

**TOP TEN § 101 PATENT-ELIGIBILITY PATENT DRAFTING RULES:  
... AND AN *ENFISH* SIDESHOW**

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\*Except for the opening section, “Enfish! at page 3 and the “The Bahr Memorandum (May 19, 2016), the text, here, is a *verbatim* reproduction of the author’s monograph THE SEQUENOM PATENT ELIGIBILITY CHALLENGE, § 1[c], *Crafting Patent Applications for Allowance “Tomorrow”*, The Naples Roundtable (Jan. 4, 2016), available at <https://www.thenaplesroundtable.org/wp-content/uploads/2015/09/The-Sequiom-Patent-Eligibility-Challenge-by-Harold-C.-Wegner.pdf>. This paper represents the views of the writer without sponsorship from any other person or organization.

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## **ENFISH! AN ADDENDUM**

*Enfish, LLC v. Microsoft Corp.*, \_\_\_ F.3d \_\_\_, \_\_\_, slip op. at 9-11 (Fed. Cir. May 12, 2016)(Hughes, J.), has generated a false hope that the Federal Circuit was straightening out the law of patent-eligibility. To see what the excitement is all about, one must read the opinion, carefully, as excerpted below. If anyone has any doubt concerning the clear guidance *vel non* from this opinion, one need only study the guidance issued by the Patent Office on May 19, 2016 (*attached* at the end of this paper).

*Enfish* is but a sideshow to the main event, viz., the possibility that the Supreme Court may grant *certiorari* this June in *Sequenom, Inc. v. Ariosa Diagnostics, Inc.*, Supreme Court No. 15-1182, *proceedings below sub nom Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371 (Fed. Cir. 2015). (Or, if *certiorari* is denied, what the Federal Circuit will do to undo the impossible situation created by the *Ariosa* opinion.)

### **From the *Enfish* opinion, slip op. at 9-11:**

Section 101 provides that a patent may be obtained for "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." 35 U.S.C. § 101. This court, as well as the Supreme Court, has long grappled with the exception that "[l]aws of nature, natural phenomena, and abstract ideas are not patentable." *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013) (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293 (2012)). Supreme Court precedent instructs us to "first determine whether the claims at issue are directed to a patent-ineligible concept." *Alice Corp. Pty Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2355 (2014). If this threshold determination is met, we move to the second step of the inquiry and "consider the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *Id.* (quoting *Mayo*, 132 S. Ct. at 1298, 1297).

The Supreme Court has not established a definitive rule to determine what constitutes an "abstract idea" sufficient to satisfy the first step of the *Mayo/Alice* inquiry. See *id.* at 2357. Rather, both this court and the Supreme Court have found it sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases.

"[The Court] need not labor to delimit the precise contours of the 'abstract ideas' category in this case. It is enough to recognize that there [\*10] is no meaningful distinction between the concept of risk hedging in *Bilski* and the concept of intermediated settlement at issue here." *Alice*, 134 S. Ct. at 2357; see also *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362 (Fed. Cir. 2015)]. For instance, fundamental economic and conventional business practices are often found to be abstract ideas, even if performed on a computer. See, e.g., *OIP Techs.*, 788 F.3d at 1362-63.

In setting up the two-stage *Mayo/Alice* inquiry, the Supreme Court has declared: "We must first determine whether the claims at issue are directed to a patent-ineligible concept." *Alice*, 134 S. Ct. at 2355. That formulation plainly contemplates that the first step of the inquiry is a meaningful one, i.e., that a substantial class of claims are *not* directed to a patent-ineligible concept. The "directed to" inquiry, therefore, cannot simply ask whether the claims *involve* a patent-ineligible concept, because essentially every routinely patent-eligible claim involving physical products and actions *involves* a law of nature and/or natural phenomenon—after all, they take place in the physical world. See *Mayo*, 132 S. Ct. at 1293 ("For all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.") Rather, the "directed to" inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether "their character as a whole is directed to excluded subject matter." *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015); see *Genetic Techs. Ltd. v. Merial L.L.C.*, 2016 WL 1393573, at \*5 (Fed. Cir. 2016) (inquiring into "the focus of the claimed advance over the prior art").

The Supreme Court has suggested that claims "pur-port[ing] to improve the functioning of the computer itself," or "improv[ing] an existing technological process" might not succumb to the abstract idea exception. See *Alice*, 134 S. Ct. at 2358-59. While it is true that the Court discussed improvements to computer-related technology in the second step of its analysis in *Alice*, see *id.* at [\*11] 2355-60, that was because the Court did not need to discuss the first step of its analysis at any considerable length, see *id.* at 2356 ("Petitioner acknowledges that its claims describe intermediate settlement . . . ."), *id.* at 2357.

