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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JIANYING HU, BUYUE QIAN, FEI WANG, JUN WANG, and XIANG WANG

Appeal 2019-003728
Application 14/097,995
Technology Center 3600

Before CARL W. WHITEHEAD JR., DAVID M. KOHUT, and IRVIN E. BRANCH, *Administrative Patent Judges*.

PER CURIAM

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the Examiner's decision to reject claims 1–6, 8–17, and 19–21. Appeal Br. 1. Claims 7 and 18 are canceled. Appeal Br., Claims Appendix. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] We use "Appellant" to reference the applicant as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as "INTERNATIONAL BUSINESS MACHINES CORPORATION." Appeal Br. 3.

STATEMENT OF THE CASE

APPELLANT'S INVENTION

According to Appellant's "Description of the Related Art" (Spec. 1 (heading for *id.* ¶¶ 2–4)), "[p]atient risk stratification [performs] . . . patient cohort segmentation such that patients in each group share similar risks . . . , e.g., the onset of congestive heart failure (CHF)" (*id.* ¶ 2). "A major challenge for risk stratification is the heterogeneity of patients' clinical conditions[; e.g.], CHF patients have different comorbidities, such as diabetes, kidney diseases, lung diseases, etc." *Id.* ¶ 3. "It [therefore] makes more sense to first segment the patient cohort into risk groups with consistent clinical conditions, and then construct the prediction model using customized risk factors" (*id.*) "incorporated from domain experts (e.g., physicians) . . . [and] validated by extensive clinical studies" (*id.* ¶ 4). In view of the above:

> The present [invention] formulate[s] an objective function that receives as input a patient similarity graph and expert knowledge domain (e.g., known risk factors) . . . . The objective function . . . determine[s] a first set of patient risk groups from patients in a patient similarity graph . . . . A second set of patient risk groups are identified based on expert domain knowledge . . . . Patients in the first set and second set are aligned for patient stratification.

Id. ¶ 16. Claim 1, reproduced below with added emphasis,[2] is illustrative of the claimed subject matter.

> 1. A method for patient stratification, comprising:
>
> determining a first set of patient groups from patients in a patient similarity graph using a similarity structure of the

[2] The Examiner finds the unemphasized portions correspond to "judicial exceptions" of patent-eligible subject matter and the emphasized portions correspond to "additional elements." *See infra* (Steps 2A(1) and (2)).

> patient similarity graph comprising nodes that represent patients and edges that each represent a similar medical condition for connected nodes;
>
> identifying a second set of patient groups based on expert domain knowledge associated with the patients;
>
> aligning patients in the first set and the second set ***using a processor*** to stratify patients, the alignment of patients including minimizing an objective function based on a soft assignment of patients into the first set of patient groups and the second set of patient groups, to output a set of risk groups, each of which includes patients having consistent clinical conditions, wherein soft assignment comprises assigning a non-binary value for each patient's membership in each group; and
>
> delivering personalized healthcare to the stratified patients using a customized treatment plan based on a prediction model specific to the patients' respective risk groups.

Appeal Br., Claims Appendix.

REJECTIONS

Claims 1–6, 8–17, and 19–21 stand rejected under 35 U.S.C. § 101 as being directed to a judicial exception. Final Act. 7–12.

Claims 1–6, 8–17, 19, and 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Wong (US 5,976,082; Nov. 2, 1999), Nigam (US 2013/0226616 A1; Aug. 29, 2013), Dutta (US 2010/0312798 A1; Dec. 9, 2010), and Friedlander (US 2008/0082356 A1; Apr. 3, 2008). Final Act. 13–20.

OPINION

REJECTION OF CLAIMS 1–6, 8–17, AND 19–21 UNDER 35 U.S.C. § 101

Claims 1–6, 8–17, and 19–21 are argued as a group. Appeal Br. 12

(heading "B").[3] We select claim 1 as representative. 37 C.F.R. § 41.37(c)(1)(iv). For the following reasons, we are unpersuaded of error in the rejection of claim 1.

Principles of Law

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) (citation omitted).

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*. *Alice*, 573 U.S. 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. Kappos*, 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

[3] In addition to addressing all claims as a group, Appellant cursorily contends the Examiner failed to address the dependent claims. Appeal Br. 15. The Examiner correctly responds that findings for all dependent claims were provided within the Advisory Action mailed October 12, 2018. Ans. 5.

