of wavelet transformation).

[35] *See id.* at 1339 (focusing on the '835 patent and its effect on DWT coefficients).

> claimed. For that reason, we hold that the description
> of one method for creating a seamless DWT does not
> entitle the inventor… to claim any and all means for
> achieving that objective.[36]

In *Sitrick v. Dreamworks LLC,*[37] the software claims at issue covered a way to incorporate a person's audio and/or image data into both video games and movies.[38] The specification was enabled for video games but not for movies.[39] In invalidity the claims, the court held:

> Because the asserted claims are broad enough to cover
> both movies and video games, the patents must enable
> both embodiments. Even if the claims are enabled
> with respect to video games – an issue we need not
> decide – the claims are not enabled if the patents are
> not also enabled for movies.[40]

So, narrow software claims, for example a claim covering only version A of the computer software, may be valid (where version A of the computer software is enabled) but broader claims covering other possible versions of the software which are not enabled will likely be held invalid.[41] This result is highly problematic especially for computer software claims since, for any computer software algorithm, there are likely numerous ways to draft the appropriate computer instructions.[42] And, no matter how many versions of the instructions are enabled in a given patent, you can be sure a defendant

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[36] *See id.* at 1346 (holding that a broad description does not suffice).

[37] *See* Sitrick v. Dreamworks LLC, 516 F.3d 993, 995 (2008) (discussing the use of a product called ReVoice Studio).

[38] *See id.* at 996 (holding that the patent only covers what is stated within it).

[39] *See id.* at 1000 (indicating the claims must be enabled for both video games and movies).

[40] *See id.* (holding that the issue is general enough to protect the plaintiff's rights).

[41] *See* ARLENE P. NEAL, AM. INTELLECTUAL PROP. LAW ASS'N, FUNCTIONAL CLAIMS AND THE REQUIRED DISCLOSURE BEFORE AND AFTER THE AIA 9 (2013) (providing an example of broad patent claims and how they are typically held to be invalid).

[42] *See id.* at 8-9 (discussing the difficulty in attempting to patent algorithms).

competitor will be able to implement computer instructions which are not enabled in the patent but still carry out the same basic functionality.[43] Broad software claims covering different possible implementations are thus likely invalid unless all the implementations are enabled which is probably impossible.[44]

III.

Does the claim employ 35 USC § 112(f) and is the disclosure broad?[45] If so, the claim is probably invalid.[46]

The other way a software claim can be broad but invalid is when the claim is subject to 35 USC § 112(f) (previously § 112, ¶ 6), i.e., the claim is drafted in a means plus function format.[47]

In several cases, a claim subject to § 112(f) was held invalid when the disclosure failed to disclose specific computer instructions for carrying out the claimed system. In the *Ergo Licensing* case,[48] for example, the claim at issue recited "programmable control means" for controlling a "fluid flow adjustment means".[49] In the specification, there was very little disclosure about the "programmable control means" or how it functioned.[50] As a result, the claim was held invalid.[51] In *ePlus*,[52] the claim at issue recited means for processing a

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[43] *See id.* at 1-13 (arguing that the broad and complex language of computers creates issues when attempting to establish specific patents).

[44] *See id.* (stating that technology as it stands is not developed enough to completely streamline the process of patenting).

[45] *See* Ergo Licensing, LLC v. CareFusion 303, Inc., 673 F.3d 1361 (Fed. Cir. 2012) (discussing whether the decision of the district court, in which language governed by the statute, should be upheld for "failure to disclose corresponding structure").

[46] *See id.* (holding that the court affirmed the decision of the district court).

[47] *See* 35 U.S.C. § 112(f) (2012) (elucidating the difference between a claim for combination and a patent becoming too broad).

[48] *See Ergo Licensing, LLC*, 673 F.3d at 1362 (2012) (specifying the patent at issue as the "412" patent).

[49] *See id.* (examining a patent for an infusion system controlled by a computerized meter).

[50] *See id.* at 1363-64 (stating that the term "control means" is too vague).