We do not read *Alice* to broadly hold that all improvements in computer-related technology are inherently abstract and, therefore, must

be considered at step two. Indeed, some improvements in computer-related technology when appropriately claimed are undoubtedly not abstract, such as a chip architecture, an LED display, and the like. Nor do we think that claims directed to software, as opposed to hardware, are inherently abstract and therefore only properly analyzed at the second step of the *Alice* analysis. Software can make non-abstract improvements to computer technology just as hardware improvements can, and sometimes the improvements can be accomplished through either route. We thus see no reason to conclude that all claims directed to improvements in computer-related technology, including those directed to software, are abstract and necessarily analyzed at the second step of *Alice*, nor do we believe that *Alice* so directs. Therefore, we find it relevant to ask whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea, even at the first step of the *Alice* analysis.

For that reason, the first step in the *Alice* inquiry in this case asks whether the focus of the claims is on the specific asserted improvement in computer capabilities (i.e., the self-referential table for a computer database) or, instead, on a process that qualifies as an "abstract idea" for which computers are invoked merely as a tool. As noted *infra*, in *Bilski* and *Alice* and virtually all of the computer-related § 101 cases we have issued in light of those Supreme Court decisions, it was clear that the claims were of the latter type—requiring that the analysis proceed to the second step of the *Alice* inquiry, which asks [\*12] if nevertheless there is some inventive concept in the application of the abstract idea. See *Alice*, 134 S. Ct. at 2355, 2357-59. In this case, however, the plain focus of the claims is on an improvement to computer functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity.

Accordingly, we find that the claims at issue in this appeal are not directed to an abstract idea within the meaning of *Alice*. Rather, they are directed to a specific improvement to the way computers operate, embodied in the self-referential table. See *supra* at 6. \* \* \*

## INTRODUCTION

This paper explains the writer's theory of patent drafting that includes Section 101-challenged subject matter, a "law of nature", "natural phenomenon" or an "abstract idea." Gaining allowance of claims has been made more problematic under *dicta* in what is now described as the *Mayo/Alice* case law. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012); *Alice Corp. v. CLS Bank International*, 134 S. Ct. 2347 (2014).

A primary goal of this paper is to present a strategy for gaining allowance even if the current *Mayo/Alice* case law remains static.

This paper is *not* meant as a self-contained treatise on the law of patent-eligibility. Indeed, it is not such a work. Instead, it is a very brief snippet taken from THE SEQUENOM PATENT ELIGIBILITY CHALLENGE.

### **A Simple, Easy To Understand Presentation**

It is imperative at this stage to present the invention in as simple and straight-forward a manner as possible for a variety of reasons.

First of all, there is an appreciable percentage of Patent Examiners who *do* understand the patent-eligibility issues, if the issues are presented neatly and cleanly. While it may be important to have a lengthy specification with details as to how the invention operates, it is imperative that a brief *Summary of the Invention* contain all the points the Patent Examiner must consider in his examination. Particularly, there should be a crisp, clean definition of parameters.

If the presentation is complex, even the Patent Examiner who is able to understand the legal issues involved may be tempted to reject the application with the knowledge that he is likely to be supported by his Primary Examiner and at the Board.

If the applicant faces either an obstinate Patent Examiner or one who does not understand the issues, only with a simple presentation of the issues is there any realistic opportunity for a meaningful review by the Primary Examiner.

And, above all, if the case *does* reach the Patent Trial and Appeal Board, only if the case is limited to one issue (or perhaps two) and the matter is cleanly presented, then and only then is there a real chance of gaining meaningful review at the PTAB.

### **A Case that Could Go to the PTAB or Federal Circuit**

One would never (or at least should never) consider taking an appeal from the Patent Office to the Federal Circuit unless there is one clear issue for appeal (or at most a second issue). Only if one has a precisely tailored case as an appellant in review of an Examiner's decision does one have a strong chance of winning on appeal.

If one *has* such a case that is simple to understand with no side issues and just a handful of claims, then it may well be possible to gain the attention of a Supervisory Primary Examiner to overturn the Examiner's decision: And, more importantly, perhaps this may not even be necessary as where there is a cleanly presented case that has a substantial chance of success on appeal, then there is a greater likelihood that the Examiner, alone, will decide to allow the claims.

### **Crafting Applications "Today" for Allowance "Tomorrow"**

The anti-patent-eligibility attitude of the incumbent Under Secretary only complicates matters. But, we have perhaps months away from her *pro forma* tender of resignation in anticipation of the Presidential election, a time prior to any realistic expectation of examination of a patent application filed "today."

Certainly, the goal for the typical patent applicant is to get his proper scope of protection and not to be a "test case" to challenge the current anti-patent attitude of the Lee Administration. Yet, the basic elements that will be present in such a test case should also be present in the application that should be drafted to take advantage of the results of the test case.

