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UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

IN RE: JEFFREY A. KILLIAN,
Appellant

2021-2113

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. 14/450,042.

Decided: August 23, 2022

BURMAN YORK MATHIS, III, Law Office of Burman Y. Mathis, Harper's Ferry, VA, argued for appellant.

MONICA BARNES LATEEF, Office of the Solicitor, United States Patent and Trademark Office, Alexandria, VA, argued for appellee Katherine K. Vidal. Also represented by MARY L. KELLY, THOMAS W. KRAUSE, AMY J. NELSON, FARHEENA YASMEEN RASHEED.

Before TARANTO, CLEVINGER, and CHEN,
Circuit Judges.

CHEN, *Circuit Judge.*

Jeffrey A. Killian appeals from the decision of the Patent Trial and Appeal Board (Board) affirming the examiner’s rejection of claims 1, 5–8, 12–15, 19, 20 and 22 (all pending claims) of U.S. Patent Application No. 14/450,042 (’042 application) under 35 U.S.C. § 101. *See Ex Parte Jeffrey A. Killian*, No. 2020-003680, 2021 WL 363335 (P.T.A.B. Feb. 1, 2021). We affirm.

BACKGROUND

The ’042 application relates to a system and method “for determining eligibility for Social Security Disability Insurance [SSDI] benefits through a computer network.” J.A. 45 ¶ 2. This process entails looking up information from two sources: (1) a Federal Social Security database; and (2) a State database containing records for patients receiving treatment for developmental disabilities or mental illness. J.A. 47 ¶¶ 11–12. For those patients identified in the State database as meeting certain criteria but not currently receiving SSDI benefits, the method uses relevant information to determine if a given patient is entitled to receive SSDI benefits. J.A. 47–48 ¶¶ 12–13. The specification explains that once the relevant information is on

hand, “the automated system seamlessly carries out the process of determining who is eligible for SSDI and who is not, which frees up assigned staff to perform more traditional duties.” J.A. 67 ¶ 117.

Claim 1 is representative¹:

A computerized method for determining overlooked eligibility for social security disability insurance (SSDI)/adult child benefits through a computer network, the method comprising the steps of:

- (a) providing a computer processor and a computer readable media;
- (b) providing access to a Federal Social Security database through the computer network, wherein the Federal Social Security database provides records containing information relating to a person’s status of SSDI adult child benefits and/or parental and/or marital information relating to SSDI adult child benefit eligibility;
- (c) providing access to a State database through the network, wherein the State database provides records containing information relating

¹ The Board treated claim 1 as representative. *See Ex Parte Jeffrey A. Killian*, No. 2020-003680, 2021 WL 1784797, at *2, *5 (P.T.A.B. May 3, 2021) (denying reconsideration); *Killian*, 2021 WL 363335,

to persons receiving treatment for developmental disabilities and/or mental illness from a State licensed care facility;

d) selecting at least one person from the State database who is identified as receiving treatment for developmental disabilities and/or mental illness;

(e) creating an electronic data record comprising information relating to at least the identity of the person and social security number, wherein the electronic data record is recorded on the computer readable media;

(f) retrieving the person's Federal Social Security record containing information relating to the person's status of SSDI adult child benefits through the network;

(g) determining whether the person is receiving SSDI adult child benefits based on the SSDI status information contained within the Federal Social Security database record through the computer network;

(h) indicating in the electronic data record whether the person is receiving SSDI adult child benefits or is not receiving SSDI adult child benefits;

at *4. On appeal, Mr. Killian does not argue that it erred in doing so.

for at least one electronic data record of persons indicated as not receiving SSDI adult child benefits, comprising the steps of:

- (a) providing a caseworker display system;
- (b) generating a data collection input screen display to the caseworker display system relating to the electronic data record of persons indicated as not receiving SSDI adult child benefits;
- (c) caseworker identifying and inputting parental and/or marital names and Social Security numbers into the electronic data record of the person indicated in the electronic data record as not receiving SSDI adult child benefits;
- (d) retrieving parental and/or marital Social Security record(s) from the Federal Social Security database through the computer network in order to identify information for determining eligibility for SSDI adult child benefits;
- (e) determining whether the person indicated in the electronic data record is eligible for receiving SSDI adult child benefits based on the identified information for determining eligibility of SSDI adult child benefits and current SSDI benefit legal requirements; and
- (f) indicating in the electronic data record whether the person is eligible for SSDI adult child benefits or is not eligible for SSDI adult child benefits.

J.A. 30–31.

The examiner rejected all pending claims of the '042 application under § 101, finding that they were directed to the abstract idea of “determining eligibility for social security disability insurance . . . benefits” and lacked additional elements amounting to significantly more than the abstract idea because the additional elements were simply generic recitations of generic computer functionalities. J.A. 89. Mr. Killian appealed to the Board, which affirmed the examiner’s rejection and designated its affirmance as a new ground for rejection under 37 C.F.R. § 41.50(b). *Killian*, 2021 WL 363335, at *1. The Board found that the claims are directed to the patent-ineligible abstract idea of “a search algorithm for identifying people who may be eligible for SSDI benefits they are not receiving.” *Id.* at *6. It determined that the essential steps recited by claim 1—the “selecting” and “determining” limitations²—

² More specifically, the essential steps identified by the Board are:

(d) selecting at least one person from the State database who is identified as receiving treatment for developmental disabilities and/or mental illness;

can be performed in the human mind and are thus “an abstract mental process.” *Id.* at *6–7. It then found that the remaining steps were merely directed to data gathering or data output and were therefore appropriately categorized as “insignificant extra solution activity” or “primitive computer operations found in any computer system” “which do not integrate the processes into a ‘practical application,’ and which do not recite an ‘inventive concept.’” *Id.* at *8–9.

(g) determining whether the person is receiving SSDI adult child benefits based on the SSDI status information contained within the Federal Social Security database record . . . ;

for at least one . . . data record of persons indicated as not receiving SSDI adult child benefits, comprising the steps of:

(c) caseworker identifying . . . parental and/or marital names and Social Security numbers . . . of the person . . . ;

(e) determining whether the person indicated in the . . . data record is eligible for receiving SSDI adult child benefits based on the identified information for determining eligibility of SSDI adult child benefits and current SSDI benefit legal requirements.

Killian, 2021 WL 363335, at *6.

The Board denied Mr. Killian's request for rehearing. *Killian*, 2021 WL 1784797, at *6.

Mr. Killian appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

Patent eligibility under § 101 is a question of law that may implicate underlying issues of fact. *In re Marco Guldenaar Holding B.V.*, 911 F.3d 1157, 1159 (Fed. Cir. 2018) (citing *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1342 (Fed. Cir. 2018)). We review the Board's ultimate conclusion on patent eligibility de novo. *Id.* We review any underlying factual findings for substantial evidence. *Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1362 (Fed. Cir. 2020).

Section 101 provides “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of” Title 35 of the United States Code. The Supreme Court has long held that “[l]aws of nature, natural phenomena, and abstract ideas are not patentable” under § 101. *Alice Corp. Pty. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

In *Alice*, 573 U.S. at 218, and *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 77–78 (2012), the Supreme Court explicated a two-step test for determining whether claimed subject matter falls within one of the judicial exceptions to patent eligibility. First, we “determine whether the claims at issue are directed to a patent-ineligible concept,” such as an abstract idea. *Alice*, 573 U.S. at 218. Second, if the claims are directed to a patent-ineligible concept, we “examine the elements of the claim to determine whether it contains an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application.” *Id.* at 221 (internal quotation marks omitted) (quoting *Mayo*, 566 U.S. at 72, 80).

The claims of the '042 application do not pass this threshold test. As the Board found, they are directed to the patent-ineligible abstract mental process of “a search algorithm for identifying people who may be eligible for SSDI benefits they are not receiving.” *See Killian*, 2021 WL 363335, at *6.

We have held that mental processes are abstract ideas under *Alice/Mayo* step one. *See, e.g., CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) (“[C]omputational methods which can be performed *entirely* in the human mind are the types of methods that embody the ‘basic tools of scientific and technological work’ that are free to all men and reserved exclusively to none.” (quoting *Gottschalk v. Benson*, 409 U.S. 63,

67 (1972)); *see also Elec. Power Grp., LLC v. Alstom, S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) (“[W]e have treated analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category.” (citations omitted)). That is, where the “focus of the claimed advance over the prior art” shows that “the claim’s ‘character as a whole’ is directed to” steps that “can be performed in the human mind, or by a human using a pen and paper” the claim is for a patent-ineligible abstract idea. *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (quoting *Elec. Power Grp.*, 830 F.3d at 1353) (other citations omitted); *CyberSource*, 654 F.3d at 1372.

The thrust of the ’042 application’s representative claim 1 is the collection of information from various sources (a Federal database, a State database, and a caseworker) and understanding the meaning of that information (determining whether a person is receiving SSDI benefits and determining whether they are eligible for benefits under the law). *See* J.A. 38–39. The Board correctly concluded that “[t]hese steps can be performed by a human, using ‘observation, evaluation, judgment, [and] opinion,’ because they involve making determinations and identifications, which are mental tasks humans routinely do.” *Killian*, 2021 WL 363335, at *6 (citation omitted).

That these steps, with the exception of the step of the caseworker obtaining additional information, are performed on a generic computer does not save the claims from being directed to an abstract idea. We have distinguished between claims “directed to an improvement in the functioning of a computer,” versus those, like the claims at issue here, that simply recite “generalized steps to be performed on a computer using conventional computer activity.” See *In re TLI Commc’ns LLC Pat. Litig.*, 823 F.3d 607, 612 (Fed. Cir. 2016) (quoting *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1338 (Fed. Cir. 2016)).

We have found similar claims pertaining to data gathering, analysis, and notification on generic computers to be directed to abstract ideas at *Alice/Mayo* step one. For example, in *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016), we held that claims directed to collecting information on access to a patient’s personal health information, analyzing that information to detect indicia of improper access, and notifying a user if improper access had occurred were directed to a “mental process within the abstract idea category.” In *Electric Power Group*, we held that claims for a method of detecting events on an interconnected power grid with steps reciting receipt of data from various sources, interpretation of that data, and display of the results were directed to an abstract idea. *Elec. Power Grp.*, 830 F.3d at

1351–54. So too, here, Mr. Killian’s claims must fail *Alice/Mayo* step one as they are directed to collection of information, comprehending the meaning of that collected information, and indication of the results, all on a generic computer network operating in its normal, expected manner. As the application’s specification suggests, nothing technical exists in the nature of these steps; they could be performed by a person reading and comprehending the meaning of the recited information. J.A. 67 ¶ 117 (stating that invention “frees up assigned staff to perform more traditional duties”).

At *Alice/Mayo* step two, we agree with the Board that there is no inventive concept to be found in the ’042 application’s claims. A claim does not pass muster at step two by “[s]tating an abstract idea while adding the words ‘apply it with a computer.’” *Alice*, 573 U.S. at 223. The additional steps in representative claim 1 do no more than instruct the practitioner to perform the abstract steps of gathering information, determining if a person is receiving benefits or is eligible for benefits under the law, and displaying the results of that analysis, all on a generic computer. As in *Electric Power Group*, 830 F.3d at 1355, the claims here do not detail how the computer should go about determining eligibility for benefits, beyond saying that the computer should determine eligibility based “on the identified information” and “current SSDI benefit legal

requirements.” J.A. 31. That is, the claims require comparing information against eligibility requirements—the same process that humans seeking to determine benefit eligibility must follow either with or without a computer. *See FairWarning*, 839 F.3d at 1095.

Mr. Killian raises myriad arguments on appeal. Most of his arguments are directed not to the specifics of the claims of the '042 application but to the corpus of § 101 jurisprudence.

A

Mr. Killian first argues that the standard promulgated in *Alice* and *Mayo* is indefinite—so poorly defined that it renders all court and Board decisions finding a claim patent ineligible under the *Alice/Mayo* standard arbitrary and capricious under the Administrative Procedure Act (APA), 5 U.S.C. § 706(2)(A), and the Due Process Clause of the Fifth Amendment. Appellant’s Br. 20–22, 26–29. He seeks “a single non-capricious definition or limiting principle” to replace the allegedly vague terms “abstract idea” and “inventive concept” used in *Alice* and *Mayo*. Appellant’s Reply Br. 5–7. After the Supreme Court’s decision in *Dobbs v. Jackson Women’s Health Organization*, 142 S. Ct. 2228 (2022), Mr. Killian submitted a supplemental filing arguing that, under that case, the Supreme Court’s § 101 jurisprudence as expounded in *Alice*; *Mayo*; *Bilski v. Kappos*, 561 U.S. 593 (2010); *Parker v.*

Flook, 437 U.S. 584 (1978); and *Benson* are “mere policy preferences” that “stand on exceptionally weak constitutional grounds” and should be reconsidered. Citation of Supplemental Authority, ECF No. 37. We do not find Mr. Killian’s arguments persuasive.

We first address Mr. Killian’s assertion that our own decisions applying the *Alice/Mayo* standard are somehow improper under the APA. As a preliminary matter, we note that the standards of review established in the APA, 5 U.S.C. § 706, do not apply to decisions by courts, such as our own. The APA governs judicial review of “agency action.” 5 U.S.C. § 704. Courts are not “agencies” under that statute. 5 U.S.C. § 701(b)(1)(B).

Although Mr. Killian alludes to Fifth Amendment Due Process Clause violations stemming from the alleged imprecision of the *Alice/Mayo* standard, he never argues that the standard runs afoul of the void-for-vagueness doctrine. Nor could he, as vagueness *as applied to the particular case* is a prerequisite to establishing facial vagueness. *Bowling v. McDonough*, 38 F.4th 1051, 1061 (Fed. Cir. 2022). While there are close cases under the *Alice/Mayo* standard, the ’042 application does not present such a close case—as we have already explained, the claims of the ’042 application are clearly patent ineligible in view of our precedent. We conclude that Mr. Killian has not

shown that our decisions applying the *Alice/Mayo* standard are improper.

We turn now to Mr. Killian’s allegation that all Board decisions finding a claim patent ineligible under the *Alice/ Mayo* standard are arbitrary and capricious under the APA. Board final decisions are reviewable under the APA. 5 U.S.C. § 704; 35 U.S.C. § 141(a). At heart, Mr. Killian attacks the Supreme Court’s interpretation of § 101, which it determined includes an implicit exception, as well as the common law standard promulgated by the Court under that interpretation—arguing that the vagueness of those decisions has led to arbitrary and capricious agency decision making. But, as we have already explained, the APA does not empower us to review decisions of “the courts of the United States” because they are not agencies. 5 U.S.C. § 701(b)(1)(B). We may not turn the “arbitrary and capricious” standard of the APA back onto the Supreme Court or our own court. As we have already done for the claims of the ’042 application, we review de novo the Board’s legal determinations under § 101 and the judicial exceptions in individual cases for compliance with the statute and judicial precedent. *See Customedia*, 951 F.3d at 1362. And we review any factual findings by the Board for substantial evidence. *Id.* But we may not announce that the Board acts arbitrarily and capriciously merely by applying binding judicial precedent, as urged by Mr. Killian.

We turn next to Mr. Killian’s desire for “a single noncapricious definition or limiting principle” for “abstract idea” and “inventive concept.” Appellant’s Reply Br. 5–7. As to the abstract idea exception, no single, hard-and-fast rule that automatically outputs an answer in all contexts exists because there are different types of abstract ideas, including (1) methods of organizing human activity, such as “fundamental economic practice[s],” *see, e.g., Alice*, 573 U.S. at 220–21; *Bilski*, 561 U.S. at 611; (2) claims to mental processes, even if performed on a computer rather than in the human mind, *see, e.g., Benson*, 409 U.S. at 67, 71–72; and (3) claims to results rather than to a means of achieving the claimed result, *see, e.g., Interval Licensing*, 896 F.3d at 1345.

Although there is no single, inflexible rule for the abstract idea inquiry, our court has provided guidance as to what constitutes an abstract idea. We have explained that, first, “[t]he ‘abstract idea’ step of the inquiry calls upon us to look at the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a whole’ is directed to excluded subject matter.” *Affinity Labs*, 838 F.3d at 1257 (quoting *Elec. Power Grp.*, 830 F.3d at 1353) (other citations omitted). Once we identify the “focus of the asserted claims,” we may consider whether the claims “fall into a familiar class of claims ‘directed to’ a patent-ineligible concept.” *See Elec. Power Grp.*, 830 F.3d at 1353.