[51] *See id.* at 1365 (holding that the district court was correct in determining that more specific language was required to "disclose corresponding structure").

requisition to generate a purchase order.[53] There was very little disclosure concerning the "means for processing" and, as a result, the claim was held invalid.[54] In *Noah Systems v. Intuit, Inc.*,[55] the claim recited means for providing access to a file to enter, delete, and otherwise manipulate data.[56] The specification included flow charts and a disclosure for an "access means" but there was not much disclosure concerning how to enter, delete or otherwise manipulate the data.[57] As a result, the claim was held invalid.[58] Finally, in *Aristocrat Technologies v. International Game Technology*,[59] the claim at issue recited "game control means"[60] but the specification only disclosed a standard microprocessor "with appropriate programming".[61] As a result, the claim was held invalid.[62] Accordingly, a broad software patent claim supported by a broad specification is probably invalid under 35 USC § 112(f).[63] The reason?

> An applicant may express an element of a claim "as a
> means or step for performing a specified function . . .

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[52] *See* ePlus, Inc. v. Lawson Software, Inc., 700 F.3d 509 (Fed. Cir. 2012) (focusing on an appeal of an infringement suit).

[53] *See id.* at 512 (describing the claimed invention of a single requisition divided into multiple purchase orders as the basis of the patent infringement claim).

[54] *See id.* at 518-20 (finding the claim invalid due to a failure to disclose sufficient structure for the "means for processing" limitation).

[55] *See* Noah Systems, Inc. v. Intuit, Inc., 675 F.3d 1302 (Fed. Cir. 2012) (regarding an action stemming from alleged infringement of a patent for an automated accounting system).

[56] *See id.* at 1307 (setting out the claims of patent infringement based on the "access means" limitation).

[57] *See id.* (explaining that the special master found the "access means" to be indefinite for a failure to disclose an algorithm for carrying out the limitation).

[58] *See id.* at 1313-19 (holding the asserted claims invalid as indefinite).

[59] Aristocrat Tech. Austl. Pty Ltd. v. Int'l Game Tech., 521 F.3d 1328,1330 (Fed. Cir. 2008).

[60] *See id.* at 1331 (defining the functions of the "game control means").

[61] *See id.* at 1334 (analyzing the methodology of applying "appropriate programming" to standard microprocessors).

[62] *See id.* at 1338 (denying the claim for lacking "sufficient disclosure of structure").

[63] *See Ergo Licensing, LLC,* 673 F.3d at 1365 (affirming the lower court's decision for lack of a step-by-step process that provides greater specificity).

and such claim shall be construed to cover the corre-
sponding structure . . . described in the specification
and equivalents thereof." 35 U.S.C. § 112 ¶ 6. In ex-
change for the ability to use a generic means expres-
sion for a claim limitation, "the applicant must indi-
cate in the specification what structure constitutes the
means." <u>Biomedino, LLC v. Waters Techs. Corp., 490
F.3d 946, 948 (Fed.Cir. 2007)</u>. Such structure "must
be clearly linked or associated with the claimed func-
tion." <u>Med. Instrumentation & Diagnostics Corp. v.
Elekta AB, 344 F.3d 1205, 1219 (Fed.Cir.2003)</u>. Fail-
ure to specify the corresponding structure in the speci-
fication amounts to impermissible pure functional
claiming. Id. at 1211. "Although [§ 112 ¶ 6] statutorily
provides that one may use means-plus-function lan-
guage in a claim, one is still subject to the requirement
that a claim `particularly point out and distinctly
claim' the invention." <u>In re Donaldson Co., 16 F.3d
1189, 1195 (Fed. Cir.1994) (en banc)</u>. If an applicant
does not disclose structure for a means-plus-function
term, the claim is indefinite.[64]

If special programming is required for a general-
purpose computer to perform the corresponding
claimed function, then the default rule requiring dis-
closure of an algorithm applies. It is only in the rare
circumstances where any general-purpose computer
without any special programming can perform the
function that an algorithm need not be disclosed.[65]

IV.

Does the claim employ 35 USC § 112(f) and is the disclosure
specific? If so, the claim is valid but probably narrow.[66]

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[64] *Id.* at 1363.