Realistically, some Patent Examiners will dissect claims to focus on an element with an "abstract" principle or "natural" product and, because *that* element, *standing alone*, lacks patent eligibility under 35 USC § 101, the claims will be denied *often even without a prior art search* as failing to meet the patent-eligibility test of current Patent Office guidelines. It may well be a different story if the case is appealed to the Patent Trial and Appeal Board where the individual Administrative Patent Judges are seen to take a relatively independent stance from the administration of the Patent Office.

The immediate patent drafting solution is to craft a patent application that best meets the current case law, and also provides basis for a test case at the Patent Trial and Appeal Board. (A segment of Examiners who *do* reject claims to inventions where they see a shaky foundation for their position on appeal may very well back off when an Appeal Brief is filed in a well-presented case.)

## Refiling to Create a “Clean” Case for Examination

What should be done when one comes fresh on the scene with a patent application that has too many issues, ambiguous claims and all in all is not at all fit for an appeal and, *a fortiori*, very unlikely to be allowed by the Examiner, given his expectation that if an appeal is taken, he will be affirmed? One solution is to file a continuation that cleans up the case and simplifies the issues.

If this approach is taken, then a useful solution is to maintain the bulk of the application in its detailed description of the invention, and modify only the claims and the *Summary of the Invention*. It will undoubtedly be the case that the applicant will need priority based upon the original application.

Without priority, the new application will stand naked as of the refiling date and as to claims lacking support in the original application, they may stand barred as anticipated by any much earlier-published foreign counterpart application. “Claims enjoy the earlier filing date only if the [earlier] application provided adequate written description under 35 U.S.C. § 112, ¶ 1.” *Trading Techs. Int’l, Inc. v. eSpeed, Inc.*, 595 F.3d 1340 (Fed. Cir. 2010)(Rader, J.)(quoting *New Railhead Mfg. v. Vermeer Mfg.*, 298 F.3d 1290, 1294 (Fed. Cir. 2002)(Michel, J.)). In a later-filed application, the applicant must show “that he or she ‘had invented each feature that is included as a claim *limitation*[.]’” *Cordis Corp. v. Boston Sci. Corp.*, 561 F.3d 1319, 1332 (Fed. Cir. 2009)(Dyk, J.)(quoting *New Railhead*, 298 F.3d at 1295)(emphasis added).

## TOP TEN RULES

### Rule (1): The Claimed Combination as a Whole

The specification and prosecution history should emphasize that the claimed invention comprises *all* of the elements of the claim.

To be sure, there is *dicta* in *Parker v. Flook*, 437 U.S. 584 (1978), seemingly supporting a claim dissection approach. However, in the context of a rich body of case law setting forth the “all elements” rule to claim interpretation, the inconsistent *dicta* should not stand. See THE SEQUENOM PATENT ELIGIBILITY CHALLENGE, § 8[b][1], *Flook versus the “All Elements” Rule*. Also, it is important to note that the overly broad statements in *Flook* were repudiated in *Diamond v. Diehr*, 450 U.S. 175 (1981). To the extent that *Flook* stands for the proposition that one may dissect a claim into its constituent elements to determine patent-eligibility based upon the patent-eligibility of one of the components, *Flook* was cabined by *Diamond v. Diehr*, 450 U.S. 175 (1981).



In *Diehr* the Court expressly stated that “[i]n determining the eligibility of [the patent applicants’] claimed process for patent protection under § 101, their *claims must be considered as a whole*. It is inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the analysis.” *Diehr*, 450 U.S. at 188.

#### **A. *Chakrabarty* “Straw” Combination Claiming**

A *combination* should be claimed that includes subject matter that *is* patent-eligible, to emphasize that the invention is nonobvious, i.e., “inventive”. An excellent example of a test case with this strategy is *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980), where the claims that reached the courts were to a microorganism, *per se*, but the application also included a claim to a combination of the microorganism together with *straw*. *In re Bergy*, 596 F.2d 952, 986 (CCPA 1979), *aff’d sub nom Diamond v. Chakrabarty*, 447 U.S. 303 (1980)(claim 31). Certainly, “straw”, *per se*, is not “inventive” but the combination with the microorganism was not suggested to one of ordinary skill in the art. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007)(discussing the *Adams Battery* case, *United States v. Adams*, 383 U.S. 39 (1966)) (“The fact that the elements worked together in an unexpected and fruitful manner supported the conclusion that Adams’ design was not obvious to those skilled in the art.”) The claim was allowed by the Examiner, setting the stage for the appellate challenge with a “given” that the Patent Office acknowledged that the subject matter is “inventive”.

By presenting a claim *acknowledged* as representing inventive activity by the Office, the appellate tribunals had, as a factual *given*, the inventive nature of the claimed subject matter.