We have provided still further guidance for those “familiar class[es] of claims.” *See id.* For example, in the context of claims to results, we have explained that claims that “simply demand[] the production of a desired result . . . without any limitation on how to produce that result” are directed to an abstract idea. *Interval Licensing*, 896 F.3d at 1345. In the context of mental processes, such as that claimed by the ’042 application, we have explained that if a claim’s steps “can be performed in the human mind, or by a human using a pen and paper,” and the elements in the claim do not contain a sufficient inventive concept under *Alice/Mayo* step two, the claim is for a patent-ineligible abstract idea. *Ericsson Inc. v. TCL Commc’n Tech. Holdings Ltd.*, 955 F.3d 1317, 1327 (Fed. Cir. 2020) (quoting *Cyber-Source*, 654 F.3d at 1372). And we have explained that “[i]nformation as such is an intangible”; accordingly, “gathering and analyzing information of a specified content, then displaying the results” without “any particular assertedly inventive technology for performing those functions” is an abstract idea. *Elec. Power Grp.*, 830 F.3d at 1353–54. We have provided further guidance for “cases involving software innovations,” where the abstract idea “inquiry often turns on whether the claims focus on ‘the specific asserted improvement in computer capabilities . . . or, instead, on a process that qualifies as an “abstract idea” for which computers are invoked merely as a tool.’” *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d

1299, 1303 (Fed. Cir. 2018) (quoting *Enfish*, 822 F.3d at 1335–36).

Our case law also provides guidance as to “inventive concept,” particularly in the context of claims for computer implementations of abstract ideas. We have explained that claims for methods that “improve[] an existing technological process” include an inventive concept at step two. *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350–51 (Fed. Cir. 2016) (quoting *Alice*, 573 U.S. at 221, 223). And claims that “recite a specific, discrete implementation of the abstract idea” rather than “preempt[ing] all ways of” achieving an abstract idea using a computer may include an inventive concept. *Id.* at 1350. But claims to “an abstract idea implemented on generic computer components, without providing a specific technical solution beyond simply using generic computer concepts in a conventional way” do not pass muster at step two. *Id.* at 1352. “Neither ‘attempting to limit the use of [the idea] to a particular technological environment’ nor a ‘wholly generic computer implementation’ is sufficient.” *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1354 (Fed. Cir. 2014) (quoting *Alice*, 573 U.S. at 222, 223).

Even if we were persuaded by Mr. Killian’s argument that the *Alice/Mayo* framework is insolubly unclear, both this court and the Board would still be bound to follow the Supreme Court’s §

101 jurisprudence as best we can as we must follow the Supreme Court's precedent unless and until it is overruled by the Supreme Court. *See Rodriguez de Quijas v. Shearson/Am. Exp., Inc.*, 490 U.S. 477, 484 (1989).

B

Mr. Killian argues that comparing his case to other cases in which this court and the Supreme Court considered issues of patent eligibility under § 101 violates his due process rights because he had no opportunity to appear in those other cases. Appellant's Br. 64–66. We disagree.

Examination of earlier cases “is the classic common law methodology for creating law when a single governing definitional context is not available.” *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016) (citing Karl N. Llewellyn, *The Common Law Tradition: Deciding Appeals* (1960)). Indeed, the Supreme Court has decided cases arising under § 101 through comparison to its prior opinions. *Alice*, 573 U.S. at 221 (“[W]e need not labor to delimit the precise contours of the ‘abstract ideas’ category in this case. It is enough to recognize that there is no meaningful distinction between the concept of risk hedging in *Bilski* and the concept of intermediated settlement at issue here.”); *Bilski*, 561 U.S. at 609 (“Rather than adopting categorical rules that might have wide-ranging and unforeseen impacts, the Court

resolves this case narrowly on the basis of this Court’s decisions in *Benson*, *Flook*, and *Diehr*, which show that petitioner’s claims are not patentable processes because they are attempts to patent abstract ideas.”). In this case, nothing stops Mr. Killian from identifying any important distinctions between his claimed invention and claims we have analyzed in prior cases.

C

Mr. Killian next argues that the search for an “inventive concept” at the second step of the *Alice/Mayo* framework is improper because Congress did away with an “invention” requirement when it enacted the Patent Act of 1952. Appellant’s Br. 28–36. This argument is unpersuasive, because, as an initial matter, Mr. Killian has not even established the premise of his argument that “inventive concept” is the same thing as the “invention” requirement which he attributes to *Hotchkiss v. Greenwood*, 52 U.S. (11 How.) 248, 267 (1850). Unlike *Hotchkiss*, our *Alice/Mayo* precedent has never required, for an inventive concept inquiry, an examination of whether the “degree of skill and ingenuity” expressed in the claimed invention is beyond that possessed by one of ordinary skill in the art. *See id.* Furthermore, the Supreme Court has instructed that we are required, at step two, to look for an inventive concept. *Alice*, 573 U.S. at 217–18 (“We have described step two of this analysis as a search for an ‘inventive concept.’ ” (quoting *Mayo*,

566 U.S. at 72–73)). And, thus, search for an inventive concept we must. *See Rodriguez de Quijas*, 490 U.S. at 484.

D

Similarly, Mr. Killian argues that the “mental steps” doctrine has no foundation in modern patent law. Appellant’s Br. 46, 57–59. He asserts that, in *Diamond v. Diehr*, 450 U.S. 175 (1981), and *Bilski*, the Supreme Court repudiated that doctrine. Appellant’s Br. 46. This argument is plainly incorrect.

The Supreme Court has long held that mental steps fall within the patent-ineligible category of abstract ideas. For example, in *Benson*, the Supreme Court found ineligible claims directed to the conversion of binary-coded decimal numerals to pure binary numerals that “can be done mentally,” even though “[t]he method sought to be patented varies the ordinary arithmetic steps a human would use.” *Benson*, 409 U.S. at 67, 71–72. In *Mayo*, the Supreme Court more recently reiterated the judicial-exception standard from *Benson* that “[p]henomena of nature, though just discovered, *mental processes*, and abstract intellectual concepts are not patentable.” *Mayo*, 566 U.S. at 71 (emphasis added) (quoting *Benson*, 409 U.S. at 67).

The Supreme Court did not hold in *Diehr*, *Bilski*, or any other case that “steps performed in a computer are not ‘mental steps’ even if the steps

performed in the computer are identical to steps that could theoretically be performed by a human mind,” as Mr. Killian contends. Appellant’s Br. 46. In *Diehr*, the Supreme Court held that claims directed to a process for curing synthetic rubber that incorporated steps using a mathematical formula and a digital computer were patent eligible. *Diehr*, 450 U.S. at 177, 192–93. And the disagreement between the majority and the dissent was not over the status and scope of the mental steps doctrine, but over the essence of the claimed invention in the patent at issue. Compare *id.* at 193–94 (majority opinion), with *id.* at 205 (Stevens, J., dissenting). The majority described the claimed invention as “a process for curing synthetic rubber,” *id.* at 177 (majority opinion), while the dissent viewed the invention as “a method of using a digital computer to determine the amount of time that a rubber molding press should remain closed during the synthetic rubber-curing process,” *id.* at 208 (Stevens, J., dissenting). At bottom, *Diehr* did not comment on or overrule the mental steps doctrine. Nor has Mr. Killian pointed to any statement in *Bilski* that undermines a mental process as one of the judicial exceptions; after an independent review, we find nothing in that opinion to that effect.

Further, we are bound by our precedential decisions holding that steps capable of performance in the human mind are, without more, patent-ineligible abstract ideas. See, e.g., *Elec. Power Grp.*,

830 F.3d at 1355 (“[M]erely selecting information, by content or source, for collection, analysis, and display does nothing significant to differentiate a process from ordinary mental processes, whose implicit exclusion from § 101 undergirds the information based category of abstract ideas.”); *In re Comiskey*, 554 F.3d 967, 979 (Fed. Cir. 2009) (“[M]ental processes—or processes of human thinking—standing alone are not patentable even if they have practical application.”); *see also CyberSource*, 654 F.3d at 1372.

E

Mr. Killian argues that whether a claimed process is well-understood, routine, and conventional is necessarily a factual inquiry requiring the finder of fact to consult all evidence in the record. Appellant’s Br. 23. He refers to fifty five documents allegedly before the examiner and Board that he claims provide evidence of the patent eligibility of the ’042 application’s claims. *Id.* at 12; Appellant’s Reply Br. 12. And he asserts that the Patent and Trademark Office adjudges everything in its § 101 decisions “in an evidentiary vacuum” and that “[t]here is no substantial evidence on the record to support the present rejection.” Appellant’s Br. 63.

But as the Board in this case properly found, substantial evidence from Mr. Killian’s application supports its finding that the additional elements of

representative claim 1 do not add “a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which would be considered ‘something more’ than the judicial exception.” *Killian*, 2021 WL 363335, at *9. Specifically, the Board found that the additional elements of claim 1—beyond the abstract idea of determining entitlement to certain SSDI benefits—are “providing a computer processor and a computer readable media” and various references throughout the claim indicating that the steps are intended to be performed on a computer, such as “through the computer network,” “providing a caseworker display system,” and “electronic (data record).” *Id.* at *8. The Board, quoting the ’042 application’s specification, found that the claimed method “may be performed by any suitable computer system.” *Id.* at *8 (quoting J.A. 52 ¶ 42 and citing J.A. 52 ¶ 41). The Board explained that the “operations of storing, analyzing, receiving, and writing data are primitive computer operations found in any computer system.” *Id.* (citing *In re Katz Interactive Call Processing Pat. Litig.*, 639 F.3d 1303, 1316 (Fed. Cir. 2011)).

As the Supreme Court has explained, generic computer functions, performed on, as the application itself admits, any generic computer, do not provide an inventive concept. *Alice*, 573 U.S. at 223–24 (“[W]holly generic computer implementation is not generally the sort of ‘additional featur[e]’ that

provides any ‘practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.’ ” (quoting *Mayo*, 566 U.S. at 77)). Further, “[m]erely requiring the selection and manipulation of information—to provide a ‘humanly comprehensible’ amount of information useful for users, . . . by itself does not transform the otherwise-abstract processes of information collection and analysis.” *Elec. Power Grp.*, 830 F.3d at 1355. Thus, the requirements of the ’042 application’s claims that a generic computer perform steps of “creating an electronic data record,” “indicating in the electronic data record whether the person is receiving SSDI adult child benefits,” “providing a caseworker display system,” “generating a data collection input screen,” “indicating in the electronic data record whether the person is eligible for SSDI adult child benefits,” and similar generic data tasks are not a transformative inventive concept.

Because the ’042 application’s specification admits that the computer, which the Board correctly identified as the additional element of the claims, is well-understood, routine, and conventional, no further evidence is needed. *See Berkheimer v. HP Inc.*, 890 F.3d 1369, 1371 (Fed. Cir. 2018) (Moore, J., concurring in denial of rehearing en banc) (“Relying on the specification alone may be appropriate where, as in *Mayo*, the specification *admits* as much.” (citing *Mayo*, 566 U.S. at 79)).

Finally, while Mr. Killian refers, rather obliquely, to fifty-five documents allegedly presented to the examiner and the Board, Mr. Killian does not explain on appeal what specifically these fifty-five documents show, nor did he include them in the joint appendix. In his opening brief, Mr. Killian said about these documents only that “there are fifty-five separate documents of unquestioned veracity and efficacy entered into evidence that support Appellant’s position.” Appellant’s Br. 12. We find that Mr. Killian forfeited any argument on appeal based on those fifty-five documents by failing to present anything more than a conclusory, skeletal argument. *See SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1320 (Fed. Cir. 2006) (explaining that a party forfeits undeveloped arguments on appeal).

CONCLUSION

We have considered Mr. Killian’s remaining arguments and find them unpersuasive. For the foregoing reasons, we affirm the Board’s decision.

AFFIRMED

UNITED STATES PATENT AND TRADEMARK
OFFICE

BEFORE THE PATENT TRIAL AND APPEAL
BOARD

Ex parte JEFFREY A. KILLIAN

Appeal 2020-003680
Application 14/450,042
Technology Center 3600

Before MURRIEL E. CRAWFORD, HUBERT C.
LORIN, and MICHAEL L. WOODS, *Administrative
Patent Judges*.¹

CRAWFORD, *Administrative Patent Judge*.

DECISION ON REQUEST FOR REHEARING

STATEMENT OF THE CASE

The Appellant filed a Request for Rehearing
("Request"), pursuant to 37 C.F.R. § 41.52, on April

¹ The panel has changed because of the
unavailability of two judges who participated in the
original Decision.

1, 2021, seeking reconsideration of our Decision on Appeal mailed February 1, 2021 ("Decision"), in which we affirmed the Examiner's rejection of claims 1, 5-8, 12-15, 19, 20 and 22 under 35 U.S.C. § 101 as directed to an abstract idea without significantly more. We have jurisdiction over the Request under 35 U.S.C. § 6(b).

We note at the outset that a Request for Rehearing "must state with particularity the points believed to have been misapprehended or overlooked by the Board." 37 C.F.R. § 41.52(a). A Request for Rehearing is not an opportunity to rehash arguments raised in the Appeal Brief or in the Reply Brief. Neither is it an opportunity to merely express disagreement with a decision without setting forth points believed to have been misapprehended or overlooked. Arguments not raised in the briefs before the Board and evidence not previously relied on in the briefs also are not permitted except in the limited circumstances set forth in §§ 41.52(a)(2) through (a)(4). *Id.*

DISCUSSION

The Decision

To recap, in the Decision we determined, under Step 2A, Prong One of the *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50, 50-57 (2019) ("Guidance"), that the claims recite a method that specifies *a search algorithm for*

identifying people who may be eligible for SSDI benefits they are not receiving, which we determined could be performed mentally by a human. Decision 9. Turning to Prong Two of Step 2A of the Guidance, we found that, in addition to this abstract mental process, the claim recites additional elements, specifically steps (b) and (c) ("providing access," "generating a data collection input screen display," and "inputting"), steps (d) and (f) ("retrieving"), step (e) ("creating an electronic data record"), and step (h) ("indicating in the electronic data record"). *Id.* at 11-12. We concluded that steps (e) and (h) merely provide output of the results of the search algorithm, and are thus "output steps," and that the remainder of these "additional elements" are steps that involve "receiving data," and are thus "data gathering" steps. *Id.* at 12.

In addition, we stated:

Taking the claims as a whole, and setting aside the abstract idea steps and insignificant extra-solution activity, we are left with the non-insignificant (for purposes of Prong Two) "additional elements" of the claim The "additional elements" in claim 1 for use in Prong Two, therefore, are as follows:

- (a) providing a computer processor and a computer readable media;
- (g) ... through the computer network;

- (a) providing a caseworker display system;
- (c) ... electronic (data record)
- (e) ... electronic (data record).

Decision 12. Considering these "additional elements," we determined "the claimed method does not improve *another* technology," "does not define or rely on a 'particular machine,'" "does not transform matter[,] ... has no other meaningful limitations ... , and thus merely recites instructions to execute the recited judicial exceptions on a computer as a tool." *Id.* at 13. We concluded that, therefore, "based on the guidelines articulated in the Guidance and MPEP, we determine that claim 1 does not integrate the recited judicial exceptions into a 'practical application.'" *Id.*

At Step 2B, we considered whether alone or in combination any "additional elements" (which we stated included "'the data gathering and output elements" and "'a 'computer processor,' 'computer readable media,' 'computer network,' I] 'caseworker display system,' electronic form of data record on a computer, the access to and retrieval from electronic data storage records, and input of data into electronic data storage records") are not well understood, routine, conventional activity in the field and, thus, indicative of an inventive concept. *Id.* at 14. We decided that the "additional elements" merely involve "storing, analyzing, receiving, and writing data are primitive computer operations

found in any computer system," and that "claims involving data collection, analysis, and display are directed to an abstract idea." *Id.* at 14-15. Based on this, we did "not discern anything in claim 1 that provides an 'inventive concept,'" because these normal computer operations in the "additional elements" are well-understood, routine, and conventional. *Id.* at 15. Overall, we concluded "'the claims are directed to abstract: mental processes, which do not integrate the processes into a 'practical application,' and which do not recite an 'inventive concept'" *Id.*

Because the Appellant framed their arguments as directed to the three independent claims, we selected claim 1 as representative. Decision 6 (citing Appeal Br. 19-33).

*Section III (A)*²

The Appellant argues "the process as a whole, defined by each of the claims, cannot be performed by human thought alone and is therefore not an abstract idea." Request§ III(A).

Although we repeatedly cited to the "Guidance," the Appellant has misunderstood how we applied the analysis, established by our reviewing courts,

² The Appellant did not number the pages of the Request, so we will cite to the section numbers instead.

and articulated in the Guidance and our Decision. Rather than concluding that the *entire claim* is an abstract mental process, we separated the claim into those specific limitations that make up what we determined was an abstract mental process. Decision 7-11. We specifically identified the (d) selecting³ and (g) determining limitations as the abstract mental process. *Id.* at 7-8.

Separately, we identified all the "additional elements," *outside* of the abstract mental process, that are recited in the claim. *Id.* at 11-12. We considered the "additional elements," *apart* from the abstract mental process, to determine that they did not, alone or in combination, "integrate the [abstract] processes into a 'practical application,'" or "recite an 'inventive concept,'" according to the language of the Guidance. Decision 15.