[65] *Id.* at 1365.

[66] *See In re* Alappat, 33 F.3d 1526, 1582 (Fed. Cir. 1994) (Rader, J., concurring)
(analyzing Supreme Court holdings on the narrow definition of "algorithm").

Conversely, a software claim can be valid when subject to § 112(f) if the specification recites sufficient detail about the algorithm(s).[67] But, the claim is likely then narrower.[68] For example, in *In re Alappat*,[69] the claim recited an anti-aliasing system for an oscilloscope screen.[70] The claim was subject to § 112(f),[71] was held valid under § 101,[72] but was limited to the specific structure disclosed in the patent specification[73] as opposed to "any and every means for performing the particular function recited" which was how the Board had previously ruled.[74] In *WMS Gaming, Inc. v. International Game Technology*,[75] the claim at issue recited means for assigning a number representing angular positions of the reel in a slot machine.[76] This claim language was subject to § 112(f)[77] and then limited to the specific algorithm of Fig. 6 in the patent specification:

> In a means plus function claim in which the disclosed structure is a computer or microprocessor programmed to carry out an algorithm, the disclosed structure is not the general purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm.[78]

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[67] *See id.* at 1539-40 (majority opinion) (describing how a recitation of a mathematical algorithm may be sufficient if it includes a step-by-step process).

[68] *See id.* at 1582 (Rader J., concurring) (highlighting the Supreme Court's preference for narrowly drawn claims).

[69] *In re* Alappat, 33 F.3d 1526 (Fed. Cir. 1994).

[70] *See id.* 1557-58 (Archer, J., concurring in part and dissenting in part) (describing the function of the anti-aliasing system).

[71] *See id.* at 1540 (majority opinion) (finding that the Board majority erred by failing to apply § 112(f) to the anti-aliasing system for an oscilloscope screen).

[72] *See id.* at 1542 (applying the claim to § 101 subject matter).

[73] *See id.* at 1539 (describing the limiting effect of the specifications in Alappat's application).

[74] *See id.* (describing the manner in which the court ruled).

[75] WMS Gaming, Inc. v. Int'l Game Tech., 184 F.3d 1339, 1342 (Fed. Cir. 1999).

[76] *See id.* at 1346-47 (setting out the claim in respect to the angular rotational position).

[77] *See id.* at 1347 (indicating that the claim is subject to § 112(f)).

[78] *See id.* at 1349.

Accordingly, § 112(f) claims supported by a broad disclosure are invalid (see Category III above) and, pursuant to *Alappat* and *WMS Gaming,* § 112(f) claims supporting a specific algorithm will be limited to that algorithm.[79]

It might be possible to disclose numerous algorithms for a given claim element subject to § 112(f), but a defendant could probably still design an algorithm not disclosed in the specification for accomplishing the same basic task and that algorithm would not be covered by the claim.[80]

V.

Will the claim be subject to a 35 USC § 112(f) type construction?

If so, then per the prior two categories, the claim is either broad and invalid or valid but narrow.

Since, under § 112(f), if the claim is broad and the specific algorithm is not disclosed then the claim is invalid (Category III) and, when the specific algorithm is disclosed, then the claim is narrow because it is limited to the specific algorithm disclosed (Category IV), then it shouldn't take too long to reach the obvious conclusion that we don't want our claims to be subject to § 112(f).[81]

It might not matter. In *Inventio AG v. Thyssenkrupp Elevator Americas Corp.,*[82] the claims at issue concerned an elevator control system where the destination floor could be chosen at the boarding floor outside the elevator.[83] The software claims recited a "moderniz-

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[79] *See id.* (reiterating that statute 35 U.S.C. § 112(f) which only covers specific algorithms and not the entire software program).

[80] *See* 35 U.S.C. § 112(f) (indicating that there are ways around the specifications for algorithms under § 112(f)).

[81] *See supra* Category III. (summarizing that a broad patent claim is considered invalid under 35 U.S.C. § 112(f)); *see also supra* Category IV. (noting that specific algorithm claims can be valid but are narrower under 35 U.S.C. § 112(f)).

