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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SAMI HUOVILAINEN

Appeal 2017-001833
Application 13/644,124
Technology Center 3600

Before TARA L. HUTCHINGS, AMEE A. SHAH, and
MATTHEW S. MEYERS, *Administrative Patent Judges*.

SHAH, *Administrative Patent Judge*.

DECISION ON APPEAL¹

The Appellant² appeals under 35 U.S.C. § 134(a) from the Examiner’s final decision rejecting claims 1–17, which are all of the pending claims. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

STATEMENT OF THE CASE

The Appellant’s invention “relates generally to the field of analyzing customer data, and more particularly to methods and systems for optimizing

¹ Throughout this Decision, we refer to the Appellant’s Appeal Brief (“Br.,” filed Apr. 25, 2016) and Specification (“Spec.,” filed Oct. 3, 2012), and to the Examiner’s Answer (“Ans.,” mailed Sept. 6, 2016), and Final Office Action (“Final Act.,” mailed Nov. 25, 2015).

² According to the Appellant, the real party in interest is Citicorp Credit Services, Inc. (USA). Br. 2.

marketing strategy to financial institution customers or prospective customers.” Spec. ¶ 1.

Claims 1, 16, and 17 are the independent claims on appeal. Claim 1 (Br. 27 (Claims App.)) is exemplary of the subject matter on appeal and is reproduced below (lettered bracketing added for reference).

1. A method of optimizing marketing strategy to financial institution customers or prospective customers, comprising:

[(a)] receiving, by one or more processors of a financial institution, anonymous financial institution customer profile data consisting at least in part of anonymous transaction card account behavior information of customers of the financial institution with a plurality of financial institutions that issue transaction cards other than the financial institution;

[(b)] developing, using the one or more processors of the financial institution, models based at least in part on the anonymous financial institution customer profile data consisting at least in part of the anonymous transaction card account behavior information of the customers of the financial institution with the plurality of financial institutions that issue transaction cards other than the financial institution and at least in part on non-anonymous financial institution information and non-anonymous financial institution customer credit bureau data;

[(c)] generating, by the one or more processors of the financial institution, estimated spend and balance behaviors for at least one financial institution customer with the plurality of financial institutions that issue transaction cards other than the financial institution based at least in part on said models; and

[(d)] creating, by the one or more processors of the financial institution, financial institution marketing initiatives based at least in part on said estimated spend and balance behaviors of the at least one financial institution customer with the plurality of financial institutions that issue transaction cards other than the financial institution.

REJECTIONS

I. Claims 1–17 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

II. Claims 1–17 stand rejected under AIA 35 U.S.C. § 112(a)³ as failing to comply with the written description requirement.

III. Claims 1–17 stand rejected under AIA 35 U.S.C. § 112(b) as being indefinite.

IV. Claims 1–5 and 8–17 stand rejected under pre-AIA 35 U.S.C. § 103(a)⁴ as being unpatentable over Heiser, II et al. (US 2008/0091535 A1, pub. Apr. 17, 2008) (hereafter “Heiser”), Megdal et al. (US 2008/0033852 A1, pub. Feb. 7, 2008) (hereafter “Megdal”), and Gandhi (US 8,666,812 B1, iss. Mar. 4, 2014), Zollino et al. (US 2008/0086365 A1, pub. Apr. 10, 2008) (hereafter “Zollino”), and Heiser, II et al. (US 8,234,159 B2, iss. July 31, 2012) (hereafter “Heiser II”).

V. Claims 6 and 7 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Heiser, Megdal, Gandhi, Zollino, Heiser II, Kalia et al. (US 8,401,947 B2, iss. Mar. 19, 2103) (hereafter “Kalia”),⁵ and Burgess et al. (US 2012/0005053 A1, pub. Jan. 5, 2012) (hereafter “Burgess”).

³ Because this application was filed after September 16, 2012, pre-AIA 35 U.S.C. § 112 is not applicable. 35 U.S.C. § 112.

⁴ Because this application was filed before March 16, 2003, pre-AIA § 103(a) is applicable. 35 U.S.C §§ 100, 103.

⁵ Although the Examiner refers to this reference as “Prashant” (Ans. 3; Final Act. 46), the first named inventor is “Prashant Kalia,” and the patent is issued to “Kalia et al.”

ANALYSIS

Rejection I — Patent-Ineligible Subject Matter — § 101

The Appellant argues claims 1–17 as a group. *See* Br. 8, 16. We select claim 1 as representative of the group; claims 2–17 stand or fall with claim 1. *See* 37 C.F.R. 41.37(c)(1)(iv).