We thus considered claim 1 as a whole, characterized it as reciting both one mental "abstract idea" and several "additional elements," and considered all of these, concluding the claim as a whole was directed to an abstract idea. *Id.* We did not conclude that everything in the claim is an abstract mental process, and did not "disregard[] other important physical claim limitations," or

³ There are two (d) limitations in the claim. We refer in this instance to the first.

"overlook[] most of the claimed limitations that require actual physical steps," as argued. Request § III(A).

Section III(B)

The Appellant contends the claimed method "solves a longstanding problem," is "specific," "defines a significant improvement to the field of **SSDI** benefits," "overcomes all the inherent problems of the prior art," "define[s] a practical solution," "improve[s] the Administering Agency computer function," "solved a business problem," is "new and nonobvious," and will save money, "avoid overpayments," and "rightly award the overlooked person their monthly **SSDI** benefits." Request § **III(B)**. The Appellant concludes, "[A] process that corrects working professionals and experts, reconciles State and Federal law, and awards the rightful parties their overlooked Federal benefits must be more than insignificant post solution activity, it is Congressional intent. The claimed process is a practical application to achieve the preceding results." *Id.* The Appellant contends that because in using the claimed method "results are produced, "the claimed method is not "simply gathering data for random analysis." *Id.* The Appellant also notes "[t]he Board did not provide any examples of case law where, even though the novel claimed inventive concept produced significant beneficial results, the court still found the claim

limitations as insignificant post solution activity."
Id.

We do not dispute that the application of the method of claim 1 may have numerous benefits, and that this may represent both a "practical application" and an "inventive concept" when relying on the colloquial meanings of those terms.

However, as we noted in our Decision, the concepts of "practical application," "inventive concept," and "insignificant extra-solution activity" are specific legal concepts, articulated in the body of case law emanating from the Court of Appeals for the Federal Circuit, and the Supreme Court, and *explained* in the Manual of Patent Examining Procedure ("MPEP") and the Guidance. Decision 3-6. In an analysis under Section 101 for subject matter eligibility, these terms have more specific meanings than in their colloquial use. The benefits that may accrue when performing a claimed abstract method do not alter the outcome, that such a claim nonetheless is directed to an abstract idea under current § 101 law. *See, for example, In re Mahapatra*, No. 2020-1935, 2021 WL 408755, at *3 (Fed. Cir. Feb. 5, 2021) (non-precedential):

A claim does not cease to be abstract for section 101 purposes simply because the claim confines the abstract idea to a particular technological environment in order to effectuate a real-world benefit. *See Alice*, 573

U.S. at 222, 134 S.Ct. 2347; *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1287 (Fed. Cir. 2018); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1353 (Fed. Cir. 2014).

We also note that the ultimate outcome of the main body of the method is "indicating in the electronic data record whether the person is receiving SSDI adult child benefits or is not receiving SSDI adult child benefits," and under some conditions "indicating in the electronic data record whether the person is eligible for SSDI adult child benefits or is not eligible for SSDI adult child benefits," but the method does not by itself necessarily lead to many of the benefits the Appellant advances. This is because those benefits rely on other steps being taken in addition to, and beyond the scope of, the claimed method. For example, dependent claim 5 recites "notifying a caseworker ... wherein the caseworker applies for **SSDI** benefits on behalf of the at least one person." Applying for those benefits, alone, does not necessarily "save State and Federal governments millions of dollars in erroneously paid Medicaid dollars, avoid overpayments of **SSDI** dollars to family members and rightly award the overlooked person their monthly **SSDI** benefits," as contended. Request§ **III(B)**. Rather, changes that take place as a result of that filing are necessary, but are not part of the method.

Section III(C)

The Appellant argues our "Decision does not specifically address and review important claim limitations that are found in the dependent claims for purposes of subject matter eligibility under 35 U.S.C. § 101." Request § III(C).

In the Appeal Brief, the only argument that specifically involves language of dependent claims is advanced at the section addressing Step 2B, and states:

Lastly, Claims 7, 14, and 20, recite discrete limitations/elements that further distance the claims from merely reciting the abstract idea of determining eligibility for **SSDI**. For example, Claim 7, 14, and 20 provides a periodical lifetime review and monitoring of electronic records indicated as not eligible for **SSDI**. The Appellant's claimed process provides the concrete steps of periodically monitoring the parents' Social Security status which is a non-conventional and non-generic arrangement of elements/limitations beyond merely reciting limitations of the alleged abstract idea of determining eligibility for **SSDI**, as these parents may not be eligible themselves for Social Security benefits for decades.

Appeal Br. 34.

We did not think that the claims recited the "abstract idea of determining eligibility for **SSDI**," so we did not, in the Decision, view this argument as

particularly relevant. Also, merely asserting, indirectly, that claims 7, 14, and 20 were "concrete," and "a non-conventional and nongeneric arrangement" did not persuade us to alter our conclusion for these three claims.

Taking claim 7 as an example, the claim recites "periodic reviews" that encompass five additional steps involving "(a) ... identifying," "(b) inputting," "(c) retrieving," "(d) determining," and "(e) indicating" information and potential eligibility. The "identifying" and "determining" limitations can be performed mentally, like the mental process steps of claim 1. The "inputting" and "retrieving" steps are data gathering steps, and do not affect the outcome of the § 101 analysis. The "indicating" is an output step, and is also insignificant extra solution activity, in that it merely provides the output of the "determining" step. Thus, claim 7 does not represent steps that create eligible subject matter, and the Appellant has not pointed to any argument made that would do so under the abstract mental process determination we made in our Decision.

The Appellant has not identified, nor do we find, any other dependent claims which were argued with specificity. *See* Appeal Br. 18-37, Reply Br. 3-8. As we said before, arguments which the Appellant could have made, but chose not to make, in the Briefs have not been considered, and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Conclusion

The Appellant has not demonstrated that we misapprehended or overlooked any points. For this reason we deny the Request.

DECISION SUMMARY

Outcome of Decision on Rehearing:

Claim(s)	35 U.S.C. §	Reference(s) / Basis	Denied	Granted
1, 5-8, 12-15, 19, 20, 22	101	Eligibility	1, 5-8, 12-15, 19, 20, 22	

Final Outcome of Appeal after Rehearing:

Claim(s)	35 U.S.C. §	Reference(s) / Basis	Denied	Granted
1, 5-8, 12-15, 19, 20, 22	101	Eligibility	1, 5-8, 12-15, 19, 20, 22	

DENIED

UNITED STATES PATENT AND TRADEMARK
OFFICE

BEFORE THE PATENT TRIAL AND APPEAL
BOARD

Ex parte JEFFREY A. KILLIAN

Appeal2020-003680
Application 14/450,042
Technology Center 3600

Before MURRIEL E. CRAWFORD, PHILIP J.
HOFFMANN, and BRADLEY B. BAYAT,
Administrative Patent Judges.

CRAWFORD, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1, 5-8, 12-15, 19, 20, and 22. We have jurisdiction under 35 U.S.C. § 6(b).

¹ We use the term "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Jeffrey A. Killian. Appeal Br. 3.

We AFFIRM and designate our affirmance a *new ground of refection* under 37 C.F.R. § 41.50(b).

CLAIMED SUBJECT MATTER

The claims are directed to an automated social security eligibility transmittal system. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A computerized method for determining overlooked eligibility for social security disability insurance (SSDI)/adult child benefits through a computer network, the method comprising the steps of: (a) providing a computer processor and a computer readable media;

- (b) providing access to a Federal Social Security database through the computer network, wherein the Federal Social Security database provides records containing information relating to a person's status of SSDI adult child benefits and/or parental and/or marital information relating to SSDI adult child benefit eligibility;

- (c) providing access to a State database through the network, wherein the State database provides records containing information relating to persons receiving treatment for developmental disabilities and/or mental illness from a State licensed care facility;

(d) selecting at least one person from the State database who is identified as receiving treatment for developmental disabilities and/or mental illness;

(e) creating an electronic data record comprising information relating to at least the identity of the person and social security number, wherein the electronic data record is recorded on the computer readable media;

(f) retrieving the person's Federal Social Security record containing information relating to the person's status of SSDI adult child benefits through the network;

(g) determining whether the person is receiving SSDI adult child benefits based on the SSDI status information contained within the Federal Social Security database record through the computer network;

(h) indicating in the electronic data record whether the person is receiving SSDI adult child benefits or is not receiving SSDI adult child benefits;

for at least one electronic data record of persons indicated as not receiving SSDI adult child benefits, comprising the steps of:

(a) providing a caseworker display system;

(b) generating a data collection input screen display to the caseworker display system relating

to the electronic data record of persons indicated as not receiving SSDI adult child benefits;

(c) caseworker identifying and inputting parental and/or marital names and Social Security numbers into the electronic data record of the person indicated in the electronic data record as not receiving SSDI adult child benefits;

(d) retrieving parental and/or marital Social Security record(s) from the Federal Social Security database through the computer network in order to identify information for determining eligibility for SSDI adult child benefits;

(e) determining whether the person indicated in the electronic data record is eligible for receiving SSDI adult child benefits based on the identified information for determining eligibility of SSDI adult child benefits and current SSDI benefit legal requirements; and

(f) indicating in the electronic data record whether the person is eligible for SSDI adult child benefits or is not eligible for SSDI adult child benefits.

REJECTION

The Examiner rejects claims 1, 5-8, 12-15, 19, 20, and 22 under 35 U.S.C. § 101 as being directed to ineligible subject matter.

OPINION

An invention is patent-eligible if it claims a "new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: "[l]aws of nature, natural phenomena, and abstract ideas" are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int 'l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court's two-step framework, described in *Mayo* and *Alice*. *Id.* at 217-18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75-77 (2012)). In accordance with that framework, we first determine what concept the claim is "directed to." *See Alice*, 573 U.S. at 219 ("On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk."); *see also Bilski v. Kappas*, 561 U.S. 593, 611 (2010) ("Claims 1 and 4 in petitioners' application explain the basic concept of hedging, or protecting against risk.").

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219-20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v.*

Flook, 437 U.S. 584, 594-95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)).

Concepts determined to be patent eligible include physical and chemical processes, such as "molding rubber products" (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); "tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores" (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267-68 (1854))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that "[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula." *Diehr*, 450 U.S. at 176; *see also id.* at 191 ("We view respondents' claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula."). Having said that, the Supreme Court also indicated that a claim "seeking patent protection for that formula in the abstract ... is not accorded the protection of our patent laws, ... and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment." *Id.* (citing *Benson* and *Flook*); *see, e.g., id.* at 187 ("It is now commonplace that an *application* of a law of nature or mathematical formula to a known

structure or process may well be deserving of patent protection.").

If the claim is "directed to" an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where "we must examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent eligible application." *Alice*, 573 U.S. at 221 (quotation marks omitted). "A claim that recites an abstract idea must include 'additional features' to ensure 'that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].'" *Id.* (quoting *Mayo*, 566 U.S. at 77). "[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention." *Id.*

The PTO published revised guidance on the application of § 101. *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Guidance"). Under the Guidance, we first look to whether the claim recites:

- (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and
- (2) additional elements that integrate the judicial exception into a practical application (*see*

Manual of Patent Examining Procedure
("MPEP") § 2106.05(a)-(c), (e)-(h).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look to whether the claim:

(3) adds a specific limitation beyond the judicial exception that is not "well-understood, routine, conventional" in the field (*see* MPEP § 2106.05(d)); or

(4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

See Guidance.

Prong One of Revised Step 2A of the Guidance

The Appellant argues independent claims 1, 8, and 15 together as a group. Appeal Br. 19-33. We select claim 1 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

The claimed invention is titled an "AUTOMATED SOCIAL SECURITY ELIGIBILITY TRANSMITTAL SYSTEM." Spec. 1. The Specification states that the "present invention pertains to ... a system and method which is used for determining eligibility for Social Security Disability Insurance benefits through a computer network." Spec. , ¶ 2; *see also id.* ¶ 10 ("a computerized method and system for determining the eligibility for Social

Security Disability Insurance benefits"), ¶¶ 11-14 ("method for determining [the] eligibility for Social Security Disability Insurance benefits"), ¶ 34 ("a system for automated Social Security eligibility"). The preamble of claim 1, currently and in its original form, is a "computerized method for determining overlooked eligibility for social security disability insurance (SSDI)/adult child benefits through a computer network." The penultimate step of claim 1, in the first set of recited steps within the claim, recited immediately prior to "indicating" the results, is "determining whether the person is receiving SSDI adult child benefits based on the SSDI status information contained within the Federal Social Security database record through the computer network." In claim 1, if the person is determined to *not* be receiving benefits, the method then further recites "determining whether the person indicated in the electronic data record is eligible for receiving SSDI adult child benefits based on the identified information for determining eligibility of SSDI adult child benefits and current **SSDI** benefit legal requirements." The Examiner states "method claim 1 is directed to an abstract idea of determining eligibility for social security disability insurance (**SSDI**) benefits." Final Act. 3 (emphasis omitted).

The Appellant's arguments begin with the contention that the "claimed process is not *merely* 'the concept of determining eligibility for Social

Security Disability Insurance benefits (hereinafter '**SSDI**') as specifically recited by the Examiner, but *identifies overlooked individuals* who are currently eligible for **SSDI**. . . relating to persons receiving treatment for developmental disabilities and/or mental illness from a State licensed care facility." Appeal Br. 18 (emphasis added). We agree.

Claim 1 recites steps for "selecting at least one person ... who is identified as receiving treatment," and "determining whether the person is receiving SSDI adult child benefits." The "determining" step is described in the Specification as follows: "In step 520, process 500 determines whether the selected person is either receiving SSDI or not receiving SSDI based on the SSDI status information contained within the Federal Social Security database record through the computer network. The determination is programmed to be automatically determined by the system." Spec. ¶ 64 (cited at Appeal Br. 8). The "determining" is thus accomplished by "determining," according to the Specification. No additional detail is set forth about the determining. However, it is clear from the description that the determining is essentially looking at a list to see if the person's name, or other identifying information, is on it. A second set of steps in claim 1 is performed *only* for "persons indicated as not receiving SSDI adult child benefits," and is thus a set of steps that are performed only on that *condition*. In that set of

steps, the second "determining" step recites "determining whether the person indicated in the electronic data record is eligible for receiving SSDI adult child benefits based on the identified information for determining eligibility of SSDI adult child benefits and current SSDI benefit legal requirements." The Specification describes this step as follows:

Once all available information is collected and the persons record has been updated, process 600 determines in step 630 whether the person is eligible for receiving SSDI benefits based on the identified information for determining eligibility of SSDI benefits contained in the person's data record and current SSDI benefit law and legal requirements.

Spec. ¶ 70 (cited at Appeal Br. 9). The second determining step thus is also accomplished by "determining."

The Specification describes that:

States have not been able to develop and maintain efficient processes in order to maximize Social Security Disability Insurance recovery. What is lacking from State efforts is a timely process that determines who is not currently receiving monthly Social Security Disability Insurance benefits, who has been overlooked to receive Social Security Disability Insurance benefits on a current basis, what steps are

needed to secure the current monthly Social Security Disability Insurance benefits, and a process that constantly monitors the new eligibility status for future monthly Social Security Disability Insurance benefits.

Spec. ¶ 8.

For individuals who are identified as receiving treatment, and identified as *not* receiving **SSDI** benefits, but *eligible* for those benefits, the Specification describes that "the caseworker applies for **SSDI** benefits on behalf of the eligible person." *Id.* ¶ 70.

The Specification is silent on what happens after **SSDI** benefits have been applied for. We interpret the determination of eligibility described to *not* be outcome determinative for whether the person actually will receive those benefits, because we assume this determination is outside the scope of the claims, and made by the US Social Security Administration. *See* Spec. ¶ 6. We thus construe the second claimed determining step to be a *prediction* of eligibility.

Claim 1 is thus not a method of "determining eligibility," as the Examiner finds (Final Act. 3), but instead is *a search algorithm for identifying people who may be eligible for SSDI benefits they are not receiving*. Though the claim performs a brute force search, ² it is limited to people who are "receiving treatment for developmental disabilities and/or

mental illness," and only those receiving treatment "from a State licensed care facility," according to claim 1. This is consistent with the Appellant's characterization of the claimed invention. *See* Appeal Br. 18 ("Appellant's claimed process ... identifies overlooked individuals who are currently eligible for SSDI"); Reply Br. 3 ("a specific step by step method, system, and product which identifies overlooked SSDI benefits relating to persons receiving treatment for developmental disabilities and/or mental illness from a State licensed care facility"). To that end, claim 1 recites these steps that are essential to this purpose:

(d) selecting at least one person from the State database who is identified as receiving treatment for developmental disabilities and/or mental illness;

(g) determining whether the person is receiving SSDI adult child benefits based on the SSDI status information contained within the Federal Social Security database record . . . ; for at least one . . . data record of persons indicated as not receiving SSDI adult child benefits, comprising the steps of:

(c) caseworker identifying ... parental and/or

² *See*, for example, https://en.wikipedia.org/wiki/Brute-force_search.

marital names and Social Security numbers ... of the person ... ;

(e) determining whether the person indicated in the . . . data record is eligible for receiving SSDI adult child benefits based on the identified information for determining eligibility of SSDI adult child benefits and current SSDI benefit legal requirements.