[82] *See* Inventio AG v. Thyssenkrupp Elevator Ams. Corp., 649 F.3d 1350 (2011) (holding that under 35 U.S.C. § 112 the terms "modernizing device" and "computing unit" were means-plus-function limitations).

[83] *See id.* at 1353 (discussing the background of the case and the product in question which gave rise to the claim).

ing device" and a "computing unit."[84] The Federal Circuit held that the claims were not subject to § 112(f) since the specification fully disclosed the modernizing device and the computing unit.[85] The problem, then, is that the claims might then be limited to the specific modernizing device and computing unit disclosed in the specification just like if the claims were subject to § 112(f).[86] If the claims are not so limited, then don't we have the same undue breadth problem under category II above rendering the claims invalid?[87]

Thus, even software claims not subject to § 112(f) might be narrower since they may be limited by the disclosure.[88] And if the claims are not so limited to the specific algorithms of the specification, then there is a potential invalidity problem.[89]

It also might not matter if you try and avoid § 112(f) for another reason: there is a real push to render *all* software claims subject to § 112(f) in which case they will be invalid if the disclosure is broad and valid, but narrower if the disclosure is specific.[90] For example, in *Robert Bosch LLC v. Snap-On, Inc.*,[91] a claim which recited "a program recognition device" and a "program loading device"[92]

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[84] *See id.* at 1354 (depicting how the "computing unit" and the "modernizing device" are both connected to the elevators control system).

[85] *See id.* at 1355 (addressing the court's reasoning in finding that failure to fully disclose terms of the invention prevents patent protection under § 112).

[86] *See* Nicholas R. Mattingly, *Avoiding Invocation of Functional Claim Language in Computer-Implemented Inventions*, IPWATCHDOG (June 18, 2015), *archived at* http://perma.cc/R5B6-KUBD (pointing out the use of functional language when describing the terms of the invention may lead to the invention being classified as indefinite, but still being subject to the limitations of § 112).

[87] *See supra* Category II. (discussing that 35 U.S.C. § 112 often invalidates broad software patent claims that do not specify all software implementations).

[88] *See* Mattingly, *supra* note 86 (cautioning that use of functional language in regards to software patents can subject the patentee to the limitations under § 112(f)).

[89] *See* Mattingly, *supra* note 86 (warning against the possibility of invalidation due to lack of limitations for specific algorithms are not protected by § 112(f)).

[90] *See* Jason Rantanen, *How Will Nautilus Affect Indefiniteness at the PTO?*, PATENTLYO (June 5, 2014), *archived at* http://perma.cc/TQC8-C738 (clarifying that there is a push to subject all software patents to the specific disclosures found in § 112(f)).

[91] Robert Bosch, LLC v. Snap-On, Inc., 769 F.3d 1094 (Fed. Cir. 2014).

[92] *See id.* at 1096 (setting out the terms of the sole independent claim of the patent).

were held to invoke § 112(f)[93] (and then were held indefinite because there was no structure in the specification corresponding to the "means plus function" limitations of the claims).[94]

There are also several PTAB decisions to the effect that claim language such as "a processor" is subject to § 112(f).[95] Further, some scholars have argued that *all* software patent claims should be subject to § 112(f).[96]

Conclusion

The cases discussed herein from all five categories result in my unfortunate thesis: software patent claims will have to be narrower than in the past or else they will be invalid.[97] Proving this thesis will require a Federal Circuit or Supreme Court case with the following facts: the claim at issue would recite a processor executing a program including instructions for carrying out function A and instructions for carrying out function B. The specification would include code, pseudocode, or an otherwise sufficient disclosure for both functions A and B. The defendant at issue would use *different* code that carries out the same two functions A and B.

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[93] *See id.* at 1099-01 (explaining how both program loading device and program recognition device overcome the presumption of contradicting § 112); *see also* Williamson v. Citrix Online, LLC, 770 F.3d 1371, 1382 (Fed. Cir. 2014) (Reyna, J., dissenting) (drawing attention to the majority opinion that the term "distributed learning control module" was not a means-plus-function term).