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 (1853))); 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 187; *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 (citation 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.*

PTO Guidance

The PTO provides guidance for 35 U.S.C. § 101. USPTO's 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Guidance"); *see also* USPTO, *October 2019 Update: Subject Matter Eligibility*, 84 Fed. Reg. 55942 (October 17, 2019) ("Update"). 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, and 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) (9th ed. 2018)).

84 Fed. Reg. at 52−55. If a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, we then conclude the claim is directed to a judicial exception (*id.* at 54) and 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.

Id. at 56.

Step 1: Does Claim 1 Fall within a Statutory Category?

There is no dispute that the claimed subject matter falls within a 35 U.S.C. § 101 category of patentable subject matter. Final Act. 8 ("statutory categories (i.e., a process)"); *see also* Guidance, 84 Fed. Reg. at 53−54 ("Step 1").

Step 2A(1)[4]: Does Claim 1 Recite Any Judicial Exceptions?

We agree with the Examiner that claim 1 recites—and, more particularly, describes—judicial exceptions. *See* Update. Specifically, we agree:

> [Claim 1 is] drawn to a method for stratifying patients from a first set of patient groups determined from patients in a similarity graph using a similarity structure with nodes

[4] The Guidance separates the enumerated issues (1) to (4) (*see supra*, PTO Guidance) into Steps 2A(1), 2A(2), and 2B, as follows:

> [T]he revised procedure . . . focuses on two aspects [of whether a claim is "directed to" a judicial exception under the first step of the *Alice/Mayo* test (USPTO Step 2A)]: (1) [w]hether the claim recites a judicial exception; and (2) whether a recited judicial exception is integrated into a practical application. [W]hen a claim recites a judicial exception and fails to integrate the exception into a practical application, . . . further analysis pursuant to the second step of the *Alice/Mayo* test (USPTO Step 2B) . . . is needed . . . in accordance with existing USPTO guidance as modified in April 2018.[footnote omitted]

84 Fed. Reg. at 51.

> representing patients and edges that represent similar medical conditions for connected nodes and a second set of patient groups based on expert knowledge, aligning the first and second sets using an objective function based on a non-binary soft-assignment of patients into the sets to output a set of risk groups including patients with consistent conditions, to deliver healthcare to the stratified patients using a treatment plan based on a specific prediction model[.]

Final Act. 7–8. We also agree each claim step encompasses judicially excepted subject matter, as identified in reproduced claim 1. Final Act. 9; *supra* n.2. As the Examiner finds, each of those identified limitations:

> [i] organizes information (patient information) through mathematical correlations (patient information is stratified with other patient information); and/or
>
> [ii] . . . collects information (patient and patient group information), analyzes it (aligns patient groups based on expert knowledge and using similarity graphs), and displays certain results (aligned patients are stratified) of the collection and analysis;[5] and/or
>
> [iii] . . . compares data to determine a risk level (patient and patient group data is compared to stratify patients).

Final Act. 9–10.

We add that the above activities plainly fall within the categories of judicial exceptions enumerated by the Guidance. *See* 84 Fed. Reg. at 52 (categories). The claimed graphing of data, comparing of included nodes, and minimizing of a function (corresponding to activities [i]) encompass "[m]athematical concepts [including] mathematical relationships . . . [and] calculations." *Id.*; *see also* Final Act. 9 (referencing *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014) to identify

[5] We address these identified limitations, i.e., activities [ii], with respect to Step 2A(2).

these activities as encompassing calculations via a mathematical formula). The claimed identifying of patient groups based on expert domain knowledge, aligning of patients, assigning of patients to groups, and delivering of personalized healthcare based on a model of risk groups (corresponding to activities [iii]) encompass "[m]ental processes [including] . . . an observation, evaluation, judgment." 84 Fed. Reg. at 52; *see also* Final Act. 10 (referencing *PerkinElmer, Inc. v. Intema Ltd.*, 496 F. App'x 65 (Fed. Cir. 2012) to identify these activities as encompassing mental steps of healthcare professionals).

For the foregoing reasons, claim 1 recites judicial exceptions.

Step 2A(2): Are the Recited Judicial Exceptions Integrated Into a Practical Application?

We agree with the Examiner that claim 1's additional elements do not integrate the judicial exceptions into a practical application. *See* Guidance, 84 Fed. Reg. at 53 (describing a "practical application" as a "meaningful limit on the [recited judicial exceptions], such that the claim is more than a drafting effort designed to monopolize the [exceptions]"); *id.* at 55 ("exemplary considerations . . . indicative [of] . . . a practical application"). Specifically, we agree the additional elements are as identified in reproduced claim 1 (*see supra* n.2) and include only the claimed "using a processor" to perform the stratifying of patients. Final Act. 9. We also agree the claimed use of the processor "[is a] mere application of [a] generic computer component[]." Advisory Act., Oct. 12, 2018, Cont'n Sheet, at 1.