These steps can be performed by a human, using "observation, evaluation, judgment, [and] opinion," because they involve making determinations and identifications, which are mental tasks humans routinely do. Guidance at 52; *see also CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) ("a method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101"). As such, claim 1 recites an abstract mental process.

Guidance at 52.

Neither the Appellant nor the Examiner contemplate on the record that the claim recites an abstract mental process. *See, generally*, Final Act 3-8; Answer 3-14; Appeal Br. 18-37; Reply Br. 3-8. Therefore, because our determination of the nature of the abstract idea recited by the claim differs from that of the Examiner, we designate our affirmance a *new ground of rejection*,

Prong Two of Revised Step 2A of the Guidance

Turning to the next step in the Guidance, we determine if the claimed method is integrated into a "Practical Application." Guidance at 54. We use the term "additional elements" for "claim features, limitations, and/or steps that are recited in the claim beyond the identified judicial exception." *See* Guidance at 55 n.24.

Claim 1 recites several data gathering steps and portions of steps in the always-performed steps:

(b) providing access to a Federal Social Security database through the computer network, wherein the Federal Social Security database provides records containing information relating to a person's status of SSDI adult child benefits and/or parental and/or marital information relating to SSDI adult child benefit eligibility;

(c) providing access to a State database through the network, wherein the State database provides records containing information relating to persons receiving treatment for developmental disabilities and/or mental illness from a State licensed care facility;

(f) retrieving the person's Federal Social Security record containing information relating to the person's status of **SSDI** adult child benefits through the network.

The claim also recites several data gathering steps in the conditionally-performed steps:

(b) generating a data collection input screen display to the caseworker display system relating to the electronic data record of persons indicated as not receiving SSDI adult child benefits;

(c) caseworker identifying and inputting parental and/or marital names and Social Security numbers into the electronic data record of the person indicated in the electronic data record as not receiving SSDI adult child benefits;

(d) retrieving parental and/or marital Social Security record(s) from the Federal Social Security database through the computer network in order to identify information for determining eligibility for SSDI adult child benefits.

In addition, several steps in both parts of the claim recite steps that amount to the output of results:

(e) creating an electronic data record comprising information relating to at least the identity of the person and social security number, wherein the electronic data record is recorded on the computer readable media;

(h) indicating in the electronic data record whether the person is receiving SSDI adult child benefits or is not receiving SSDI adult child benefits.

The first two sets of limitations involve receiving data, and is thus a data gathering step. *See Bilski v. Kappas*, 545 F.3d 943, 963 (Fed. Cir. 2008) (*en*

bane), *ajfd sub nom Bilski v. Kappas*, 561 U.S. 593 (2010) (characterizing data gathering steps as insignificant extra-solution activity). Similarly, the "creating" and "indicating" are output steps, are appropriately categorized as insignificant extra-solution activity. *See Bilski v. Kappas*, 561 U.S. at 610-11; *see also* Guidance at 55.

Taking the claims as a whole, and setting aside the abstract idea steps and insignificant extra-solution activity, we are left with the non-insignificant (for purposes of Prong Two) "additional elements" of the claim. *Id.* at 55, n.24, n. 31. The "additional elements" in claim 1 for use in Prong Two, therefore, are as follows:

- (a) providing a computer processor and a computer readable media;
- (g) ... through the computer network;
- (a) providing a caseworker display system;
- (c) ... electronic (data record)
- (e) ... electronic (data record).

Continuing the analysis, we note the method, at least according to the Specification, "pertains to ... determining eligibility for Social Security Disability Insurance benefits through a computer network" (Spec. ¶ 2), or, as we surmise, is "a search algorithm for identifying people who may be eligible for SSDI benefits they are not receiving" (see above at Step 2A). As such, the claimed method does not improve

another technology, because any improvement recited by the claims concerns improvements to determining eligibility for SSDI benefits, via the claimed search algorithm. Guidance at 55; *see also* MPEP § 2106.05(a). The Specification describes that the claimed method "may be performed by any suitable computer system." Spec. ¶ 42 (cited at Appeal Br. 7); *see also* Spec. ¶ 41 ("exact configuration and device connected to the processing system in each individual device in the network may vary"). Because a particular computer is not required for the method, the claim also does not define or rely on a "particular machine." Guidance at 55; *see also* MPEP § 2106.05(b). Further, the method does not transform matter. Guidance at 55; *see also* MPEP § 2106.05(c). The method has no other meaningful limitations (MPEP § 2106.05(e)), and thus merely recites instructions to execute the recited judicial exceptions on a computer as a tool (MPEP § 2106.05(e). Guidance at 55; *see also* Spec. ¶ 10 ("a computerized method and system for determining the eligibility for Social Security Disability Insurance benefits through a computer network which is automated, easy to use, and efficient - which saves time and State and Federal funds").

As such, based on the guidelines articulated in the Guidance and MPEP, we determine that claim 1 does not integrate the recited judicial exceptions into a "practical application."

Step 2B of the Guidance

In Step 2B, we consider whether an "additional element," or combination of "additional elements," adds a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which would be considered "something more" than the judicial exception. Guidance at 56.

However, in claim 1, the "additional elements," including the data gathering and output elements, are a "computer processor," "computer readable media," "computer network," "caseworker display system," electronic form of data record on a computer, the access to and retrieval from electronic data storage records, and input of data into electronic data storage records.

The operations of storing, analyzing, receiving, and writing data are primitive computer operations found in any computer system. *See In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1316 (Fed. Cir. 2011) ("Absent a possible narrower construction of the terms 'processing,' 'receiving,' and 'storing,' discussed below, those functions can be achieved by any general purpose computer without special programming."). As to the data operated upon, "even if a process of collecting and analyzing information is 'limited to particular content' or a particular 'source,' that limitation does not make the collection and analysis other than

abstract." *SAP Am. Inc. v. InvestPic LLC*, 898 F.3d 1161, 1168 (Fed. Cir. 2018). *Also see Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378 (Fed. Cir. 2017) (holding that considering claims reciting data retrieval, analysis, modification, generation, display, and transmission as an "ordered combination" reveals that they "amount to 'nothing significantly more' than an instruction to apply [an] abstract idea" using generic computer technology).

Further, implied in the Examiner's citation to the case at page 5 of the Final Action to "Electric Power Group," claims involving data collection, analysis, and display are directed to an abstract idea. *Elec. Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (holding that "collecting information, analyzing it, and displaying certain results of the collection and analysis" are "a familiar class of claims 'directed to' a patent-ineligible concept").

Therefore, we do not discern anything in claim 1 that provides an "inventive concept."

For these reasons, we agree that the claims are directed to abstract mental processes, which do not integrate the processes into a "practical application," and which do not recite an "inventive concept."

The Appellant's Arguments

We have considered the Appellant's arguments. They primarily extol the benefits of the claimed method (Appeal Br. 18-22, 24), contend the Examiner failed to provide reasoning or a prima facie case (*id.* at 20, 23-25), assert the claims are not mathematical concepts, or certain methods of organizing human activity (*id.* at 23-25), and recite "concrete steps" (*id.* At 26-27). *See also* Reply Br. 3-8.

These arguments are unpersuasive because they are not responsive to our new characterization of the claims as reciting abstract *mental processes*, or because we have addressed them in the above analysis.

The Appellant also argues the "Examiner has not provided a prima facie case or identified support showing that the recited claim elements are well-understood, routine, or conventional." Appeal Br. 28 (citing *Berkheimer v. HP Inc.*, 881 F.3d 1360 (Fed. Cir. 2018)). Similar arguments about the novelty and non-routine nature of the claims continue at pages 28-36.

None of these arguments are persuasive, because they misunderstand the holding *Berkheimer*, and of the "inventive concept" in subject matter eligibility. Even unconventional abstract ideas are still unpatentable. *See SAP America, Inc. v. Investpic, LLC*, 890 F.3d 1016, 1018 (Fed. Cir. 2018). "What is needed is an inventive concept in the non-abstract

application realm." *SAP Am.*, 898 F.3d at 1168. *See also Mayo*, 566 U.S. at 90 (holding that a novel and nonobvious claim directed to a purely abstract idea is, nonetheless patent-ineligible); and *Synopsys Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016) ("[A] claim for a new abstract idea is still an abstract idea.") (emphasis omitted). As to the Appellant's argument that the claims "reflect an improvement in the functioning of the computer network of the Social Security Administration" and "improve ... computer function" (Appeal Br. at 26), the difficulty with Appellant's position is that these are not technological improvements or improvements to a technological area. The alleged improvement lies in the abstract idea itself, not to any technological improvement. *See BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1287-88 (Fed. Cir. 2018). The alleged improvements identified by Appellant does not "enable[] a computer ... to do things it could not do before." *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1305 (Fed. Cir. 2018). Indeed, "[t]he [S]pecification is silent as to any specific structural or inventive improvements in computer functionality related to this claimed system." *See Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1365 (Fed. Cir. 2020).

For these reasons, we sustain the Examiner's rejection under Section 101.

CONCLUSION

The Examiner's decision to reject claims 1, 5-8, 12-15, 19, 20, and 22 under 35 U.S.C. § 101 as ineligible subject matter is AFFIRMED.

In summary:

Claim(s)	35 USC §	Basis	Affirmed	Reversed
1, 5-8, 12-15, 19, 20, 22	101	Ineligibility	1, 5-8, 12-15, 19, 20, 22	

TIME PERIOD FOR RESPONSE

This decision contains new grounds of rejection pursuant to 37 C.F.R. § 41.50(b) (2008). 37 C.F.R. § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 C.F.R. § 41.50(b) also provides that the Appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new Evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the prosecution will be remanded to the examiner. ...

(2) Request rehearing. Request that the proceeding be reheard under § 41.52 by the Board upon the same Record

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED
37 C.F.R. § 41.50(b)

NOTE: This order is nonprecedential.

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

IN RE: JEFFREY A. KILLIAN,
Appellant

2021-2113

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. 14/450,042.

ON PETITION FOR REHEARING EN BANC

Before MOORE, Chief Judge, NEWMAN, LOURIE, CLEVINGER¹, DYK, PROST, REYNA, TARANTO, CHEN, HUGHES, STOLL, CUNNINGHAM, and STARK, *Circuit Judges*.

PER CURIAM.

ORDER

Jeffrey A. Killian filed a petition for rehearing en banc. The petition was first referred as a petition for

¹ Circuit Judge Clevenger participated only in the decision on the petition for panel rehearing.

rehearing to the panel that heard the appeal, and thereafter the petition for rehearing en banc was referred to the circuit judges who are in regular active service.

Upon consideration thereof,

IT IS ORDERED THAT:

The petition for panel rehearing is denied.

The petition for rehearing en banc is denied.

The mandate of the court will issue December 27, 2022.

FOR THE COURT

December 20, 2022

Date

/s/ Peter R. Marksteiner

Peter R. Marksteiner
Clerk of Court

**EXCERPTS FROM APPELLANT'S/PETITIONER'S
CORRECTED OPENING BRIEF**

{{pp. 5 et seq.}}

I. Procedural History

The Final Office Action

The present claims are solely rejected under the alleged *Alice-Mayo* precedent. Present Counsel says “alleged” because there is nothing in any of the Supreme Court’s *Alice Corp. (Alice Corp. PTY. Ltd. v. CLS Bank Int’l*, 573 U.S. 208 (2014)), *Bilski (Bilski v. Kappos*, 561 U.S. 593 (2010)), or *Mayo (Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012)) decisions that justifies the rejection. The present claims pass the statutory provisions under Title 35 U.S.C. § 101, Title 35 U.S.C. § 102, Title 35 U.S.C. § 103, and Title 35 U.S.C. § 112 as well as any test that the Supreme Court has devised in the last forty years.

The first series of errors start with a June 29, 2018, final Office Action where the Examiner states one truth followed by four fictions. Specifically, on pages 3-5 of the final Office Action (Appx135-137), the Examiner correctly states that the claims are directed to *<a verbatim recitation of independent claim 1>* followed by the falsehood that the limitations just recited are “routine, conventional, and well understood.”

How can one assess the Examiner is stating a falsehood? Because there is no evidence. In fact, the complete absence of any § 102 or § 103 rejection is conclusive indicia that the claim limitations as a whole, ordered combination are not well-understood, not routine, and not conventional. How, for example, can something that has never been seen or done before under §§ 102/103 be routine or conventional under § 101?

Turning to the second falsehood, the Examiner reduces the more than five-hundred words of independent claim 1 to meaninglessness stating that “[t]he claim amounts to *no more* than determining eligibility for social security disability insurance (SSDI) benefits” (emphasis added). A Rembrandt can be described as paint on a substrate, but to say that such a painting is “no more” than paint on a substrate is disingenuous. Applicant observes that it is not until the Examiner’s Answer (page 6 (Appx138)) that the Examiner asserts that claim 1 is being directed to “determining eligibility for Social Security Disability Insurance benefits.”

Turning to the third falsehood, the Examiner likens the instant claims to the claims in *Alice Corp.* and *Bilski* “because they describe concepts relating to intrapersonal and interpersonal activities” The problem with this statement is that the claims in *Alice Corp.* and *Bilski* were held patent ineligible because the underlying claims limitations (sans computer) were vastly old and well-established in

the business community – not because the underlying claims limitations were “concepts relating to intrapersonal and interpersonal activities.”

The fourth falsehood starts at the bottom of page 5 (Appx137) where the Examiner states that the additional elements are simply a generic recitation of a processor performing its generic computer functions. While Appellant does not contest that a generic computer may be used and does not figure into patent eligibility under *Alice-Mayo*, the underlying process (sans computer) is novel and non-obvious. Page 6 (Appx138) of the final Office Action is a repeated recitation of the claim at issue accompanied by nothing more than unsupported assertions (i.e., no evidence) that the Examiner knows are false because the Examiner could not produce a § 102 rejection of even a strained § 103 rejection.

Finally, the Examiner (page 7 (Appx139)) states that the claims contain no “inventive concept.” However, there is no way any examiner can make such an assessment as the term “inventive concept” is a meaningless nonce word that judges and examiners use when they want a capricious veto of a patent claim but don’t have evidence to invalidate the claim under § 102 or § 103 of the Patent Law, or any informalities to invalidate the claim under § 112 of the Patent Law. In fact, completely missing from the final Office Action is the word “evidence.”

Appellant then appealed to the PTAB.

The Board's Decision

On page 7 (Appx17) of the February 1, 2021, Decision, the Board states, “[t]he Appellant's arguments begin with the contention that the “claimed process is not *merely* ‘the concept of determining eligibility for Social Security Disability Insurance benefits (hereinafter ‘SSDI’) as specifically recited by the Examiner, but *identifies overlooked individuals* who are currently eligible for **SSDI** . . . relating to persons receiving treatment for developmental disabilities and/or mental illness from a State licensed care facility. . . . We agree.” The problem now is that the Board fails to identify exactly what the claim is directed to. The Board’s use of ellipses is inappropriate and confusing, and Appellant should not be subjected to a guessing game.

Never once does the Board cite an iota of evidence that a single limitation is known much less well-known, routine, and conventional. Never once does the Board cite an iota of evidence that the claim limitations as a whole, ordered combination are well-known, routine, and conventional. Where, for example, does the Board cite evidence that the limitation of “determining whether the person indicated . . . based on the identified information for determining eligibility of SSDI adult child benefits and current SSDI benefit legal requirements” has ever been performed? It is to be appreciated that, as

with the Examiner's final Office Action, the Board's Decision never uses the word "evidence" in its analysis.

The Board (page 10 (Appx21)) later states that, "[n]either the Appellant nor the Examiner contemplate on the record that the claim recites an abstract mental process" citing *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011). After the Board's discussion of reasons to ignore claim limitations, the Board (page 13 (Appx24)) states that "the claimed method does not improve another technology, *because any improvement recited by the claims concerns improvements to determining eligibility for SSDI benefits, via the claimed search algorithm*" (emphasis added).

By all appearances, the Board admits that the claims are directed to an improvement of the technology of "determining eligibility for SSDI benefits."

The Board then engages in a discussion as to why processing on a generic computer can never result in a claim that is patent eligible by cherry-picking Federal Circuit cases while omitting conflicting case such as *Berkheimer v. HP*, 881 F.3d 1360 (Fed.Cir. 2018), *DDR Holdings v. Hotels.com*, 773 F.3d 1245 (Fed.Cir. 2014), *Trading Technologies v. CQV, Inc.*, 675 F. Appx 1001 (Fed. Cir. 2017), *McRO v. Bandai*, 837 F.3d 1299 (Fed. Cir. 2016), and *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327

(Fed. Cir. 2016), as well as the Supreme Court's *Diamond v. Diehr*, 405 U.S. 175 (1981).