[94] *See Robert Bosch, LLC*, 769 F.3d at 1101-02 (holding that the terms "program loading device" and "program recognition device" are indefinite and the specification fails to provide adequate guidance as to their meaning).

[95] *See Ex parte* Smith, No. 2012-007631 (P.T.A.B. Mar. 14, 2013) (deciding that a processor is construed as a "means-plus-function" limitation, which is subject to § 112); *see also Ex parte* Lakkala, No. 2011-001526 (P.T.A.B. Mar. 13, 2013) (construing a processor as performing various functions); *Ex parte* Erol, No. 2011-001143 (P.T.A.B. Mar. 13, 2013) (reiterating that the processor in question invokes § 112); *Ex parte* Cadarso, No. 2010-008797 (P.T.A.B. Apr. 26, 2013) (concluding that the corresponding structure must include an algorithm to transform the general purpose of the processor to comply with § 112).

[96] *See* Mark A. Lemley, *Software Patents and the Return of Functional Claiming*, 2013 WIS. L. REV. 905, 962 (2013) (arguing that software patentees will benefit from § 112 in their patent claims).

[97] *See Alice*, 134 S. Ct. at 2360 (claiming that narrow patent claims will be considered valid).

The first issue of interest is whether or not the court would subject the claim to § 112(f).[98] If the court does subject the claim to § 112(f), then the case is analogous to the *WMS Gaming* case, discussed above, and all the problems associated with claims subject to § 112(f) come into play.[99] So, the more interesting conclusion would be the court not subjecting the claims to § 112(f) and further the court deciding the claims are patent eligible under 35 USC § 101.[100] Then, the ruling will be forced to concern infringement (both literal and under the doctrine of equivalents) and undue breadth.[101] If I am right, the claim will be valid under § 101, valid under § 112, but the claim will be narrowly construed and thus there will be no infringement.[102]

If I am wrong, the claim will be valid, broadly construed, and infringed.[103] I hope I am wrong.

The good news is that the Supreme Court did not outlaw all business method patents in *Bilski*,[104] and in *Alice* the Court stated "there is no dispute . . . that many computer implemented claims are formally addressed to patent-eligible subject matter."[105] Still, under both § 101 and § 112, software claims may have to be crafted more carefully to address an invalidity attack.[106]

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[98] *See* 35 U.S.C. § 112 (describing the patent procedure that a court would use to determine claim eligibility).

[99] *See WMS Gaming, Inc.,* 184 F.3d at 1348 (listing the problems in associating a claim with § 112(f) to include structure, material, or acts disclosed in the specifications).

[100] *See* 35 U.S.C. § 101 (2012) (explaining how an individual can receive a patent, subject to certain conditions and requirements).

[101] *See* Laurie, *supra* note 9 (suggesting the importance of a substantive holding due to potential infringement and breadth issues).

[102] *See Planet Bingo, LLC*, 576 Fed. Appx. at 1006 (holding that the straightforward application and narrow scope of the patent claim invalidates the infringement action).

[103] *See id.* at 1006-07 (indicating the circumstances under which the claim could be considered valid).

[104] *See Bilski*, 561 U.S. at 607 (arguing that business method patents fall within the limits of § 101).

[105] *Alice*, 134 S. Ct. at 2358-59.

[106] *See id.* at 2354 (stating "abstract ideas are not patentable" based on § 101); *see also Planet Bingo, LLC*, 576 Fed. Appx. at 1007 (adopting the reasoning in *Alice Corp. Pty. Ltd.*); *WMS Gaming, Inc.*, 184 F.3d at 1348 (using § 112 to demonstrate similar logic to *Alice Corp. Pty. Ltd.*).

The other good news is that patent attorneys know well how to craft claims just "narrow" enough to overcome §102 and §103 prior art and still broad enough to adequately protect their client's inventions. From now on, patent attorneys are going to have to also learn how to craft claims "just narrow enough" to overcome § 101 and § 112 issues and yet still adequately protect a given invention.