#### **B. *Diehr* Recital of Details of the Innovation**

An “apply it” type of software claim that includes no recitation of software details raises a red flag and should be avoided. Instead, a “*Diehr* claim” should be presented which sets forth the detailed sequence of steps of the software-implemented invention. *Diamond v. Diehr*, 450 U. S. 175 (1981), itself provides an excellent example of such a claim:

1. A method of operating a rubber-molding press for precision molded compounds with the aid of a digital computer, comprising:  
providing said computer with a data base for said press including at least, natural logarithm conversion data ( $\ln$ ),  
the activation energy constant (C) unique to each batch of said compound being molded, and  
a constant (x) dependent upon the geometry of the particular mold of the press,  
initiating an interval timer in said computer upon the closure of the press for monitoring the elapsed time of said closure,  
constantly determining the temperature (Z) of the mold at a location closely adjacent to the mold cavity in the press during molding,  
constantly providing the computer with the temperature (Z),  
repetitively calculating in the computer, at frequent intervals during each cure, the Arrhenius equation for reaction time during the cure, which is  
$$\ln v = CZ + x$$
where  $v$  is the total required cure time,  
repetitively comparing in the computer at said frequent intervals during the cure each said calculation of the total required cure time calculated with the Arrhenius equation and said elapsed time, and  
opening the press automatically when a said comparison indicates equivalence.  
*Diehr*, 450 U. S. at 179 n.5(reciting claim 1).

To simply provide a generic definition of a computer step, the so-called “apply it” claims, trivializes the invention and almost certainly pushes the court to deny patent-eligibility. As explained by Judge Dyk, “there must be an ‘inventive concept’ to take the claim into the realm of patent- eligibility. [*Alice*, 134 S. Ct. at 2355 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1297 (2012))]. A simple instruction to apply an abstract idea on a computer is not enough. *Alice*, 134 S. Ct. at 2358 (‘[M]ere recitation of a generic computer cannot transform a patent-ineligible idea into a patent-eligible invention. Stating an abstract idea ‘while adding the words ‘apply it’ is not enough for patent eligibility.’ (quoting *Mayo*, 132 S. Ct. at 1294)).” *Intellectual Ventures I LLC v. Capital One Bank*, \_\_ F.3d \_\_, \_\_ (Fed. Cir. 2015), *See also Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1350 (Fed. Cir., 2014)(quoting *Bancorp Servs., LLC v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1276 (Fed.Cir.2012)) (“[A] claim reciting an abstract idea does not become eligible ‘merely by adding the words ‘apply it.’ ”).

**Rule (2). An “Inventive” Claimed Combination**

It should be acknowledged that, *arguendo*, the invention *includes* as one element a law of nature, natural phenomenon or an abstract idea which the decisions have recognized as lacking patent-eligibility. *Buysafe, Inc. v. Google, Inc.*, 765 F.3d 1350, 1352 (Fed. Cir. 2014)(Taranto, J.)(quoting *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S.Ct. 2347, 2354 (2014), quoting *Association for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S.Ct. 2107, 2116 (2013)) (“The Supreme Court has ‘interpreted § 101 and its predecessors ... for more than 150 years’ to ‘contain[ ] an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.’”).

“Claim 1” should be a combination claim that includes at least one “traditional” feature so that one can successfully argue that the *claimed combination* is nonobvious under 35 USC § 103, i.e., the *claimed combination* is “inventive”.

To be sure, there are many situations where the addition of a “conventional” element does not create nonobvious (or “inventive”) subject matter. But, this is a fact-based determination where the *combination* of the otherwise “conventional” element may be part of a nonobvious *combination* where there is no motivation in the prior art to make that combination.

It is thus a *claimed combination*, including all of its elements in the combination of the claim, that is to be evaluated for patent-eligibility and nonobviousness: The claim is not to be dissected element by element. As explained in the *Adams Battery* case, “it is fundamental that claims are to be construed in the light of the specifications and both are to be read with a view to ascertaining the invention[.]” *United States v. Adams*, 383 U.S. 39, 48-49 (1966)(citing *Seymour v. Osborne*, 78 U.S. (11 Wall.) 516, 547 (1871); *Schriber-Schroth Co. v. Cleveland Trust Co.*, 311 U.S. 211, 312 U.S. 654 (1940); *Schering Corp. v. Gilbert*, 153 F.2d 428 (2nd Cir. 1946).) For a further discussion of this issue, see THE SEQUENOM PATENT ELIGIBILITY CHALLENGE, § 8[b][2], *The “Inventive” Feature of the Claimed Combination*.

### **Rule (3) Establishing an “Inventive Step” for the Combination**

The applicant should be prepared to respond to a patent-eligibility challenge by establishing that his combination is “inventive”, i.e., is nonobvious under 35 USC § 103. The concept of patentability as keyed to the presence of “invention” or an “inventive concept” that developed in the nineteenth century was *codified* in the 1952 Patent Act as 35 USC § 103. As explained by the late Giles Sutherland Rich, “[t]erms like ‘inventive application’ and ‘inventive concept’ no longer have any useful place in deciding questions under the 1952 Act[.]” *In re Bergy*, 596 F.2d 952, 961 (CCPA 1979)(Rich, J.). Nevertheless, the Supreme Court has resuscitated the term “inventive concept” as a condition for patent-eligibility under 35 USC § 101 in a series of cases exemplified by *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289 (2012). *See* § 15[a][2], *Patent Eligibility and Patentability Conflated*.