Under 35 U.S.C. § 101, a patent may be obtained for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” The Supreme Court has “long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 588–89 (2013) (internal quotations omitted)).

The Supreme Court in *Alice* reiterated the two-step framework, set forth previously in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 78–79 (2012), “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. at 2355. The first step in that analysis is to “determine whether the claims at issue are *directed to* one of those patent-ineligible concepts.” *Id.* (emphasis added) (citing *Mayo*, 566 U.S. at 79). If so, the second step is to consider the elements of the claims “individually and ‘as an ordered combination’” to determine whether the additional elements “‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 566 U.S. at 78–79).

We first address the Appellant’s argument that “the Examiner has failed to meet the initial burden of presenting a *prima facie* case of ineligible subject matter” because the “rejection lacks evidence, articulated reasoning and analysis” to “establish a basis for alleging” that the claims are directed to an abstract idea and do not amount to significantly more than the abstract idea. Br. 8; *see also id.* at 9–12, 15–16. Specifically, the Appellant argues that “the Examiner must provide documentary evidence to support a conclusion that the claims are directed to a judicial exception or that claim limitations are well understood, routine, and conventional.” *Id.* at 9; *see also id.* at 15–16.

Here, in rejecting claim 1 under § 101, the Examiner analyzes the claim using the *Mayo/Alice* two-step framework. Specifically, the Examiner looks to the intrinsic evidence of the claim language as factors in determining that the claim is directed to an abstract ideal. *See* Final Act. 3, 5; Ans. 3–4, 7–10. The Examiner also cites to judicial decisions and compares the concept to those found to be abstract in those decisions. Final Act. 3. The Examiner further considers the claim’s limitations individually and as an ordered combination as factors in determining that the claim does not recite limitations that transformed the nature of the claim into a patent-eligible invention. *See* Final Act. 3–8; Ans. 4–5, 15–17. The Examiner cites to the Specification and compares the elements to judicial decisions as summarized in Office Guidelines for support and evidence for determining that the claim does not contain an inventive concept. *See* Ans. 11, 15–17, 21–22.

Thus, the Examiner has clearly articulated the reasons as to why the claim is directed to an abstract idea and has notified the Appellant of the

reasons for the rejection “together with such information and references as may be useful in judging of the propriety of continuing the prosecution of [the] application.” 35 U.S.C. § 132. In doing so, the Examiner has set forth a prima facie case of unpatentability. *See In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011); *Chester v. Miller*, 906 F.2d 1574, 1578 (Fed. Cir. 1990) (Section 132 “is violated when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection”). We further note that the Examiner has clearly followed the Office’s guidelines.

We find unpersuasive of error the Appellant’s argument that the Examiner has failed to follow the Administrative Procedures Act, which requires that the Examiner’s “determination [to] be . . . based on ‘substantial evidence’” by “provid[ing] documentary evidence to support a conclusion that the claims are directed to a judicial exception or that claim limitations are well understood, routine, and conventional.” Br. 9 (citing *Alice* generally); *see also id.* at 15–16. Although the Court in *Alice* made a direct finding as to what the claims were directed to, the claims before us and the Specification provide enough information to inform one as to what these claims are directed to. There is no requirement that in every situation “the Examiner must cite authoritative documentary evidence, such as textbooks or similar publications to support a conclusion that a claim recites a judicial exception or that certain practices are well known, conventional or routine.” *Id.* at 9–10. Nor, contrary to Appellant’s assertions (*id.* at 12), did this Board hold, in *Ex parte Renald Poisson*, Appeal No. 2012-011084 (PTAB

Feb. 27, 2015), that there is any such requirement.⁶ “Instead of a definition, then, the decisional mechanism courts now apply is to examine earlier cases in which a similar or parallel descriptive nature can be seen—what prior cases were about, and which way they were decided.” *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016)). It is “sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases” (*Enfish*, 822 F.3d at 1334), as the Examiner has done here. “[I]t 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, 1325–26 (Fed. Cir. 2016)); *see also Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018) (“not every § 101 determination contains genuine disputes over the underlying facts material to the § 101 inquiry”).

Evidence may be helpful in certain situations where, for instance, facts are in dispute. For example, in *Berkheimer*, the patent owner presented evidence in the form of portions of the Specification that contradicted the district court’s finding that the claims described well-understood, routine, and conventional activities by describing inventive features that stored data in an unconventional manner that provided technical benefits. 881 F.3d at 1368–69. The court determined that summary judgment was inappropriate for the claims that captured this inventive feature, because there existed a factual dispute as to whether the claims described well-understood, routine, and conventional activities. *Id.* at 1369, 1370.