We add that pairing the recited judicial exceptions with the collection, analysis, and display of data for patient stratification (corresponding to the above activities [ii]) limits the invention's field of use to its related art. *See*

supra, Appellant's invention (description of the related art); *see also* Final Act. 10 (referencing *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016) to identify these activities as mere field of use limitations); 830 F.3d at 1351 ("[C]ollection, analysis, and display of available information in a particular field . . . , without . . . technical means for performing the[se] functions . . . , defin[e] a . . . result and not . . . means of achieving the result."). "Even though such field-of-use limitations prevent a claim from wholly pre-empting [judicial exceptions], . . . they describe only the context rather than the manner of achieving a result." *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1311 (Fed. Cir. 2016); *see also id.* ("The Pythagorean Theorem cannot be made eligible by confining its use to existing surveying techniques, nor can the business practice of hedging risk . . . by confining its use to the commodities and energy markets, nor the goal of gathering and combining data by confining its use to particular types of photographic information." (internal quotation marks and citations omitted)).

For the foregoing reasons, claim 1 is directed to the recited judicial exceptions—not to a practical application thereof.

Step 2B: Does Claim 1 Recite Anything That Is Beyond the Recited Abstract Ideas and Not a Well-Understood, Routine, Conventional Activity?

We agree claim 1's additional elements—the claimed use of a processor to perform the stratifying of patients—require only a "conventional hardware" processor such as a processor of a general-purpose computer. Final Act. 11; *see also* Spec. ¶ 22 (disclosing such a processor). We also agree that addition of a "general-purpose computer has been determined by the courts to be a well-understood, routine, and conventional

element (see, e.g., *Alice* [and] . . . MPEP 2106.05(d)).” Final Act. 11; *accord Alice*, 573 U.S. at 222 (“[I]ntroduction of a computer . . . does not alter the analysis[, e.g.,] . . . claim[ing] an algorithm implemented on a general-purpose digital computer.” (internal quotation marks and citation omitted)); MPEP § 2106.05(d)(II) (“nothing more than generic computer functions merely used to implement an abstract idea”).

For the foregoing reasons, claim 1’s additional elements append only conventional technology to the judicial exceptions.

Appellant’s Arguments

We have reviewed Appellant’s arguments. Appeal Br. 12–15. In view of the above analysis, we are unpersuaded the Examiner erred. At the outset, we repeat that the Examiner has shown the claim limitations encompass only judicial exceptions described by the Guidance (*see supra* Step 2A(1)) and technology described by judicial precedent as conventional (*see supra* Step 2B). The Examiner has also shown claim 1’s ordered combination of activities and technology requires only to execute the judicial exceptions on a generic processor (the claimed use of a processor to perform the stratifying of patients) and/or within the invention’s field of use. *See* s*upra* Step 2A(2).

Appellant contends the Examiner errs by concluding claim 1 is analogous to patent-ineligible claims of *Elec. Power Grp.*, *Digitech*, and *PerkinElmer*. Appeal Br. 12–14. We are unpersuaded because, as discussed above, the Examiner’s findings satisfy the Guidance’s procedure for concluding a claim is directed to judicially-excepted subject matter. *See supra* Steps 2A(1) and (2); *see also* Guidance, 84 Fed. Reg. at 51–52

(explaining the Guidance, alone, can be used to show a claim is directed to judicially-excepted subject matter).

Appellant contends claim 1 is analogous to the patent-eligible claim of *Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057 (Fed. Cir. 2011) because: claim 1 "recite[s] delivering personalized healthcare to the stratified patients using a customized treatment plan based on a prediction model specific to the patients' respective risk groups"; and the *Classen* claim recites an "act of immunization [in] accordance with a lower-risk schedule, thus moving from abstract scientific principle to specific application." Appeal Br. 14 (quoting *Classen*, 659 F.3d at 1067–68); *see also* Reply Br. 6 (emphasis omitted) (addressing the Guidance's discussion of a "particular treatment or prophylaxis for a disease or medical condition" (84 Fed. Reg. at 55), which references *Classen* via footnote (*id.* at n.26)). We are unpersuaded.