“[Reference is made] to ‘the inventive concept’[.] ... That facile focus[ ] resulted in treating the claims at many points as though they read differently from those actually allowed and in suit.” *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1547 (Fed. Cir. 1983)(Markey, C.J.); *see also*; *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 949 (Fed. Cir. 1987)(en banc)(Nies, J., additional views)( (“It is axiomatic under our precedent that one cannot obtain patent protection for an *inventive concept* or for the *heart* or ‘*essence*’ of an invention or for an achieved result. ...”)

One of the ways that a combination is “inventive” or nonobvious is where the prior art “teaches away” from making that combination: “In *United States v. Adams*, 383 U.S. 39, 40 (1960) \*\*\*, the Court considered the obviousness of a ‘wet battery’ that varied from prior designs in two ways: It contained water, rather than the acids conventionally employed in storage batteries; and its electrodes were magnesium and cuprous chloride, rather than zinc and silver chloride. The Court recognized that when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result. 383 U.S. at 50-51. It nevertheless rejected the Government's claim that Adams' battery was obvious. The Court relied upon the corollary principle that when the prior art teaches away from combining certain known elements, discovery of a successful means of

combining them is more likely to be nonobvious. *Id.*, at 51-52. When Adams designed his battery, the prior art warned that risks were involved in using the types of electrodes he employed. The fact that the elements worked together in an unexpected and fruitful manner supported the conclusion that Adams' design was not obvious to those skilled in the art.” *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007).

As explained by Judge Hughes (dicta):

“If all elements of a claim are found in the prior art, \*\*\* the factfinder must further consider the factual questions of whether a person of ordinary skill in the art would be motivated to combine those references, and whether in making that combination, a person of ordinary skill would have had a reasonable expectation of success. [*Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1164 (Fed. Cir. 2006).] The Supreme Court has cautioned, however, that an obviousness determination cannot be confined by formalistic rules. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007). Rather, courts must take an ‘expansive and flexible approach’ to the question of obviousness. *Id.* at 415. ‘Evidence of a motivation to combine prior art references may flow from ‘the nature of the problem to be solved.’ *Tokai Corp. v. Easton Enters., Inc.*, 632 F.3d 1358, 1371 (Fed. Cir. 2011) (quoting *Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 1276 (Fed. Cir. 2004)).” *Dome Patent L.P. v. Lee*, \_\_ F.3d \_\_, \_\_ (Fed. Cir. 2015)(Hughes, J.).

Judge Hughes explains that:

“‘[W]hen the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious.’ *KSR [Int'l Co. v. Teleflex Inc.]*, 550 U.S. 398, 416 (2007).] A reference teaches away from a claimed invention when a person of ordinary skill, ‘upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.’ *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994). But ‘[t]he degree of teaching away will of course depend on the particular facts.’ *Id.*; see also *id.* (‘A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use.’). And ‘there is no rule that a single reference that teaches away will mandate a finding of nonobviousness.’ *Medichem[, S.A. v. Rolabo, S.L.]*, 437 F.3d 1157, 1165 (Fed. Cir. 2006)]; see also *KSR*, 550 U.S. at 421 (‘Rigid preventative rules that deny factfinders recourse to common sense . . . are neither necessary under our

case law nor consistent with it.’). Additionally, just because ‘better alternatives’ may exist in the prior art ‘does not mean that an inferior combination is inapt for obviousness purposes.’ *In re Mouttet*, 686 F.3d 1322, 1334 (Fed. Cir. 2012) (citing *Gurley*, 27 F.3d at 553).”

*Dome Patent L.P. v. Lee*, \_\_\_ F.3d \_\_\_, \_\_\_ (Fed. Cir. 2015)(Hughes, J.).

#### **Rule (4) Elements Specifically Defined, not at “A High Level of Generality”**

A major theme of the case law has been that claims involving what may otherwise constitute an inventive feature are stated at a high level of generality so that, in essence, the claimed invention is obvious.