Continuing, on page 15 (Appx16) the Board concludes that the claims do not result into a "practical application" (even though the claims certainly do provide a practical outcome) and do not recite an "inventive concept" (even though the term "inventive concept" has never been defined by any court in the United States).

While on page 16 (Appx27) the Board states, "[n]one of Appellant's arguments are persuasive, because they misunderstand the holding *Berkheimer*, and of the 'inventive concept' in subject matter eligibility." However, the Board fails to inform Appellant as to what exactly Appellant's "misunderstanding" is and fails to inform Appellant what an "inventive concept" is. Appellant is left to guess. However, Appellant is quite sure that *Berkheimer* stands for the idea that whether claims are well-understood, routine, and conventional is an issue of fact requiring evidence. See Appellant's Appeal Brief at pages 28-29 (Appx123-124).

The true irony, however, is that the Board took every effort to evade its burden of evidence. Specifically, as is stated on page 18 of Appellant's Appeal Brief (Appx113), Appellant had previously filed a mountain of evidence while asserting:

"The claimed approach defines a significant improvement to the technological field of **SSDI** benefits as evidenced by the Medicaid

applications from all 50 states, the Social Security benefit application, the Social Security benefit handbook and the two university studies submitted to the record on June 10th, 2017. As supported by the evidence on the official record, the facts show that the Appellant's claimed process has never been used independently or in combination, the process is not conventional, not routine and not well understood.”

No employee at the USPTO has ever questioned the veracity or efficacy of Appellant's evidence, and indeed the USPTO has taken great steps to ignore Appellant's evidence. Thus, there are fifty-five separate documents of unquestioned veracity and efficacy entered into evidence that support Appellant's position and exactly zero words of evidence supporting the Board's position. However, by changing the theory of rejection using *CyberSource*, the Board not only moved the goalposts, but burned the posts and buried the ashes.

More problematic, however, is the audacity of the Board (page 17, bottom (Appx28)) whereby, after refusing to consider fifty-five separate documents of unquestioned veracity and efficacy, the Board suggests that Appellant might consider re-opening prosecution and “[*s/submit* an appropriate amendment of the claims so rejected or *new Evidence relating to the claims so rejected*, or both,

and have the matter reconsidered by the examiner . . .” (emphasis added). The implication of the Board’s request for evidence is a tacit admission that *Alice-Mayo* is an evidence-based test that the Board is free to ignore.

The Board’s Rehearing Decision.

Consistent with the Examiner’s final Office Action and the Board’s initial Decision, the May 3, 2021, Rehearing Decision is silent on evidence. The Rehearing Decision does not advance the Board’s arguments, and page 4 (Appx5) the Rehearing Decision concisely sums the Board’s position as “we concluded ‘the claims are directed to abstract mental processes, which do not integrate the processes into a ‘practical application,’ and which do not recite an ‘inventive concept.’”

Continuing, Applicant points to page 6 (Appx7) where the Board admits, “[w]e do not dispute that the application of the method of claim 1 may have numerous benefits, and that this may represent both a ‘practical application’ and an ‘inventive concept’ when relying on the colloquial meanings of those terms.”

Applicant greatly appreciates this admission.

Unfortunately, the Board follows this admission with an untrue statement, i.e., “the concepts of ‘practical application,’ ‘inventive concept,’ and ‘insignificant extra-solution activity’ are specific legal concepts, *articulated* in the body of case law

emanating from the Court of Appeals for the Federal Circuit, and the Supreme Court, and *explained* in the Manual of Patent Examining Procedure (‘MPEP’)” (emphasis added).

Articulated? This is false. No court in the United States has ever defined the term “inventive concept.” One must go to Canada for that.

As to the idea of a “practical application,” the Board’s confusion is apparent. Specifically, the Board believes legal-speak “practical” doesn’t really mean “practical” the way the rest of the world uses the term but means something else other than practical. As the Board fails to cite any particular case or exactly what section from the MPEP where “practical” is defined, Appellant cannot possibly reply except that the Board’s position is unsupported by the record.

Appellant subsequently appealed to this Court.

No Examiner or Judge Has Ever Defined What Is an “Inventive Concept” or What “Significantly More” Means

Present Counsel has been a patent practitioner for over twenty years and has adjudicated *Alice-Mayo* issues on every level from the USPTO to the Supreme Court. Present Counsel asserts that he has asked well over three-hundred examiners to define the term “inventive concept.” No examiner has ever claimed they had the slightest idea with the exception of one examiner who said “novelty” and

another examiner who said “non-obviousness.” No USPTO training material defines the term “inventive concept.” No living judge or justice has ever attempted a definition in any published opinion that wasn’t circular. The late, great Judge Giles Rich endlessly mocked the idea of “invention,” and co-wrote the 1952 Patent Act with the express purpose of ridding the United States of the tyranny of capriciousness that is “invention.”

“Invention,” “spark of invention,” “inventive concept” etc. are either synonyms for non-obviousness or synonyms for capriciousness. The public has for far too long been subjected to one capricious decision after another that claims are “abstract” because they lack an “inventive concept.” However, every court decision that invalidates a patent based on the “inventive concept” standard is an exercise in capriciousness and a violation of due process of law.

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{{pp. 25 et seq.}}

The *Alice Corp.* Test Has Gaps That the Federal Circuit Declines to Address

Part 4 (*Alice* Step 1) above is vague in that there’s no objective test as to what are “building blocks of human ingenuity.” What is certain, however, is that examiners and judges are not

competent to make such a determination. This statement is not intended as an insult, but a statement that determining *whether a thing is a “building block of human ingenuity” requires a fact-based inquiry and evidence*. Examiners are not considered to be one of ordinary skill or an expert in the technology they examine, and judges are experts in nothing but the law. *Evidence is needed*.

Part 5 (*Alice* Step 2) above is an exercise in capriciousness with no answer. Why? Because the Supreme Court inserted the term “inventive concept” into the *Alice-Mayo* test without clarifying what an inventive concept is. In particular, the Supreme Court stated, “[w]e have described step two of this analysis as a search for an ‘*inventive concept*’ — i.e., an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to *significantly more* than a patent upon the [ineligible concept] itself” (emphasis added).

No one in over one-hundred and seventy (170) years has ever managed to define what “invention” means or what an “inventive concept” is. That includes every District Court judge that ever lived, every Federal Circuit judge that ever lived, and every Supreme Court justice that ever lived.

“Inventive concept” as used by U.S. courts and USPTO has no meaning – it is a capricious veto of a patent claim.

Similarly, the term “significantly more” as used by the USPTO and Federal Circuit is another capricious standard. If a patent practitioner used the term “significantly more” in a patent claim, the claim would raise a rejection under 35 U.S.C. § 112(b) as being vague and indefinite at the USPTO unless the specification expressly defined the term “significantly more.” In a courtroom setting and in the absence of an express definition in a patent specification, there would be more flexibility in that the patent holder could bring in one or more expert witnesses to testify what “significantly more” means to one of ordinary skill in the context of the relevant technology. No court to date has provided a limiting principle as to what is “significantly more.”

Hence, step 2 of the *Alice-Mayo* test is either a total exercise in capriciousness *or* a fact-based inquiry requiring evidence on the record.

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{{pp. 32 et seq.}}

C. Divorced from Non-Obviousness, the Term “Invention” and Its Derivatives Have No Meaning

What exactly qualifies as an “inventive concept?” The Federal Circuit constantly refers to this term but refuses to define the term beyond an incomprehensible and inconsistent circular argument. Regardless of whether or not a single

Federal Circuit judge believes he/she understand the term, “invention” and “inventive concept” as presently construed by U. S. courts have no place in patent law.

The 1952 Patent Act was enacted in response to the Supreme Court’s anti-patent sentiment prominent in the 1940s. This anti-patent sentiment was reported by Karl Lutz (*The New 1952 Patent Statute*, 35:3 Journal of the Patent Office Society, 155, 156-7 (1953)), who stated the 1952 Patent Act was enacted to remove “the recent apostasy” of the Supreme Court “from the benevolent policy of the Constitution.” Indeed, the “apostasy” was so harsh that Justice Jackson criticized the Supreme Court’s “strong passion” for striking patents down “so that the only patent that is valid is one which this Court has not been able to get its hands on.” *Jungersen v. Ostby & Barton Co.*, 335 U.S. 560, 572 (1949).

Accordingly, Congress codified the patent laws to address this malady in the 1952 Patent Act. See *Efforts to Establish a Statutory Standard of Invention: Study of the Subcommittee of Patents, Trademarks, and Copyrights of the Committee on the Judiciary*, United States Senate; Eighty-fifth Congress, First Session Pursuant to Senate Resolution 55, Study No. 7 (published 1958) (hereinafter “the 1958 Study”).

As stated on page 2 of the 1958 Study, Charles Kettering, who headed the National Patent Planning Commission, remarked that “[o]ne of the

greatest technical weaknesses of the patent system . . . is the lack of a definitive yardstick as to what is invention.”

On page 4 of the 1958 Study, the legendary Honorable Giles Rich remarked about the difficulty of overcoming the idea of invention concluding “[s]o long as invention is there they can say it isn’t good enough to be an invention.” Judge Rich’s words are especially relevant today. Assuming that something is new, useful, falls within the subject matter of § 101 and doesn’t preempt an abstract idea, what standard constitutes “good enough to be an invention?”

As Judge Rich further noted in *The Principles of Patentability* (17:2 Journal of the Patent Office Society, 75, 87-8 (1960)):

“It has generally been stated to be the law that, in addition to being new and useful, an invention, to be patentable, must involve ‘invention.’

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In the final analysis . . . [the] requirement for ‘invention’ was the plaything of the judges who, as they became initiated into its mysteries, delighted to devise and expound their own ideas of what it meant, some very lovely prose resulting” (internal citations omitted).

Thus, at the behest of Congress the two primary authors of the 1952 Patent Act, Giles Rich and “Pat” Federico, replaced “invention” with non-obviousness and, according to Judge Rich, Congress intentionally replaced the phrase “lack of invention” in the patent law with “nonobvious subject matter.” See Giles Rich, *Laying the Ghost of the “Invention” Requirement*, 1:1 APLA Quarterly Journal, pp. 26-45 (1972) (reprinted with permission in *Nonobviousness – The Ultimate Condition of Patentability* at pp. 1:506 et seq.). To this end Judge Rich stated:

“The first policy decision underlying Section 103 was to cut loose altogether from the century-old term ‘invention.’ ***It really was a term impossible to define*** So Section 103 speaks of a condition of patentability instead of ‘invention.’ . . . As compared to finding or not finding ‘invention,’ Section 103 was a whole new way of thinking and a clear directive to the courts to think that way” (emphasis added). *Nonobviousness – The Ultimate Condition of Patentability* at p. 1:508.

Judge Rich’s words were echoed in *Graham v. John Deere Co.*, 383 U.S. 1 (1966), where the Supreme Court recognized that “[t]he truth is, the word [‘invention’] cannot be defined in such manner as to afford any substantial aid in determining

whether a particular device involves an exercise of the inventive faculty.” *Graham*, 383 U.S. at 11 (Quoting *McClain v. Ortmyer*, 141 U.S. 419 (1891)). “Its use as a label brought about a large variety of opinions as to its meaning both in the Patent Office, in the courts, and at the bar. The *Hotchkiss* formulation, however, lies not in any label[.]” *Graham*, 383 U.S. at 12. “Congress used the phrase ‘Conditions for patentability; *non-obvious subject matter*’ (italics added), thus focusing upon ‘nonobviousness,’ rather than ‘invention.’” *Id.* at 14. “Congress has emphasized ‘nonobviousness’ as the operative test of the section, rather than the less definite ‘invention’ language of *Hotchkiss*[.]” *Id.* “We believe that strict observance of the requirements laid down here will result in the uniformity which Congress called for in the 1952 Act.” *Id.* at 18.

Thus, this Court cannot now stand by a meaningless standard that originated in 1851, was declared useless by the Supreme Court in 1891 in the *McClain* decision, rejected by Congress in the 1952 Patent Act, and expressly disavowed by the Supreme Court in 1966 in the *Graham* decision. It took over one-hundred years and an act of Congress to officially rid the patent community of the incomprehensible standard of “invention” with an additional fifteen years for the Supreme Court to formally declare “invention” as outside the Patent Law.

The fact that the death of “invention” in § 103 is now resurrected as “inventive concept” under § 101 is judicial overreach unless “inventive concept” is properly construed to be non-obviousness or perhaps a *prima facie* case of non-obviousness.

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{{pp. 36 et seq.}}

Examiners and Judges Are Not Competent to Provide Evidence on What Is an “Inventive Concept” or What Is “Significantly More” for a Particular Technology

With greatest respect to the Federal Circuit, not a single judge is competent to comment on what an inventive concept is because an inventive concept is not a mere issue of law that is self-evident in the absence of technical context and knowledge. Respectfully, the vast majority of judges are technical neophytes, and technological nuances too often escape judges. For example, in *American Axle & Mfg. v. Neapco Holdings*, 939 F.3d 1285, 1289 (Fed. Cir. 2019), the majority cited the Supreme Court’s *Flook* decision asserting that *Flook*’s mathematical formula (known to electrical

engineers as the “steepest-descent algorithm”¹ is a “natural law.” “Like the claims in *Flook*, claim 22 of the '911 patent is directed to the use of a natural law” However, the steepest-descent algorithm embedded in the *Flook* claims does not describe a natural law, and even the *Flook* majority never made such an assertion.

The steepest descent algorithm is considered an extension of Pierre-Simon Laplace’s method to approximate integrals, and while having a wide variety of applications, the steepest descent algorithm today is commonly used as one of two major adaptive signal processing techniques.

As to “well-known,” even Justice Stevens remarked in 1978 that, “[t]he only novel feature of [Flook’s method] is a mathematical formula.” *Flook*, 347 U.S. at 588. Further, the first express mention of “steepest descent” in a published patent occurred in 1987 in U.S. Patent No. 4,685,0781 to Hsien-Che Lee (Appl. No. 06/712,498 filed March 18, 1985).

Science and history don’t bend to be something that they are not because a court makes an uninformed statement. Applicant’s lesson is that the courts should rely on evidence on the record rather than rely on whatever it is the courts are relying on now. Further, before penning a decision, Applicant

¹ See, e.g., https://ocw.mit.edu/courses/sloan-school-of-management/15-084j-nonlinear-programming-spring-2004/lecture-notes/lec5_steep_desce.pdf

respectfully asserts that the courts should take greater care when reading past decisions they cite to preserve consistency and avoid future confusion.

Continuing, Flook is notable in that Justice Steven's first introduced the term "inventive concept" in ill-conceived dicta. Respectfully, the Federal Circuit's search for an inventive concept is a fool's errand. There is no non-capricious "invention" or "inventive concept" standard currently in the United States.

Further, as with the idea that whether something is well-known, routine, and conventional, the term "inventive concept" must also have an objective basis rooted in the particular technology before a tribunal. That is, while there may be applicable legal rules to determine if a claim has an "inventive concept," the determination for man-made things necessarily starts with evidence. Capricious and uninformed whims are not a valid judicial standard.

**EXCERPTS FROM USPTO SOLICITOR'S
OPPOSITION BRIEF**

{{pp. 30 et seq.}}

Next, the Board did not invoke issue preclusion principles to conclude that Killian's claims are patent ineligible. In contrast to Killian's assertions (Br. at 64-65), the Board did not rely exclusively on a determination that claim 1 and the claims in other Federal Circuit cases are identical to conclude that claim 1 is directed to a mental process. Rather the Board merely noted that Killian's claims are strikingly similar to claims previously held to be mental processes by this Court, and then went on to conduct a thorough patent eligibility analysis. For example, although the Board noted that the claims in *CyberSource* and Killian's claim 1 both relate to "a method that can be performed by human thought alone" (Appx21), the Board also carefully analyzed the language of Killian's claims and faithfully adhered to § 101 precedent when assessing the patentability of his claims. *See* Appx14-22. In addition, Killian's argument that the Board's reliance on *InvestPic* was error (Br. at 64-66) fails because, just as the Board did here, the Court in *InvestPic* compared the subject matter before it to the subject matter in other cases, as part of its analysis determining that the involved claims recited an "abstract idea." *See SAP Am.*, 898 F.3d at

1167. For all these reasons, Killian fails to establish any sort of due process violation.

More broadly, the comparative analysis conducted by the Board under the first step of the *Alice* inquiry is appropriate given that the § 101 inquiry is largely a question of law. *See, e.g., OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362 (Fed. Cir. 2015); USPTO 2019 Update, 84 Fed. Reg. 55,942 (Oct. 18, 2019) (collecting cases). Accordingly, while a § 101 inquiry might involve underlying factual issues, “it is also possible, as numerous cases have recognized, that a § 101 analysis may sometimes be undertaken without resolving fact issues.” *Mortgage Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016).