⁶ We would not be bound, in any event, by a non-precedential decision of the Board.

In contrast, here, the Appellant provides no such evidence, and we find no such evidence, to dispute the Examiner’s finding that the claim limitations recite well-understood, routine, and conventional activities. The Specification, for example, provides for employing generic computer hardware and software, “including, without limitation, one or more processors coupled to memory and non-transitory computer-readable storage media with one or more executable programs stored thereon which instruct the processors to perform the methods and systems” as claimed. Spec. ¶ 4. The Appellant has not made the case that a factual dispute has arisen that additional evidence can help resolve. *See Automated Tracking Sols., LLC v. Coca-Cola Co.*, 723 F. App’x 989, 995 (Fed. Cir. 2018) and *Intellectual Ventures I LLC v. Symantec Corp.*, 725 F. App’x 976, 978 (Fed. Cir. 2018).

Step One of the Mayo/Alice Framework

Turning to the first step of the *Mayo/Alice* framework, we consider the claims “in their entirety to ascertain whether their character as a whole is directed to excluded subject matter.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015). The question is whether the claims as a whole “focus on a specific means or method that improves the relevant technology” or are “directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.” *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016). In other words, the claims are assessed as to whether they “do no more than describe a desired function or outcome, without providing any limiting detail that confines the claim to a particular solution to an identified problem.” *Affinity Labs of Tex., LLC v. Amazon.com Inc.*, 838 F.3d 1266, 1269 (Fed. Cir. 2016).

Under the first step of the *Alice/Mayo* framework, the Examiner determines that the claim is directed to “the abstract idea of developing a marketing strategy for a customer/potential customer,” i.e., “the comparing of new and stored information and using rules to identify options,” an idea of itself, a method of organizing human activity, and a fundamental economic practice. Ans. 7; Final Act. 6.

The Specification is titled “**METHODS AND SYSTEMS FOR OPTIMIZING MARKETING STRATEGY TO CUSTOMERS OR PROSPECTIVE CUSTOMERS OF A FINANCIAL INSTITUTION.**” According to the Specification, the invention “relates generally to the field of analyzing customer data, and more particularly to methods and systems for optimizing marketing strategy to financial institution customers or prospective customers.” Spec. ¶ 1. The Background section of the Specification discusses that “it is important for a card-issuing financial institution, such as a bank, to focus on a customer perspective and to know more about its customers.” *Id.* ¶ 2. The claimed invention “address[es] a financial institution’s need to know how its customers use off-us bankcards and provides the financial institution a comprehensive view of its customers’ spend and balance behavior with other issuers.” *Id.* ¶ 3. To do so, the invention “employ[s] computer hardware and software, including, without limitation, one or more processors coupled to memory and non-transitory computer-readable storage media with one or more executable programs stored thereon which instruct the processors to perform the methods and systems for optimizing marketing strategy to financial institution customers or prospective customers.” *Id.* ¶ 4.

Claim 1 provides for a “method of optimizing marketing strategy to financial institution customers or prospective customers, comprising:”

- (a) receiving by a processor anonymous customer profile data,
- (b) developing using a processor model based on the received data, non-anonymous institution information, and non-anonymous credit bureau data,
- (c) generating by the processor estimated spend and balance behaviors based on the models, and (d) creating by the processor, marketing initiatives based on the behaviors. *See* Br. 27 (Claims App.). The developing of the models comprises employing “statistical tools and estimators.” Spec. ¶ 30. The generating of the behaviors comprises observing, estimating, and/or calculating customer behaviors based on the models. *Id.* ¶¶ 42–45, 53. The computer processor used to perform the functions of the method “may include, but are not limited to, a microprocessor, an application specific integrated circuit (ASIC), and or state machines” (*id.* ¶ 58), a client device that “may be any suitable type of processor-based platform that is connected to a network and that interacts with one or more application programs and may operate on any suitable operating system” (*id.* ¶ 60), or a server device that “may comprise a processor coupled to a computer-readable medium[,] . . . may be a single computer system, may also be implemented as a network of computer processors,” “[e]xamples of such server devices are servers, mainframe computers, networked computers, a processor-based device, and similar types of systems and devices” (*id.*).