As explained by Judge Taranto, “[t]he Court in *Alice [Corp. v. CLS Bank International]*, 134 S. Ct. 2347, 2357 (2014),] made clear that a claim directed to an abstract idea does not move into section 101 eligibility territory by “merely requir[ing] generic computer implementation.” In so holding, the Court in *Alice* relied on *Mayo* for the proposition that “ ‘[s]imply appending conventional steps, specified at a high level of generality,’ was not ‘enough’ to supply an ‘ ‘inventive concept.’ ” ’ ” *Id.* (quoting *Mayo [Collaborative Servs. v. Prometheus Labs., Inc.]*, 132 S. Ct. 1289, 1300, 1297, 1294 (2012)). Neither “attempting to limit the use of [the idea] to a particular technological environment” nor a “wholly generic computer implementation” is sufficient. *Id.* at 2358 (internal quotation marks omitted). The Court found nothing sufficient in *Alice Corp.*’s claims.” *BuySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1354 (Fed. Cir., 2014)(Taranto, J.)(footnote omitted). *See also Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, \_\_\_ F.3d \_\_\_, \_\_\_ (Fed. Cir. 2015)(Reyna, J.)(“In [*Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1300 (2012)], ‘[s]imply appending conventional steps, specified at a high level of generality,’ was not enough to supply an inventive concept.”)

The *Diehr* claim is a good model for how to draft a claim to avoid this denial of patentability. The *Diehr* claim, right in the claim itself, recites a plurality of elements. *See* § IV-A-2, *Diehr Claiming Reciting Details of the Innovation*, which contains a complete statement of the main claim that the Supreme Court considered in *Diamond v. Diehr*, 450 U. S. 175 (1981).

### **Rule (5) Clear Claim Boundaries in the Wake of *Nautilus***

In the wake of *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014), there is heightened scrutiny of issues of claim indefiniteness under 35 USC § 112(b).

A straightforward claiming style should be used. Above all, “means”-defined claims should be avoided. As explained in FIRST TO FILE PATENT DRAFTING, §18, “*Means*”-*Defined Functional Elements*, “[o]ne of the major problems for ‘means’ claiming that should dissuade the prospective first time user of this claim form is that it is more difficult to *support* this type of claim than any other claim form. See [FIRST TO FILE PATENT DRAFTING,] § 18[e], *Algorithm to Support a ‘Means’-Defined Element* (quoting *Blackboard, Inc. v. Desire2Learn, Inc.*, 574 F.3d 1371 (Fed. Cir. 2009)). The problem of supporting structure is particularly acute where software is defined in terms of ‘means’: Numerous attempts have been made (unsuccessfully) to enforce such claims where the specification failed to disclose a supporting algorithm. See *id.*, §18[e][1], *Algorithm Needed for Software Inventions*. There are rare exceptions. See *id.*, §18[e][3], ‘*Katz Exception*’ with no Need for Algorithm Disclosure.”

### **Rule (6) A Fully Enabled Embodiment to Support the Claims**

It is imperative that the specification contain a completely enabled embodiment of the claimed invention. This is critical in software technology where a Patent Examiner will surely grasp at an issue of lack of enablement as a way to avoid dealing with a section 101 patent-eligibility issue. In countless cases, the applicant has claimed an invention with software as an element where there was no specific example of such software. Routinely, such claims have been knocked out as indefinite under what is today 35 USC § 112(b). See, e.g., *Blackboard, Inc. v. Desire2Learn, Inc.*, 574 F.3d 1371 (Fed. Cir. 2009).

As explained in FIRST TO FILE PATENT DRAFTING, “[t]he problem of supporting structure is particularly acute where software is defined in terms of ‘means’: Numerous attempts have been made (unsuccessfully) to enforce such claims where the specification failed to disclose a supporting algorithm. See §18[e][1], *Algorithm Needed for Software Inventions*. There are rare exceptions. See §18[e][3], *Katz Exception’ with no Need for Algorithm Disclosure.*”

### **Rule (7) Dual Sets of Claims for Staged Prosecution**

To the extent that the applicant has a commercial invention to protect where it is desired to have, say, two features in “claim 1” and not the five or six features in the disclosed embodiment, a useful way of presentation of the invention is to have two sets of claims: The first set appearing on the first page of the claims is to the overall combination with five or six features which *maximizes* the point that the invention is far more than just being directed to a patent-ineligible element. The second set of claims is to the minimum combination necessary to establish patentability.

To the extent that the Examiner requires restriction between the two sets of claims, the claims to the five or six features would be elected as the best short-range chance for allowance. Then, after securing allowance of this elected set (or if and when a test case changes the case law), a divisional application is filed to the minimum combination necessary to establish patentability.

To the extent that the Examiner does *not* make a restriction requirement, the applicant can still file a *voluntary* divisional to the minimum combination necessary to establish patentability and simultaneously cancel such claims in the original application. (Of course, a terminal disclaimer may be necessary for the voluntary divisional.)

### **Rule (8) A Minimalist Approach to the Number of Claims**

For a test case, it is best to present a minimum number of claims, say, three or four, instead of thirty or forty. In addition to enhancing chances on appeal, it is also easier for a Supervisory Primary Examiner to grasp the issues in the case with just a few claims, and perhaps lead to an SPE intervention to allow the case.