Here, no fact finding was necessary to determine that claim 1 recites an abstract idea. The Board explained that it considered claim 1 as a whole and characterized it as reciting an abstract idea and several additional elements. Appx6. The Board then concluded that the claim as a whole was directed to an abstract idea. *Id.* (citing Appx26). The Board emphasized it “did not conclude that everything in the claim is an abstract mental process, and did not ‘disregard[] other important physical claim limitations,’ or ‘overlook[] most of the claimed limitations that require actual physical steps,’ as argued.” Appx6. Moreover, its determination that claim 1 recites abstract mental processes was based

on “specific legal concepts, articulated in the body of case law emanating from the Court of Appeals for the Federal Circuit, and the Supreme Court, and explained in the Manual of Patent Examining Procedure (“MPEP”) and the Guidance.” Appx7 (emphasis omitted). Thus, the Board’s patent eligibility analysis fully comports with the law.

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{{pp. 36 et seq.}}

Killian incorrectly asserts that the Board’s § 101 determination is “inconsistent with thirty-five years of Supreme Court precedent” establishing that claims using generic computers or mathematical algorithms can be patent-eligible. Br. at 55-61. The cases Killian cites as support do not aid his cause.

To the contrary, the cited cases demonstrate that claims to an abstract idea are only patent-eligible when they recite significantly more than the abstract idea itself. In the case of computer-implemented algorithms, this means that the claimed invention must generally improve computer functionality. For example, the Court in *Enfish* explained that the claims there did not recite an abstract idea because they did more than just store data on a general purpose computer as alleged. *Enfish*, 822 F.3d at 1339. Rather, the Court concluded that the “self-referential table recited in the claims on appeal is a specific type of data

structure designed to improve the way a computer stores and retrieves data in memory.” *Id.* The *Enfish* claims were thus “directed to a specific implementation of a solution to a problem in the software arts” rather than ones “where general-purpose computer components are added post-hoc to a fundamental economic practice or mathematical equation.” *Id.*

The claims in *McRO* similarly reflected improvements in computer-related technology that were unlike concepts in previously identified abstract ideas. In *McRO*, the Court explained that the “claimed process uses a combined order of specific rules that renders information into a specific format that is then used and applied to create desired results: a sequence of synchronized, animated characters” rather to merely carry out a fundamental business practice. 837 F.3d at 1315. The “specific features” of the claims viewed as a whole in *McRO* thus reflected a “technological improvement over the existing, manual 3-D animation techniques,” making it patent eligible. *Id.* at 1316.

Killian’s claim 1 is not like the patent-eligible subject matter in *Enfish* and *McRO*. As the Board correctly explained, Killian’s claims and specification do not provide significantly more than the execution of an algorithm on a general computer, which is conventional technology. Appx25-26 (emphasizing that “[t]he operations of

storing, analyzing, receiving, and writing data are primitive computer operations found in any computer system.” (citing *In re Katz*, 639 F.3d at 1316)). The Board observed that “storing, analyzing, receiving, and writing data are primitive computer operations found in any computer system” and they cannot make the data collection and analyzing non-abstract. Appx25-26 (citing *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378 (Fed. Cir. 2017) (holding that considering claims reciting data retrieval, analysis, modification, generation, display, and transmission as an “ordered combination” reveals that they “amount to ‘nothing significantly more’ than an instruction to apply [an] abstract idea” using generic computer technology)); *see also Elec. Power Group*, 830 F.3d at 1353-1356 (concluding that additional limitation of displaying data on a map does not render the display of data non-abstract). Thus, in contrast to Killian’s assertions, the Board did not hold that claim 1 was patent-ineligible solely because it recites an algorithm or generic computer functionality.

**EXCERPTS FROM APPELLANT'S /
PETITIONER'S REPLY BRIEF**

{{pp. 1 et seq}}

I. Summary of Argument

It is the Solicitor's official position that the USPTO is free to ignore Supreme Court precedent. However, the Supreme Court's *Bilski* holding, not the Federal Circuit's *Investpic* holding, is controlling law. Applicant reminds the Solicitor and this Court that the Supreme Court expressly rejected the mental steps theory of patent ineligibility that was championed in 2007 by both the USPTO and the Federal Circuit in favor of an evidence-based approach that must demonstrate that an underlying business method must be well-known, routine, and conventional in order for the claims at issue to be abstract.

Further, despite a demand from Appellant Killian, the Solicitor refused to provide a definition or a single limiting principle for the terms "inventive concept" or "significantly more." Similarly, the Solicitor refused to define "abstract" as was used by the Patent Trial and Appeal Board ("the Board") consistent with Supreme Court precedent. These terms as used by the USPTO are nothing more than meaningless words used as a capricious veto of perfectly valid and patent-eligible claims.

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{{pp. 4 et seq}}

B. The Solicitor Refused to Address Appellant's Demands for Non-Capricious Definitions

The majority of Appellant Killian's Opening Brief is a demand for non-capricious definitions and/or limiting principles. The irony now before this Court is that, despite the Solicitor's accusations about Appellant Killian's supposed errors, the Solicitor refused to answer Appellant's challenge to provide a single non-capricious definition or limiting principle, cite a single case contradicting Killian's understanding of Supreme Court precedent, or cite an instance where Appellant Killian made any error of fact.

The closest the Solicitor came to addressing Appellant Killian's demands for any definition or limiting principle was to assert that "the Board reiterated that the terms should be defined according to their legal definitions. Appx 6-7." ResBr at p. 20. However, the Board provided nothing akin to a "legal definition" or a single authoritative source where any "legal definition" may be found. The Board's entire discussion of relevant definitions (Appx6) is shown below.

We do not dispute that the application of the method of claim 1 may have numerous benefits, and that this may represent both a “practical application” and an “inventive concept” when relying on the colloquial meanings of those terms.

However, as we noted in our Decision, the concepts of “practical application,” “inventive concept,” and “insignificant extra-solution activity” are specific legal concepts, articulated in the body of case law emanating from the Court of Appeals for the Federal Circuit, and the Supreme Court, and *explained* in the Manual of Patent Examining Procedure (“MPEP”) and the Guidance. Decision 3–6. In an analysis under Section 101 for subject matter eligibility, these terms have more specific meanings than in their colloquial use. The benefits that may accrue when performing a claimed

As to the Board’s reference of “Decision 3-6” (Appx14-17), there are no definitions, no limiting principles, or any use of the terms at issue beyond the circular usage the Board has relied on for the last decade when capriciously rejecting claims under *Alice-Mayo*.

The Solicitor talks nonsense.

The terms “abstract idea” (outside the definition provided by *Alice Corp.*), “significantly more,” and “inventive concept” remain an ongoing mystery to the patent community. The Solicitor’s silence should not be ignored as these issues produce great uncertainty in industry that will never go away on its own.

Appellant reiterates that *no one in over one-hundred and seventy (170) years has ever managed*

to define what “invention” means or what an “inventive concept” is. “Inventive concept” has no meaning – it is nothing more than a capricious veto of a patent claim.

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{{pp. 8 et seq.}}

III. The “Mental Steps” Doctrine Has No Foundation in *Alice-Mayo*

On page 11 of the Solicitor’s Brief, the Solicitor states that the Board held the present claims are patent ineligible while asserting that the claims amounted to “mental processes, rather than a method of organizing human activity.”

If these “mental processes” referred to processes that could actually be performed solely in a human mind, Appellant might possibly agree with the Solicitor. However, that is not the case with the present claims, which cannot be performed solely in a human mind according to the express requirements of the claims.

Further, the Solicitor points to no Supreme Court case in the last forty (40) years that holds this “mental steps” nonsense is current law while also ignoring that the Supreme Court majority rejected Justice Steven’s advocacy of this pre-1952 “mental

steps” artifact in *Diamond v. Diehr* – and that was again rejected by the Supreme Court majority in *Bilski*, where the Supreme Court championed an evidence-based § 101 analysis while rejecting the USPTO’s and Federal Circuit’s § 101 mental steps theory of patent eligibility. *Bilski v. Kappos*, 561 U.S. 593 (2010). ***The very raison d’être of Bilski is a rejection of the mental steps in favor of an evidence-based approach for determining patent eligibility.*** Similarly, *Alice Corp.* rejected the mental steps doctrine in favor of an evidence-based approach for determining patent eligibility after a number of Federal Circuit judges tried to improperly resurrect the mental steps doctrine less than three years after the *Bilski* decision was published. *CLS Bank*, 717 F.3d at 1288, 1292.

Further, while the Solicitor mentions the Federal Circuit’s *Enfish* decision seven times and the *McRO v. Bandai* decision twelve times in his Brief, the claims in both *Enfish* and *McRO* could absolutely be performed completely in the human mind according to the unlawful resurrection of mental steps outlined in *Investpic*.

Appellant would like to remind the Solicitor and this Court that any computer-based claim or any digital logic based claim theoretically can be performed by the human mind based on the mental steps approach outlined in *Benson*. However, a claim is not patent ineligible merely because it involves a computer or might be performed by a

human, and any Federal Circuit holding to the contrary contradicts *Alice Corp.*, *Bilski*, and *Diamond v. Diehr*.

Still further, Appellant would like to remind this Court that ***no other country*** hobbles its technology base with this faux mental steps nonsense. Certainly, in an information age dominated by computers and processing technologies, the United States cannot afford to defy the statutory text of 35 U.S.C. §§ 100(b) and 101 with this arbitrary yoke mislabeled “mental steps” because the USPTO was self-admittedly too incompetent to search and examine computer-based technologies in 1972. See *Gottschalk v. Benson*, 409 U.S. 63, 72-73 (1972).

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{{pp. 11 et seq.}}

IV. The “Mental Steps” Doctrine Is a Capriciously Applied Tool Used To Evade Supreme Court Precedent and Invalidate Claims

On page 33 of the Solicitor’s Brief, the Solicitor asserts:

“Killian also argues that the Board failed to provide any specific findings of fact demonstrating that the additional elements of claim 1 are well-understood, routine, and

conventional, as required by *Berkheimer*. Br. at 15, 41-42. Killian's assertion falls short. First, what Killian identifies as deficits in factual support under *Alice* step two ("that the present claims as a whole, ordered combination amount to a 'basic tool of scientific and technological work'" (*id.* at 42)) were actually included in the analysis that underlies the Board's determination that claim 1 is directed to abstract mental processes under *Alice* step one."

This precisely sums up "mental steps." ***The Board knew there was no evidentiary basis to reject Appellant Killian's claims.*** Ergo, the Board substituted the fundamental economic practice rejection by the Examiner with a "mental steps" theory of rejection while falsely claiming that Appellant Killian misunderstood *Berkheimer*. However, Appellant understands very well that ***the Board's switch in legal theories was merely to justify ignoring the fifty-five (55) separate documents Appellant Killian presented in favor of patent eligibility.*** Appx113; OpBr at 12.

Unfortunately, this bait-and-switch tactic in patent-eligibility theories used by the USPTO is far from rare and is based on nothing but a desire to reject claims at all costs.

Appellant Killian is not only fully aware of the evidentiary requirement set forth in step one of *Alice Corp.*, *Bilski*, and *Berkheimer*, but also knows

the Federal Circuit has no idea how to apply evidence at step two of *Alice-Mayo*. Judge Reyna confirmed this fact stating, “Unlike prior art for purposes of §§ 102 and 103, ***we have no established parameters or guidance for what evidence we can and should consider for inventive concept purposes***” (emphasis added). *Berkheimer*, 890 F.3d at _____. This admission, however, is self-evident. How does one apply evidence to a meaningless term?

Appellant Killian is also aware that ***the Federal Circuit’s Berkheimer decision rejected the mental steps doctrine***. Further, the only mention of the mental steps theory of patent ineligibility in the *Berkheimer en banc* decision was made by Judges Lourie and Newman, who stated “No one should be inhibited from thinking by a patent. . . . Moreover such a patent would be unenforceable. Who knows what people are thinking?” *Berkheimer*, 890 F.3d at _____. The present claims, however, do not raise this concern as ***the claims now before this Court are directed to objectively observable actions*** as opposed to processes that could happen solely in the human mind according to the requirements of the claims. “Mental steps” as currently practiced by the judiciary is not about actual mental steps or the human mind. It nothing but a capricious and unlawful judicial veto of a patent.

**EXCERPTS FROM APPELLANT'S/PETITIONER'S
REQUEST FOR REHEARING**

{{pp. 1 et seq}}

**I. The Panel's Decision Must by
Modified as an Issue of Public Policy**

The Panel's Decision below is a *precedential opinion* that stands for the proposition that all software is patent ineligible, that evidence makes no difference in an *Alice-Mayo* analysis, and that the Federal Circuit can change the basis of an administrative action on a whim without giving an aggrieved party an opportunity to be heard despite the prohibition of such in the text of the APA and over seventy years of Supreme Court precedent. This decision muddies step one of *Alice-Mayo*, and fails to clarify step two of *Alice-Mayo*. If left as is, the holding of this case will increase uncertainty in patent eligibility.

The typical step one *Alice-Mayo* analysis of the Federal Circuit is: (1) to announce that a claim is directed to a "something" described in such a manner that the "something" barely resembles the claim at issue, then (2) gratuitously declare (without evidence) that the "something" is "abstract" while refusing to address the vast bulk of the claim's limitations. Step two of *Alice-Mayo* is merely an announcement that claims do not contain an

“inventive concept” – a term so meaningless that no court has never defined the term.

Respectfully, the Panel’s Decision enables the USPTO to make any capricious rejection under the guise of patent eligibility free from the burdens of evidence, law, and due process with the understanding that the Federal Circuit will act on behalf of the PTAB when the PTAB commits egregious errors. Patents are not just property; patents are the life’s blood of small companies. In the context of software patents, “to the small software products companies upon which the future of the development of quality software depends, the value of the patent in financing a small company may spell the difference between life and death.” *Diehr*, 450 U.S. at 182, fn 42.

II. Misrepresentations in the Decision

Unfortunately, the Panel’s Decision dodged every issue Killian raised while making a large number of factual and legal misrepresentations, all disfavoring Killian. The Decision also raises new issues while distorting Killian’s arguments. The errors are as follows:

Error One: On page 12 of the Panel’s Decision, the Panel makes an erroneous assertion, which is reproduced below:

“But, as we have already explained, the APA does not empower us to review decisions of “the courts of the United States” because they

are not agencies. 5 U.S.C. § 701(b)(1)(B). We may not turn the “arbitrary and capricious” standard of the APA back onto the Supreme Court or our own court.

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But we may not announce that the Board acts arbitrarily and capriciously merely by applying ***binding judicial precedent***, as urged by Mr. Killian” (emphasis added).

As an initial issue, Appellant Killian never stated, or remotely suggested, that the Federal Circuit apply § 701 to “the courts of the United States.” Certainly, if Killian had done so, the Decision would have cited the document and exact page(s) of such a transgression.

Such an accusation is a distraction of the real issue. That is, despite the last admonishment of the Panel, § 706 of the APA requires the Federal Circuit to announce that the PTAB acts arbitrarily and capriciously or when the PTAB relies on nonexistent definitions or fails to provide substantial evidence. The issue arises: Does the Federal Circuit believe that “binding judicial precedent” allows for violations of the APA and Fifth Amendment due process of law, and if so, what is this “binding judicial precedent”?

Error Two: Page 17 of the Decision asserts that “[a]t bottom, *Diehr* did not comment on or overrule the mental steps doctrine” established by *Benson*. **Did not comment on?** Most respectfully, who exactly performed the “independent review” on this issue? A word search of *Diehr* shows that the terms “mental step(s)” occurs fifteen times, “mental operation(s)” four times, “mental processes” twice, and “mentally” once. Further, *Diehr* spends copious amounts of text characterizing *Benson* as merely a bar on claims having a mathematical formula and expressly stated/quoted, *inter alia*: (1) ‘It is said that the [*Benson*] decision precludes a patent for any program servicing a computer. We do not so hold.’ (*Diehr*, 450 U.S. at 187) (2) “While a mathematical formula, like a law of nature, cannot be the subject of a patent, *cf. Gottschalk v. Benson*.” (*Id.* at 185) (3) “A mathematical formula, as such, is not accorded the protection of our patent laws, *Gottschalk v. Benson*.” (*Id.* at 191) (4) “In *Gottschalk v. Benson*, we held that a program for the solution by a digital computer of a mathematical problem was not a patentable process within the meaning of § 101.” *Id.* at 216. The entirety of *Benson* may not be officially “overruled,” but the holding of *Benson* is undoubtedly narrowed.

Error Three: On page 11 of the Decision, the Panel states, “Although Mr. Killian alludes to Fifth Amendment Due Process Clause violations stemming from the alleged imprecision of the

Alice/Mayo standard, he never argues that the standard runs afoul of the void-for-vagueness doctrine. Nor could he, as vagueness *as applied to the particular case* is a prerequisite to establishing facial vagueness.”

To this Appellant respectfully responds that the term “inventive concept” is not “vague” or “imprecise” – the term is meaningless – so meaningless that the PTAB lied about the issue. When did it become acceptable at the Federal Circuit for an administrative agency to lie?