First, *Classen* was decided based on *Bilski*. *Classen*, 659 F.3d at 1059 ("We review the question of eligibility with the Court's guidance in *Bilski v. Kappos*."). *Mayo* and *Alice* have since clarified the standard for patent-eligibility under 35 U.S.C. § 101. Per our above analysis, claim 1 is not patent-eligible under the standard set forth by *Mayo* and *Alice*.

Second, *Classen's* immunizing step is not analogous to claim 1's delivering step. *Classen's* immunizing step constitutes a "specific" application of the recited abstract idea. 659 F.3d at 1066–68. Namely, the delivery of healthcare is specifically an immunization and further specified inasmuch that: two groups are immunized under different immunization schedules; the schedules are compared for their respective risks of causing an immune-mediated disorder; and a subject is immunized according to the

above lower-risk schedule. *Id.* at 1060–61. Claim 1's delivering step is not a specific application. Claim 1's delivering step only recites that the healthcare is personalized by a customized treatment plan, which is in turn based on a prediction model of the stratified patients' risk groups. Because the delivering step lacks a ***specified*** treatment plan, prediction model, and risk groups, the delivery and personalization of healthcare is not even determinable—much less sufficiently specific. *See, e.g.*, *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (Describing an abstract idea as a "result," *McRO* distilled the issue of sufficient specificity to whether a claim recites a means of a result that is sufficiently specific to prevent preemption of the result.).

Appellant contends the Examiner errs by construing the claimed "delivering personalized healthcare . . . using a customized treatment plan" as an act of mentally preparing the treatment plan. Reply Br. 6–7; *see also* Ans. 4 (the contested construction). We are unpersuaded because the Examiner's interpretation of the claimed delivering adheres to the plain meanings of the included claim terms. Specifically, the Examiner interprets the claimed "delivering personalized healthcare . . . ***using*** a customized treatment plan" (emphasis added) as delivering personalized healthcare ***including*** a customized treatment plan. Ans. 4 ("personalized healthcare . . . notating a treatment plan"); *accord* "Use," Dictionary.com (retrieved at https://www.dictionary.com/browse/use?s=t on Feb. 5, 2020) ("using" as a "verb (used with object)" means "to employ for some purpose") (emphasis omitted). Appellant does not present a persuasive reason to discard the above plain meaning of "healthcare . . . using" (i.e., healthcare including) from the disputed claim limitation.

For the foregoing reasons, we sustain the rejection of claims 1–6, 8–17, and 19–21 under 35 U.S.C. § 101.

REJECTION OF CLAIMS 1–6, 8–17, 19, AND 20 UNDER 35 U.S.C. § 103 AS UNPATENTABLE OVER WONG, NIGAM, DUTTA, AND FRIEDLANDER

For the following reasons, we are persuaded of error because the record shows the rejection of the independent claims violates the Office's notice requirement. *See, e.g.*, *In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011) (The notice requirement is violated by a failure to provide sufficient information for understanding the grounds for rejection.); *Hyatt v. Dudas*, 492 F.3d 1365, 1370 (Fed. Cir. 2007) (A prima facie case must facilitate the applicant's "effective submission of information.").

Each of the independent claims recites in disputed part: "minimizing an objective function based on a soft assignment of patients [into two groups]."[6] Appeal Br. 19 (disputed subject matter). In the Final Action and post-Final mailings (Advisory Action and Answer), the Examiner presents different veins of findings for the claimed "minimizing an objective function" but neither chooses one nor describes them as alternative findings. Final Act. 16; Advisory Act. 2–3; Ans. 6–7.

[6] Because we reverse in view of the rejection's lack of proper notice, we need not (and do not) consider whether the claimed "based on a soft assignment . . ." describes the claimed "minimizing" or "objective function," much less whether this potential discrepancy would (if considered) merit reversing the prior art rejection on the grounds of indefiniteness. *See In re Steele*, 305 F.2d 859, 863 (CCPA 1962) ("[T]he board [was] wrong in relying on . . . speculative assumptions as to the meaning of the claims and basing a rejection under 35 U.S.C. § 103 thereon."); *Ex parte Miyazaki*, 89 USPQ2d 1207 (BPAI 2008) (precedential) (A prior art rejection falls, *pro forma*, if a disputed claim limitation is amenable to two or more plausible claim constructions. (citing *In re Steele*)).