**Rule (9). A Post-First Action *Background of the Invention***

The applicant should, of course, submit an Information Disclosure Statement within three months from the filing date which identifies (but does not characterize or make arguments about) the prior art. Unlike the usual situation where the applicant is counseled *not* to file a *Background of the Invention*, *here*, it is advisable after the Examiner’s first action to amend the specification to include such a *Background of the Invention* which in a brief paragraph or two explains why the claimed subject matter is “inventive”, i.e., nonobvious.

This argument creates a predicate to a Reply Brief before the Patent Trial and Appeal Board in the event the examiner makes an argument that the claimed subject matter is not “inventive”.

**Rule (10) No “Preemption” of Downstream Innovation**

As explained by Professor Lefstin, “*Mayo* and *Alice* justified subject matter exclusions on utilitarian grounds: because fundamental principles are ‘building blocks’ for future work, patents on laws of nature or abstract ideas threaten to foreclose more innovation than they promote.” Jeffrey A. Lefstin, *The Three Faces of Prometheus: A Post-Alice Jurisprudence of Abstractions*, 16 N. C. J. L. & Tech. 647, 655 (2015)(citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1301-03 (2012); *Alice Corp. v. CLS Bank International*, 134 S. Ct. 2347 (2014)). *See also* THE SEQUENOM PATENT ELIGIBILITY CHALLENGE, § 3[b], “*Research Preemption*” *Confusion in Mayo and Alice*.

**A. Disclaimer of Coverage of an Element, *Per Se***

To clarify that there is no “preemption” of research by the use of the element which lacks patent-eligibility, it may be useful to include in the *Summary of the Invention* a statement that the patent applicant disclaims any coverage of any individual element within the claim and limits his claim to coverage of claimed combination.

Such a disclaimer should not even be necessary, but comes right to the point. As noted in THE SEQUENOM PATENT ELIGIBILITY CHALLENGE, § 8[b][1], *Flook versus the “All Elements” Rule*, the seemingly contradictory view in *Parker v. Flook*, 437 U.S. 584 (1978), was cabined in *Diamond v. Diehr*, 450

U.S. 175 (1981). In that case, the Court said that “[i]n determining the eligibility of [the patent applicants’] claimed process for patent protection under § 101, their claims must be considered as a whole. It is inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the analysis.” *Diehr*, 450 U.S. at 188.

### **B. “Mueller Disclaimer” to Experiment “On” the Invention**

The critical element of the case law since *Bilski* is that a patent on a fundamental principle “preempts” future research. While under historic case law and seemingly everywhere at the appellate level outside the Federal Circuit this activity is *outside* the patent grant, it may be useful to include a statement that the patent applicant confirms its understanding that there is a fundamental public right to experiment “on” a patented invention as that terminology is used by Professor Janice M. Mueller, *No ‘Dilettante Affair’: Rethinking the Experimental Use Exception to Patent Infringement for Biomedical Research Tools*, 76 Wash. L.Rev. 1 (2001). As confirmation, the *Summary of the Invention* could include a “Mueller Disclaimer”, i.e., a statement that the patentee expressly disclaims enforcement of any patent against a member of the public who conducts research “on” the patented invention within the meaning of the Mueller article.

## **THE LEE GUIDANCE QUAGMIRE**

It is pointless to make an argument in the first instance keyed to Patent Office Guidelines. *See See THE SEQUENOM PATENT ELIGIBILITY CHALLENGE*, § 1[a], “*Fool’s Gold*” *Guidance from the Lee Administration* (p. 36), The Naples Roundtable (Jan. 4, 2016), available at <https://www.thenaplesroundtable.org/wp-content/uploads/2015/09/The-Sequiom-Patent-Eligibility-Challenge-by-Harold-C.-Wegner.pdf>.

If the Examiner cites any of the Patent Office Guidelines, then it is necessary to at that stage explain why the Patent Office Guidelines are inconsistent with the Supreme Court case law.

## **AN APPELLATE CHALLENGE AS THE LAST RESORT**

It should almost always be the goal to gain allowance from the Examiner *without* an appeal. But, sometimes it is necessary to file an appeal brief for the Patent Office to understand that the applicant's position is correct.

More often than not, if the case is cleanly presented as outlined in this paper, if the applicant *does* have a valid case, there is a substantial chance that the Office will allow the case on brief, without proceeding further.

In some situations, the law may remain murky at the time of an appeal brief. Here, provided a request for an oral hearing at the PTAB has been timely lodged, by the time that the case is set for oral hearing – months or years later – the case law may have evolved to the point where the applicant has the option of proceeding further with the appeal, or refile the case to take into account the case law developments.

## About the Author



**HAROLD C. WEGNER** is President, The Naples Roundtable, Inc., <https://www.thenaplesroundtable.org/>, a 501(c)3 nonprofit corporation with a mission to “explor[e] ways to strengthen and improve the patent system”. Professor Wegner concluded a more than twenty year relationship with the George Washington University Law School where he had been Director of the Intellectual Property Law Program and Professor of Law.