Furthermore, it is not necessary to argue void-for-vagueness to recognize that a decision violates due process of law. The void-for-vagueness doctrine was derived from the fifth and fourteenth amendments, not the other way around. Also, the void-for-vagueness doctrine applies to statutory language, not judicial decisions.

Error Four: Page 19 of the Decision states, “We find that Mr. Killian forfeited any argument on appeal based on those fifty-five documents by failing to present anything more than a conclusory, skeletal argument.” citing *SmithKline Beecham*. Respectfully, this is a misuse of *SmithKline*. Killian’s entire point is expressly made in his Opening Brief (pages 11-13) that: (A) the PTAB refused to consider a large amount of evidence favoring Killian, (B) the PTAB changed the theory of rejection precisely to avoid addressing Killian’s evidence, and (C) that “[t]here are 55 documents of

unquestioned veracity and efficacy entered into evidence that support Appellant's position and exactly zero words of evidence supporting the Board's position that Killian's underlying business method is abstract." Killian need not discuss the content of the 55 documents in any detail – only point out that the PTAB refused to consider evidence favoring Killian, which is a clear violation of *In re Oetiker*, 977 F.2d 1443 (Fed. Cir. 1992) (a “determination of patentability must be based **on the entire record** by a preponderance of evidence” (emphasis added)). This alone is sufficient cause to vacate the PTAB's rejection as an issue of law – especially after the Decision (page 8, bottom) acknowledges that Killian's claims cannot be performed by mental steps alone and the USPTO acknowledged (Response Brief (ResBr) at p. 33) that the mental steps doctrine was used to avoid the evidence issue.

Contrast *Yu and Zhang v. Apple, Inc.*, Appeal 20-1760 (Fed.Cir. June 11, 2021), slip op. at p. 4, where Judges Prost and Taranto condemned the patentees' claims stating, “The district court further concluded that the asserted claims lack an inventive concept, noting “the complete absence of any facts showing that the[] [claimed] elements were not well-known, routine, and conventional.” If evidence favoring patent eligibility is worthy of consideration, why does the instant Decision give a pass to the USPTO by proactively misusing *SmithKline*?

Error Five: Appellant Killian never requested this Court overrule Supreme Court precedent. What Killian asks of this Court is to recognize that the line of Supreme Court exceptions on patent eligibility as interpreted by the Federal Circuit have turned the statutory framework of the Patent Law into a capricious and unworkable two-part test that, *as practiced by the USPTO, violates due process of law and the APA*. This Court's duty to the Constitution exceeds any erroneous interpretation by the Federal Circuit of Supreme Court precedent that violate constitutional principles. Otherwise, Killian agrees to let the Supreme Court review patent past eligibility decisions based on an unworkable framework and specious constitutional authority to rewrite the statutory patent laws from the bench.

Error Six: Appellant never argued whether or not a computer is “well-known, routine, and conventional,” and argued at great length that there is no evidence that the underlying process is “well-known, routine, and conventional.” See Killian's Opening Brief (OpBr) at pp 11-13, 15-20, 37-44, 61-67; Killian's Reply Brief (RepBr) at pp. 1, 4, 8, 9, 12, and 16.

With this said, the Decision does not address the evidence issue except as it pertains to the computer, i.e., the one thing Killian never contested and repeatedly argued makes no difference in an *Alice-Mayo* analysis. See OpBr at pp. 55-60.

Error Seven: The Decision (page 8) creates a new theory of abstract after it announced that the PTAB's mental steps application to Killian's claims was erroneous. Specifically, the Decision states "Killian's claims must fail *Alice/Mayo* step one as they are directed to collection of information, ***comprehending the meaning of that collected information***, and indication of the results" (emphasis added). Respectfully, Killian's claims have nothing to do with "comprehending" anything, and the term "comprehend" (or any derivative) never appears in the PTAB decision or any brief before the Federal Circuit. Further, as is discussed below, the Panel's substitute theory of abstract is an unlawful violation of the statutory language of the APA and over 70 years of Supreme Court precedent.

III. The Decision Expressly Confirms that the PTAB's Rejection Is Erroneous

The Decision (page 8) states "these steps [of Killian's claims], ***with the exception of the step of the caseworker obtaining additional information***, are performed on a generic computer does not save the claims from being directed to an abstract idea" (emphasis added). This statement is an express admission that the PTAB's "mental steps" theory of rejection is erroneous. Why this admitted error "does not save the claims" is unexplained.

Killian is left to guess in light of the fact that the claims of, e.g., *DDR Holdings*, *Enfish*, and *McRO* were never held to this erratically applied “mental steps” standard even though all of the claim limitations actually could be performed entirely within the human mind.

Regardless, given that the Federal Circuit acknowledges that the PTAB’s rejection contains such a gross error under step one of *Alice-Mayo* renders the Federal Circuit powerless to do naught but set aside the PTAB’s rejection. See *Securities & Exchange Comm'n v. Chenery Corp.*, 332 U. S. 194, 332 U. S. 196 (1962), which requires that the Federal Circuit may only uphold an agency decision on the same basis articulated by the agency. In particular, *Chenery* states:

"[A] simple but fundamental rule of administrative law . . . is . . . that a reviewing court, in dealing with a determination or judgment which an administrative agency alone is authorized to make, must judge the propriety of such action solely by the grounds invoked by the agency. If those grounds are inadequate or improper, the court is powerless to affirm the administrative action." *Id.*

Burlington Truck Lines, Inc. v. United States, 371 U.S. 156, 168 (1962) similarly states that courts are “powerless to affirm the administrative action by substituting what it considers to be a more adequate or proper basis.” “For the courts to

substitute their or counsel's discretion for that of the Commission is incompatible with the orderly functioning of the process of judicial review.” *Id.* See also, *Motor Vehicle Mfgs. Assn. v. State Farm*, 463 U.S. 29 (1983) (a reviewing court “may not supply a reasoned basis for the agency's action that the agency itself has not given”); *Gonzalez v. Thomas*, 547 U.S. 183 (2006) (“A court of appeals ‘is not generally empowered to conduct a *de novo* inquiry into the matter being reviewed and to reach its own conclusions based on such an inquiry”). Further, given that *Berkheimer*, *Alice Corp.*, *Mayo*, and *Bilski* all recognize that whether something is “well-known, routine, and conventional” is an issue of fact, and the Federal Circuit is not a fact-finding body, it is inappropriate for the Federal Circuit to fabricate a different legal theory of “abstract” for which Killian has had no opportunity to be heard. See *Singleton v. Wulff*, 428 U.S. at 121 (1976) (holding that injustice is “more likely to be caused than avoided by [an appellate court] deciding the issue without petitioner's having had an opportunity to be heard.”).

III. The Federal Circuit’s Jurisprudence of “Abstract Idea” is Capricious

As mentioned above, the Decision takes liberty to rewrite the “abstract idea” of Killian’s claims to “collection of information, comprehending the meaning of that collected information, and indication of the results, all on a generic computer network operating in its normal, expected manner.”

However, the present claims have nothing to do with “comprehending” anything, the PTAB and Solicitor never made mention of “comprehending” anything, Killian never had an opportunity to be heard on this new rejection and, while computers can store data and perform operations on data, a ***generic computer network operating in its normal, expected manner cannot “comprehend” information any more than might a hammer.*** Most respectfully, the Decision relies not just upon fiction to invalidate Killian’s claims, but engages in wholesale fantasy in a manner similar to the days when “invention” corrupted the Patent Law. As Killian stated in his opening brief (page 38), “Science and history don’t bend to be something that they are not because a court makes an uninformed statement.” The lower courts and examiners should not be forced into such cognitive dissonance.

Fast-forward seventeen days from the publication of the *Killian* Decision, the Federal Circuit published *In re Jason Smith*, Appeal No. 22-1310 (Fed.Cir. Sept. 9, 2022), where the Federal Circuit (slip op. at p. 5) *sua sponte* rejected the *Smith* claims under the same impossible “comprehending” theory invented by the *Killian* Panel regardless of the fact that the PTAB held the “abstract idea” of the *Smith* claims relates to organizing business or sales activity. As with *Killian*, Appellant *Smith* never had an opportunity

to be heard on the issue. Further, as with *Killian*, the *Smith* claims have nothing to do with “comprehending” anything.

The decisions against *Killian* and *Smith* are back-to-back violations of both due process of law and the APA whereby the Federal Circuit spontaneously invented a new theory of “abstract” based on things that never happened in *Killian*, then applied this new theory of abstract to things that never happened in *Smith* to come to a conclusion of patent ineligibility having no basis in anything that ever happened at the USPTO or before the Federal Circuit.

This behavior is precisely the reason *Killian* protested the application of supposedly fact-based theories of “abstract” from other Federal Circuit decisions to *Killian*’s claims. OpBr at pp. 64-66. The claims of *Electric Power Group* or any other case previously before the Federal Circuit held patent ineligible under § 101 have nothing to do with whether a single limitation in *Killian*’s claims is well-known, routine, and conventional. This “comprehending” computer network theory is also clear proof that judges lack the competence to declare any man-made thing abstract without evidence.

While the Decision (page 11) states that “the claims of the ’042 application are clearly patent ineligible in view of our precedent,” Appellant *Killian* asks, “*What precedent is that?*” The Panel

had to devise a new theory of “abstract” having nothing to do with preemption, based on things that never happened, and based on language not in any claim after the PTAB’s mental steps theory failed without giving Killian an opportunity to be heard.

Respectfully, *what legal precedent supports such judicial actions?*

On page 12, the Decision states, “As to the abstract idea exception, no single, hard-and-fast rule that automatically outputs an answer in all contexts exists because there are different types of abstract ideas[.]” To this Killian replies that: (1) the Federal Circuit automatically categorizes all business methods as abstract regardless of the nature of the business method, but (2) the Supreme Court never held a business method “abstract” without evidence that the underlying process was “well-known, routine, and conventional.” See OpBr at pp. 23-24.

IV. Benson’s Mental Steps Doctrine Was Later Reinterpreted by The Supreme Court as Merely Applying to Mathematical Formulae

The holding of *Benson* was initially considered a to be a ban on all software claims, and Killian need not expound on *Benson* given the holding of the PTAB.

A. The *Diehr* Majority Expressly Reinterpreted *Benson* as Merely Applying to Math

The Decision (page 16) asserts “The Supreme Court did not hold in *Diehr*, *Bilski*, or any other case that ‘steps performed in a computer are not ‘mental steps’” Most respectfully, the double-negative expression makes this statement difficult to parse, and is made completely incomprehensible in light of the fact that *there is no “computer” recited in the *Bilski* claims*. However, as best as Killian may reply, the *Diehr* majority absolutely cited *Benson* as merely a ban on claiming *mathematical formulae* while expressly stating that *Benson* does not apply to software claims in general.

Even Justice Stevens’ dissent expressed *Diehr* as a rejection of *Benson*’s mental steps doctrine stating, “Under the ‘mental steps’ doctrine, processes involving mental operations were considered unpatentable.” *Diehr*, 450 U.S. at 195. ”The broad question whether computer programs should be given patent protection involves policy considerations that this Court is not authorized to address.” *Id.* at 216-217.

B. *Bilski* Expressly Interprets *Benson* as Merely Applying to Math

To understand what the *Bilski* holding represents, one first needs to start with a recognition that the claims at issue in *Bilski* recite a business method untethered from any machine.

Bilski, 595 F.3d at 949. Lacking a machine or physical transformation, the Federal Circuit majority *en banc* rejected the *Bilski* claims under the mental steps doctrine. This opinion stated, *inter alia*, “we simply recognized that the Supreme Court has held that mental processes, like fundamental principles, are excluded by § 101.” *Id.* at 960. In contrast, Judge Newman criticized the majority stating that *Bilski*’s process “is not a mental process or a law of nature” but a “process” that was “set out in successive steps, for obtaining and analyzing information and carrying out a series of commercial transactions[.]” *Id.* at 995.

The Supreme Court, however, rejected the Federal Circuit’s mental steps theory and held that the word “process” includes business methods stating, “Section 101 similarly precludes the broad contention that the term “process” categorically excludes business methods. . . . The Court is unaware of any argument that the ‘ordinary, contemporary, common meaning,’ . . . of ‘method’ excludes business methods.” *Bilski*, 561 U.S. at 607. Thus, the Supreme Court adopted Judge Newman’s interpretation of “process” while rebuffing the mental steps rejection of the Federal Circuit majority.

While the Decision (page 17) asserts that *Bilski* does not comment on the holding of *Benson*, Appellant most respectfully asserts that the *Bilski* opinion expressly observes that the *Diehr* decision

“established a limitation on the principles articulated in *Benson* and *Flook*.” *Bilski*, 561 U.S. at 611. Since 1981 the Supreme Court has, without exception, continued to recognize this “limitation” established in *Diehr* and viewed *Benson* as a bar on claims that merely recite a mathematical equation.

C. *Mayo* and *Alice Corp.* Expressly Interpret *Benson* as Merely Applying to Math

The Supreme Court’s *Mayo* decision expressed the holding of *Benson* narrowly stating that the Court “held that simply implementing a **mathematical principle** on a physical machine, namely a computer, [i]s not a patentable application of that principle” (emphasis added). *Mayo*, 566 U.S. at 84. “*Diehr* and *Flook*, the cases most directly on point, both addressed processes using **mathematical formulas** that, like laws of nature, are not themselves patentable” (emphasis added). *Id.* at 89.

Alice Corp. similarly cited *Benson* as “simply implementing a **mathematical principle** on a physical machine” (emphasis added). *Alice Corp.*, 573 U.S. at 222. *Alice Corp.* also characterized the *Flook* decision as merely holding “that a **mathematical formula** for computing ‘alarm limits’ in a catalytic conversion process was also a patent-ineligible abstract idea” (emphasis added). *Id.* at 218.

D. The Majority of Federal Circuit Opinions Expressly Interpret *Benson* as Merely Applying to Math

The list of Federal Circuit cases that state that *Benson* was about math and not mental steps is legion. However, for brevity Appellant focuses on a few notable cases starting with *DDR Holdings*, where *Benson* is cited for the idea that, “simply implementing a **mathematical principle** on a physical machine, namely a computer, [i]s not a patentable application of that principle” (emphasis added). *DDR Holdings*, 773 F.3d. at 1256.

McRO (837 F.3d at 1310) similarly stated that “**Mathematical formulas** are a type of abstract idea” citing *Benson*. Appellant Killian draws special attention to the representative claim of *McRO* which was held patent eligible despite the fact the representative *McRO* claim can accurately be described as directed to nothing more than collecting data, applying math to the data to create a “final stream,” then “applying” the final stream to an abstract animation process. As with nearly every post 2014 Federal Circuit opinion, *McRO* expressly characterizes *Benson* stating, “**Mathematical formulas** are a type of abstract idea” (emphasis added). *Id.*

Similarly, the claims of *Enfish* amount to nothing more than a manipulation of data, and *Enfish* (822 F.3d at 1338) characterizes *Benson* stating, “unlike the claims here . . . the patent-

ineligible claims at issue in other cases recited use of an abstract *mathematical formula* on any general purpose computer” (emphasis added). A list of Federal Circuit judges who have expressly held a pure software claim to be patent eligible while describing *Benson* as merely directed to claims with mathematical algorithms includes Judges Bryson, Chen, Dyk, Hughes, Linn, Lourie, Mayer, Moore, Newman, O’Malley, Plager, Reyna, Stoll, Taranto, and Wallach.

V. The Evidence Requirement of Step One of *Alice-Mayo* Must be Resolved.

As stated above, the Supreme Court always relied on evidence to determine whether a business method was abstract (i.e., would unduly preempt a basic tool of human endeavor) while the Federal Circuit routinely avoids issues of evidence in favor of *circulus in probando* declarations disguised as issues of law based on no coherent policy. However, every time that the Federal Circuit addresses the evidence issue, claims are held eligible at step one. Every time that the Federal Circuit addresses claims as a whole, claims are held eligible at step one.

The issue of the need for evidence at the Federal Circuit was supposedly answered in the *Berkheimer en banc* decision. Unfortunately, the reality is the Federal Circuit ignores the evidence issue at its pleasure. “Binding judicial precedent” from the Supreme Court and this court, however, demands

that the Federal Circuit address the evidence of each and every limitation of a claim.

A. There is ZERO Evidence That the Underlying Business Method is Abstract

As is mentioned above, Appellant supplied the PTAB with evidence that the underlying business method at issue is not abstract, which the PTAB ignored. *The PTAB also failed to produce an iota of evidence to support that a single limitation (excluding the computer) in any claim is well-known, routine, and conventional.*

Unfortunately, the Decision addressed evidence only for the word “computer” while passing on the remaining text of Killian’s 440 word claim 1. This is not a credible analysis in what is “well-known, routine, and conventional,” and this evidentiary failure violates the substantial evidence requirement of the APA and “binding judicial precedent.”