In the Final Action, the Examiner finds Dutta teaches an objective function that is based on assigning a patient into a group and Friedlander teaches minimizing of an objective function to improve grouping of patients. Final Act. 16. When viewed in light of the cited prior art, the Examiner's statements indicate two further findings. Namely, the Examiner finds Dutta teaches an objective function that is based on assigning a patient into a group (clinical profile (CP) such as diabetes) inasmuch that a patient is ascribed a value for each specification of a group (yes=1 or no=0 for specification variables such as "HgbAlc" and "nephropathy"), those input values are weighted to yield respective values (function), the maximum specification value is the output value (objective function), and that value determines membership in the group (confers membership if above a threshold). *Id.* ("[Dutta's] objective function . . . is the determination of a final membership value for each clinical profile group, . . . where the patient case is assigned three weighted values for each clinical profile group, and then the objective function determines a final value for each group. One method is to take the maximum value." (citing Dutta ¶¶ 29, 36–39)). The Examiner finds Friedlander suggests minimizing Dutta's above output value (and, thus, minimizing an objective function) inasmuch that Friedlander plots patients by their values for medical characteristics and then chooses a cohort of patients (a cluster) that minimizes the sum of the Euclidean distances between the respective plots. *Id.* (citing Friedlander ¶¶ 7, 8, 30, 40, 56, and 67).

In the post-Final mailings, the Examiner significantly changes the rejection's reliance on Dutta and Friedlander by quoting the Final Action's above-noted portion (page 16) and "clarif[ying]" the findings. Advisory

Act. 2–3; Ans. 6–7. The Examiner therein finds that Dutta teaches to minimize a function (not an objective function, as above) based on assigning a patient into groups and Friedlander teaches an objective function (not minimizing such a function, as above) based on assigning a patient into groups. *Id.*; *see, e.g.*, Ans. 6 ("Dutta . . . discloses a connection between a function and the soft assignment. Friedlander . . . discloses the use of an objective function when assigning patient records to groups."). When viewed in light of the quoted portion of the Final Action, the Examiner's statements indicate two further findings. Namely, the Examiner finds Dutta's assigning of a patient into a group (CP) based on the maximum specification value (see above) would "minimize" a function if reconfigured such that the minimum specification value determines membership in the group (yes=0 and no=1 for specification values and the lowest value confers membership if below a threshold). Advisory Act. 2–3; Ans. 6–7. The Examiner finds Friedlander suggests applying this reconfigured function as an objective function. *Id.*

Furthering the above inconsistency, consecutive pages of the Answer's response to arguments express both veins of findings. Ans. 6–7. Mirroring the above findings of the Final Action, one page states: "Dutta discloses an objective function[.] Friedlander discloses minimizing an objective function." Ans. 7. Mirroring the above findings of the post-Final mailings, another page states: "Dutta is not used to disclose an objective function" (Ans. 6); "Dutta . . . discloses a connection between a function [and patient assignment]. Friedlander . . . discloses . . . use of an objective function [for a patient assignment]" (*id.*).

Appellant's arguments show the inconsistency of the Examiner's findings. Appellant reasonably contends:

> On one hand, the Examiner states . . . "Dutta teaches the consideration of a function . . . [for] the soft assignment of patients . . . Friedlander discloses the use of an objective function [for] assigning patient[s.]" . . . On the other hand, the Examiner . . . states that "Dutta discloses an objective function[."] Given this contradiction, Appellant cannot effectively rebut the Examiner's argument[.]

Reply Br. 7–8 (emphasis omitted).

Appellant's arguments also show a deficiency of both veins of findings. Namely, the Examiner does not explain how Dutta's cited function ***for assigning an individual*** to a group would be modified to incorporate a feature of Friedlander's function for minimizing Euclidean distances ***between assigned individuals*** of a group. Appeal Br. 20; Reply Br. 8–9.

Accordingly, for the foregoing reasons, we do not sustain the rejection of claims 1–6, 8–17, 19, and 20 under 35 U.S.C. § 103.

Conclusion

We affirm the Examiner's decision to reject claims 1–6, 8–17, and 19–21.[7]

[7] "The affirmance of the rejection of a claim on any of the grounds specified constitutes a general affirmance of the decision of the examiner on that claim." 37 C.F.R. § 41.50.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–6, 8–17, 19–21	101	Eligibility	1–6, 8–17, 19–21	
1–6, 8–17, 19, 20	103	Wong, Nigam, Dutta, Friedlander		1–6, 8–17, 19, 20
Overall Outcome			1–6, 8–17, 19–21	

TIME PERIOD FOR RESPONSE

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