*This paper represents the views of the author and is neither sponsored by nor written on behalf of any other person organization.*

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**MEMORANDUM**

**DATE:** May 19, 2016  
**TO:** Patent Examining Corps  
**FROM:**   
Robert W. Bahr  
Deputy Commissioner  
for Patent Examination Policy  
**SUBJECT:** Recent Subject Matter Eligibility Decisions (*Enfish, LLC v. Microsoft Corp.* and *TLI Communications LLC v. A.V. Automotive, LLC*)

On May 12, 2016, the U.S. Court of Appeals for the Federal Circuit (Federal Circuit) in *Enfish, LLC v. Microsoft Corp.* held that the claimed database software designed as a “self-referential” table is patent eligible under 35 U.S.C. § 101 because it is not directed to an abstract idea. While the decision does not change the subject matter eligibility framework, it provides additional information and clarification on the inquiry for identifying abstract ideas (Step 2A of the subject matter eligibility examination guidelines).

In reaching its conclusion, the Federal Circuit highlighted several important points regarding the subject matter eligibility analysis, in particular regarding whether a claim is directed to an abstract idea (Step 2A). First, the court noted that when determining whether a claim is directed to an abstract idea, it is appropriate to compare the claim to claims already found to be directed to an abstract idea in a previous court decision. Second, the court emphasized that the “directed to” inquiry applies a filter to claims, when interpreted in view of the specification, based on whether their character as a whole is directed to a patent ineligible concept. Third, the Federal Circuit cautioned against describing a claim at a high level of abstraction untethered from the language of the claim when determining the focus of the claimed invention. Fourth, the court stated that an invention’s ability to run on a general purpose computer does not automatically doom the claim. The subject matter eligibility examination instructions, as set out in the 2014 Interim Eligibility Guidance, July 2015 Update, and May 4, 2016 memorandum to examiners, are consistent with these points.

The Federal Circuit in *Enfish* stated that certain claims directed to improvements in computer-related technology, including claims directed to software, are not necessarily abstract (Step 2A). The court specifically noted that some improvements in computer-related technology, such as chip architecture or an LED display, when appropriately claimed, are undoubtedly not abstract. Explaining that software can make non-abstract improvements to computer technology just as hardware can, the court noted that claims directed to software, as opposed to hardware, also are

not inherently abstract. Therefore, an examiner may determine that a claim directed to improvements in computer-related technology is **not** directed to an abstract idea under Step 2A of the subject matter eligibility examination guidelines (and is thus patent eligible), without the need to analyze the additional elements under Step 2B. In particular, a claim directed to an improvement to computer-related technology (e.g., computer functionality) is likely not similar to claims that have previously been identified as abstract by the courts.

The claims of the patents at issue in this case describe the steps of configuring a computer memory in accordance with a self-referential table, in both method claims and system claims that invoke 35 U.S.C. § 112(f). The court asked whether the focus of the claims is on the specific asserted improvement in computer capabilities (*i.e.*, the self-referential table for a computer database), or instead on a process that qualifies as an “abstract idea” for which computers are invoked merely as a tool. To make the determination of whether these claims are directed to an improvement in existing computer technology, the court looked to the teachings of the specification. Specifically, the court identified the specification’s teachings that the claimed invention achieves other benefits over conventional databases, such as increased flexibility, faster search times, and smaller memory requirements. It was noted that the improvement does not need to be defined by reference to “physical” components. Instead, the improvement here is defined by logical structures and processes, rather than particular physical features. The Federal Circuit stated that the *Enfish* claims were not ones in which general-purpose computer components are added after the fact to a fundamental economic practice or mathematical equation, but were directed to a specific implementation of a solution to a problem in the software arts, and concluded that the *Enfish* claims were thus **not** directed to an abstract idea (under Step 2A).

Closely following *Enfish*, the Federal Circuit decided *TLI Communications LLC v. A.V. Automotive, LLC* on May 17, 2016, which provides a contrast between non-abstract claims directed to an improvement to computer functionality and abstract claims that are directed, for example, to generalized steps to be performed on a computer using conventional computer activity. Specifically, the court stated that the TLI claims describe steps of recording, administration and archiving of digital images, and found them to be directed to the abstract idea of classifying and storing digital images in an organized manner (Step 2A). The court then found that the additional elements of performing these functions using a telephone unit and a server did not add significantly more to the abstract idea because they were well-understood, routine, conventional activities (Step 2B).

In summary, when performing an analysis of whether a claim is directed to an abstract idea (Step 2A), examiners are to continue to determine if the claim recites (*i.e.*, sets forth or describes) a concept that is similar to concepts previously found abstract by the courts. The fact that a claim is directed to an improvement in computer-related technology can demonstrate that the claim does not recite a concept similar to previously identified abstract ideas.