B. Courts Must Address Each Claim as a Whole to Meaningfully Address Step One of *Alice-Mayo*

The Supreme Court established that “well-known, routine, and conventional” must be based on a sound objective basis with preemption in mind. An entire business method (discounting the computer) of a claim must be well-known, routine, and conventional to be abstract. Not just individual parts of the business method, but the business method as a whole. Every claim may be dissected

into meaningless pieces, but such dissection is inappropriate under *Diehr*. “[C]laims must be considered as a whole, it being inappropriate to dissect the claims[.]” *Diehr*, 450 U.S. at 188.

Contrary to the requirements of *Diehr*, the PTAB reduced Killian’s 440 word claim to “identifying people who may be eligible for SSDI benefits they are not receiving” (see ResBr at p. 12). The PTAB thus discounted 95% of independent claim 1. However, the Supreme Court never discounted a single limitation in any claim in a patent eligibility case. While the Supreme Court described the business methods at issue in *Bilski* and *Alice Corp.* generally, the Supreme Court never held a claim ineligible without evidence that every limitation (sans computer) was well-known, routine, and conventional.

This is akin to the abstract idea of “balancing a car tire.” Easy to convey given tire balancing in various forms is ubiquitous. However, those who have never balanced a car tire are not competent arbiters of what steps of a new tire balancing procedure are well-known, routine, and conventional in the art of tire balancing without evidence. Killian’s point is simple: use vernacular expressions to describe a claim as did the Supreme Court for convenience, but address each claim limitation as a whole, ordered combination and stop assuming claim limitations are known without evidence. Such practices produce errors 100% of the time.

For example, it is erroneous to say that Killian's steps (claim 1) of "(d) retrieving parental and/or marital Social Security record(s) from the Federal Social Security database through the computer network in order to identify information for determining eligibility for SSDI adult child benefits," and "(e) determining whether the person indicated in the electronic data record is eligible for receiving SSDI adult child benefits based on the identified information for determining eligibility of SSDI adult child benefits and current SSDI benefit legal requirements," are well-known, routine, and conventional when the USPTO found no such evidence in their years-long §§ 102/103 inquiries. It is nonsense to assert that a particular claim limitation is unknown and nonobvious under the evidence-intensive standards of §§ 102/103 but well-known, routine, and conventional as an issue of law under § 101. "Whether a claim element or combination is well-known, routine, and conventional is a question of fact. *Berkheimer*, 890 F. 3d at 1374.

Until the courts follow the edicts of *Diehr* to address claims as a whole, and the edicts of *Bilski*, *Alice Corp.*, and *Mayo* to make step one determinations based on evidence with preemption in mind, step one of *Alice-Mayo* will remain a capricious endeavor that violates Supreme Court precedent.

On the other hand, Appellant Killian is open to the Federal Circuit explaining exactly how judges determine whether a claim directed to a man-made thing considered as a whole is “well-known, routine, and conventional” without evidence.

VI. The Federal Circuit Must Address What Is Meant By “Inventive Concept” and “Significantly More”

The Decision (page 15) states, “Mr. Killian has not even established the premise of his argument that ‘inventive concept’ is the same thing as the ‘invention’ requirement which [Killian] attributes to *Hotchkiss v. Greenwood*.” As an initial issue, Killian’s citations prove it was *the United States Supreme Court that attributed “invention” to Hotchkiss*, not Appellant Killian. See Killian’s citations at OpBr at pp. 35-36. Furthermore, decades ago Judge Rich recognized that “inventive concept” is “invention” stating, “[t]erms like . . . ‘inventive concept’ no longer have any useful place in deciding questions [of patentability] in the 1952 Patent Act, notwithstanding their universal use in cases from the last century and the first half of this one.” *In re Bergy*, 596 F.2d 952, 961 (C.C.P.A. 1979). Forty-three years later, as with “invention,” the test for “inventive concept” as now practiced by the USPTO is so capricious that the PTAB lied about the issue to Killian rather than provide an honest answer.

The only attempt Killian is aware of any court attempting to define “inventive concept” occurred in the *en banc CLS Bank v. Alice Corp.* decision where Judge Lourie stated:

“An ‘inventive concept’ in the § 101 context refers to a genuine human contribution to the claimed subject matter. . . . Accordingly, an ‘inventive concept’ under § 101—in contrast to whatever fundamental concept is also represented in the claim—*must be ‘a product of **human ingenuity**’*” (emphasis added) *CLS Bank Int’l v. Alice Corp.*, 717 F.3d 1269, 1283 (Fed. Cir. 2012)

The immediate problem with this human ingenuity standard is that “ingenuity” is a synonym for “inventiveness.” Such a standard makes the test for inventive concept an exercise in circular logic.

Judge Rader (joined by Judges Linn, Moore, and O’Malley) recognized the problem of “inventive concept” and issued a lengthy warning on “invention” and the capriciousness it wrought before the 1952 Patent Act. Specifically, Judge Rader criticized the above definition of “inventive concept” and surmised, “[i]t is inconceivable to us that the Supreme Court would choose to undo so much of what Congress tried to accomplish in the 1952 Patent Act, and to do so by the use of one phrase in one opinion.” *Id.* at 1303, fn 5.

Further, on those occasions where the Federal Circuit gives some example of what is believed to be an invention concept, such never survives. For

instance, *Electric Power Group* states the claims at issue failed step two because “[t]he claims in this case do not even require a new source or type of information, or new techniques for analyzing it.” Why this is necessary is not explained. However, if a new source of data amounts to an “inventive concept,” the claims *sub judice* use a new source of data, i.e., “information on parents and spouses of disabled people,” to solve a problem that was never previously solved. Unfortunately, what was expressly suitable as an “inventive concept” in *Electric Power Group* is now not suitable for the present claims. The citation of *Electric Power Group* against Killian is not only capriciously selected, but *Electric Power Group* is capriciously dissected given that the Decision uses the step one analysis of *Electric Power Group* to condemn Killian’s claims but refuses to apply the step two analysis of *Electric Power Group* to exonerate Killian’s claims.

Still further, in the recent case of *Weisner v. Google, LLC*, Appeal No. 21-2228, (Fed.Cir. Oct. 13, 2022) slip op. at p. 25, the Federal Circuit (citing *DDR Holdings*) held that an “inventive concept” was present in a set of claims “because they provide a ‘specific way’ to solve the problem” while ignoring the fact that the claims could be performed under the defunct “mental steps” theory on a generic computer.

However, Killian’s claims contain more specificity than any claim in *DDR Holdings* and four

times the detail of claim 13, which merely “serve a composite web page to the visitor computer wit[h] a look and feel based on the look and feel description in the data store.” *DDR Holdings*, 773 F.3d at 1249. What does this “look and feel” thing of *DDR Holdings* entail? How does one change a “feel” of a web page? Under *DDR Holdings*, the Federal Circuit found this specificity requirement to be low, and Killian undoubtedly meets it.

The ugly truth is that “inventive concept” is a capricious judicial veto. Forty-four years after Justice Steven’s coined “inventive concept,” it’s time the Federal Circuit take collective responsibility and define the term, or admit the term cannot be defined in any meaningful way.

**RELEVANT CONSTITUTIONAL
PROVISIONS**

**Fifth Amendment of the Constitution of the
United States**

No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject for the same offence to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

**Article I, Section 8, Clause 8 of the
Constitution of the United States**

The Congress shall have Power . . .

To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.

RELEVANT STATUTES

Title 35 U.S.C. § 101 - Inventions patentable

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Title 35 U.S. Code § 102 - Conditions for patentability; novelty

(a)NOVELTY; PRIOR ART.—A person shall be entitled to a patent unless—

(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention; or

(2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b), in which the patent or application, as the

case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.

(b) EXCEPTIONS.—

(1) DISCLOSURES MADE 1 YEAR OR LESS BEFORE THE EFFECTIVE FILING DATE OF THE CLAIMED INVENTION.—

A disclosure made 1 year or less before the effective filing date of a claimed invention shall not be prior art to the claimed invention under subsection (a)(1) if—

(A) the disclosure was made by the inventor or joint inventor or by another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor; or

(B) the subject matter disclosed had, before such disclosure, been publicly disclosed by the inventor or a joint inventor or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor.

(2) DISCLOSURES APPEARING IN APPLICATIONS AND PATENTS.—A disclosure shall not be prior art to a claimed invention under subsection (a)(2) if—

(A) the subject matter disclosed was obtained directly or indirectly from the inventor or a joint inventor;

(B) the subject matter disclosed had, before such subject matter was effectively filed under subsection (a)(2), been publicly disclosed by the inventor or a joint inventor or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor; or

(C) the subject matter disclosed and the claimed invention, not later than the effective filing date of the claimed invention, were owned by the same person or subject to an obligation of assignment to the same person.

(c) COMMON OWNERSHIP UNDER JOINT RESEARCH AGREEMENTS.—Subject matter disclosed and a claimed invention shall be deemed to have been owned by the same person or subject to an obligation of assignment to the same person in applying the provisions of subsection (b)(2)(C) if—

(1) the subject matter disclosed was developed and the claimed invention was made by, or on behalf of, 1 or more parties to a joint research agreement that was in effect on or before the effective filing date of the claimed invention;

(2) the claimed invention was made as a result of activities undertaken within the scope of the joint research agreement; and

(3) the application for patent for the claimed invention discloses or is amended to disclose the

names of the parties to the joint research agreement.

(d) PATENTS AND PUBLISHED APPLICATIONS EFFECTIVE AS PRIOR ART.—For purposes of determining whether a patent or application for patent is prior art to a claimed invention under subsection (a)(2), such patent or application shall be considered to have been effectively filed, with respect to any subject matter described in the patent or application—

(1) if paragraph (2) does not apply, as of the actual filing date of the patent or the application for patent; or

(2) if the patent or application for patent is entitled to claim a right of priority under section 119, 365(a), 365(b), 386(a), or 386(b), or to claim the benefit of an earlier filing date under section 120, 121, 365(c), or 386(c), based upon 1 or more prior filed applications for patent, as of the filing date of the earliest such application that describes the subject matter.

**Title 35 U.S. Code § 103 - Conditions for
patentability; non-obvious subject matter**

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in

section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

Title 35 U.S. Code § 112 – Specification

(a) IN GENERAL.—

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

(b) CONCLUSION.—

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

(c) FORM.—

A claim may be written in independent or, if the nature of the case admits, in dependent or multiple dependent form.

(d) REFERENCE IN DEPENDENT FORMS.—

Subject to subsection (e), a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

(e) REFERENCE IN MULTIPLE DEPENDENT FORM.—

A claim in multiple dependent form shall contain a reference, in the alternative only, to more than one claim previously set forth and then specify a further limitation of the subject matter claimed. A multiple dependent claim shall not serve as a basis for any other multiple dependent claim. A multiple dependent claim shall be construed to incorporate by reference all the limitations of the particular claim in relation to which it is being considered.

(f) ELEMENT IN CLAIM FOR A COMBINATION.—

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Title 5 U.S.C. § 706. Scope of review

To the extent necessary to decision and when presented, the reviewing court shall decide all relevant questions of law, interpret constitutional and statutory provisions, and determine the meaning or applicability of the terms of an agency action. The reviewing court shall-

(1) compel agency action unlawfully withheld or unreasonably delayed; and

(2) hold unlawful and set aside agency action, findings, and conclusions found to be-

(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;

(B) contrary to constitutional right, power, privilege, or immunity;

(C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right;

(D) without observance of procedure required by law;

(E) unsupported by substantial evidence in a case subject to sections 556 and 557 of this title or otherwise reviewed on the record of an agency hearing provided by statute; or

(F) unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court.

In making the foregoing determinations, the court shall review the whole record or those parts of it cited by a party, and due account shall be taken of the rule of prejudicial error.

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(adding/determining OR admin/determine OR admin determines OR admin/submitting OR admin/selected OR admin/submit) AFD/NOV-17YEAR-NDW

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Date Range* All years Last 20 years
Word Stemming On Off
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* Entering date parameters in this box will override the "Date Range" buttons.

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Note that most fields support phrase (ABST/keyword box), Proximity (ABST/keyword box~5), Wildcard (ABST/keyword*) and Leading Wildcard (ABST/*keyword) queries. Some fields support range queries and math operations. Only basic examples are provided below.

Field Abbr.	Field Name	Type	Syntax Example and Comments
AADR	Assignee Address (complete string)	Text	AAOR/California AAOR/Route 65*
ABST	Abstract	Text	ABST/weight ABST/Titanium steel*
AC	Assignee City	Text	AC/Paris AC/New York*
ACLM	Claims	Text	ACLM/ cardboard box*
ACN	Assignee Country	Text	ACN/JP or ACN/US
AGT	Agent	Text	AGT/Bacon & Thomas*
AGTC	Agent Address City	Text	AGTC/Paris
AGTON	Agent Country	Text	AGTON/JP
AGTN	Agent Name ?	Text	AGTN/Smith
ANI	Assigner Name ?	Text	ANI/Smith
APD	Filing Date	Date ?	Single Date: APD/1/25/2012 Range: APD/11/1790-1231/2001

8:08 PM 3/15/2023

The screenshot shows a web browser window with the following elements:

- Browser Tabs:** FPO IP Research & Commerce, Patent Public Search (USPTO), FPO IP Research & Commerce.
- Address Bar:** https://www.fpoipresearchonline.com/result.html?ip=1ª_dater=ts&srch=aprcsr&query_xst=%3dª_in%3d%2fdetermining+OR+ª_in%3d%2fdetermine+OR+ª_in%3d%2fdetermin...
- Search Bar:** "Enter your search here" with a search button and filters for "US Patents/Apps" and "Other".
- Navigation:** "SEARCH", "TOOLS & RESOURCES", "Match", "Document", "Document Title", "Score".
- Results Table:**

Match	Document	Document Title	Score
1	8355466	Transmitting a signal from a power amplifier A method for limiting peak-average power of a signal transmitted from a power amplifier. The method comprises: applying a pulse-shape filter to a first signal, thereby generating a second...	1000
2	10343023	Method for filtering documents and electronic device Embodiments of the present disclosure relate to a method and apparatus for document retrieval. The method comprises: determining, in response to receiving a request to retrieve a document from a...	740
3	9995774	Frequency estimation Determining a property of an electrical signal at a node instant at the current instant (INSTC); determining a previous function indicative of a property of the signal at the node at a previous...	739
4	8979849	Information processing device that changes a determination area of an image candidate based on positional relationships between image candidates, control method for information...	

Additional elements on the page include "Ads by Google" with a "Stop seeing this ad" button, a "Why this ad?" link, and a "Search" button with a dropdown menu.

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 US Patent Applications
 EP documents
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 WIPO (PCT)
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* Entering date parameters in the box will override the "Date range" buttons.

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Note that most fields support Phrase (ABST"cardboard box"1, Proximity (ABST"cardboard box"-5), Wildcard (ABST"card*") and leading Wildcard (ABST"redcm*) queries. Some fields support range queries and math operators. Only basic examples are provided below.

Field Abbr.	Field Name	Type	Syntax Example and Comments
AADR	Assignee Address (complete string)	Text	AAOR/California AAOR/Route 66"
ABST	Abstract	Text	ABST/widgel ABST"Titanium steel"
AC	Assignee City	Text	AC/Paris AC/New York"
AQML	Claims	Text	AQML"cardboard box"
ACN	Assignee Country	Text	ACN/JP or/AC/US
AGT	Agent	Text	AGT/Bason & Thomas"
AGTC	Agent Address City	Text	AGTC/Paris
AGTON	Agent Country	Text	AGTON/JP
AGTN	Agent Name ?	Text	AGTN/Smith
AN	Assignee Name ?	Text	AN/Smith
APD	Filing Date	Date ?	Single Date: APD/1/5/2012 Range: APD/1/1/1990->12/31/2001

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 3/18/2023

The screenshot shows a search results page for EPO (European Patent Office). The page includes a search bar, navigation links, and a table of search results. The table has columns for Match, Document, Document Title, and Score. The search results are as follows:

Match	Document	Document Title	Score
1	10994022	Detection and treatment of malignant tumours in the CNS The present invention concerns methods of diagnosing and treating a malignant neoplasm of the CNS by detecting mammalian tissue expressing integrin alpha 10 subunit or a fragment or variant...	1000
2	10994103	Drug-coated balloon catheters for body lumens Various embodiments disclosed relate to drug-coated balloon catheters for treating strictures in body lumens and methods of using the same. A drug-coated balloon catheter for delivering a...	1000
3	10994130	Devices and methods for repairing damage to a nerve An example device for repairing a nerve is described herein. The device can include a flexible center layer made of a biologic material, and a metallic support member including a plurality of...	1000
4	10994211	Game processing program, game processing method, and game processing device A game processing device changes a movement direction of a moving object from a first	1000

The page also features a search bar with the text "Enter your search here", a "SEARCH" button, and a "US Patents/ Apps" button. There are also links for "Tools & Resources" and "Ads by Google". The browser's address bar shows the URL: https://www.epo-datadownload.com/result.html?ip=18edfd_alter=8&rd=epo&rd=query:1&A=4P2923NCH=1715&R=-NCH&update=on&date_range=all&stemming=...