In light of Specification’s description of the problem and solution, the purported advance over the prior art by the claimed invention is a way to provide more relevant/targeted marketing based on an analysis of spend and balance behavior data. In that context, claim 1 is directed to developing a

marketing strategy for a customer/potential customer based on generated data.⁷ The claim here is akin to ones our reviewing court has deemed abstract in *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1369–70 (Fed. Cir. 2015) (customizing and tailoring web page content based on navigation history and known user information), *Elec. Power Grp. LLC v. Alstom S.A.*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016) (collecting information and “analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, . . . [are] essentially mental processes within the abstract-idea category”), and *Affinity Labs*, 838 F.3d at 1271 (customizing a user interface to have targeted advertising based on user information). It is also similar to claims deemed abstract by other courts. See *OpenTV, Inc. v. Netflix Inc.*, 76 F.Supp.3d 886, 893 (N.D. Cal. 2014) (“The concept of gathering information about one’s intended market and attempting to customize the information then provided is as old as the saying, ‘know your audience’”); *Bridge & Post, Inc. v. Verizon Commc’ns, Inc.*, No. 3:17-CV-094-JAG, 2018 WL 1336738, at *5 (E.D. Va. Mar. 15, 2018) (“Targeted marketing, or ‘gathering information about one’s intended market and attempting to customize the information then provided,’ is an abstract idea at the first *Alice* step”) (citation omitted); *Morsa v. Facebook, Inc.*, 77 F.Supp.3d 1007, 1013 (C.D. Cal. 2014), *aff’d*, 622 F. App’x 915 (Fed. Cir. 2015) (“First, targeted advertising is just such a concept, insofar as matching consumers with a given product or service ‘has been practiced as

⁷ We note that “[a]n abstract idea can generally be described at different levels of abstraction.” *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016). The Board’s “slight revision of its abstract idea analysis does not impact the patentability analysis.” *Id.* at 1241.

long as markets have been in operation”) (quoting *Tuxis Techs., LLC v. Amazon.com, Inc.*, No. CV 13-1771-RGA, 2014 WL 4382446, at *5 (D. Del. Sept. 3, 2014)).

Here, the claim involves nothing more than receiving, developing, and generating data of a specific content, and presenting content based on the analysis, without any particular inventive technology — an abstract idea. *See Elec. Power*, 830 F.3d at 1354. As such, we find unpersuasive the Appellant’s argument that the claim is not directed to an abstract idea because “it is not a long-prevalent and fundamental practice in comparison to the abstract ideas of risk-hedging and intermediated settlement relied upon by the Court in *Alice Corp.*, which have been in widespread use for many centuries throughout the world.” Br. 10 (emphasis added).

We also find unpersuasive the Appellant’s argument that “the Examiner’s generalized arguments, not directed to the specific language of the claims, are insufficient to support the Examiner’s conclusory allegation that the claims are directed to a patent-ineligible ‘abstract idea’” because “the Examiner’s arguments do not even reference the specific limitations of the claims.” Br. 11. As noted above, the Examiner considers the claim limitations in making the determination that the claim is directed to an abstract idea, and specifically references the claim limitations. Ans. 9–11.

We are further not persuaded by the Appellant’s arguments that the Examiner’s comparison of the present claims to those at issue in *SmartGene, Inc. v Advanced Biological Lab., SA*, 555 F. App’x 950 (Fed. Cir. 2014)) and *In re Maucorps*, 609 F.2d 481 (CCPA 1979) is inapposite. Br. 11. The claim’s developing and generating data based on statistical analyses, observations, estimations, and calculations are not dissimilar to *SmartGene’s*

computerized process of providing information and generating information based on the provided information. *See SmartGene*, 555 F. App'x at 952. Nor is it dissimilar to *Maucorps*' computerized processing of data that calculated values and selected a value based on the calculations. *See Maucorps*, 609 F.2d at 482, 486.

Step Two of the Mayo/Alice Framework

The second step of the *Mayo/Alice* framework is to “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.’” *Alice*, 134 S. Ct. at 2355 (alteration in original) (quoting *Mayo*, 566 U.S. at 72–73).

Under the second step of the *Mayo/Alice* framework, we agree with and find supported the Examiner’s determination that the elements of claim 1, individually or as an ordered combination, do not amount to significantly more than the above-identified abstract idea. *See* Final Act. 4–5, 7–8; Ans. 20–23. We are not persuaded of Examiner error by the Appellant’s arguments that assert the opposite. *See* Br. 13–16. As discussed above, the Specification conveys that the processor recited in the claim is a generic processor. *See, e.g.*, Spec. ¶¶ 4, 58, 60.

We find unpersuasive the Appellant’s arguments that the Examiner erred in not “consider[ing] the entirety of each claim limitation.” Br. 13. The Examiner looks to the claim limitations (Ans. 9–10), alone and in combination, in determining that the claim’s limitations are performed by a generic computer, do not improve the functioning of a computer, do not effect a transformation, do not add a specific limitation other than what it well-understood, routine, and are not meaningful beyond generally linking

the abstract idea to the particular technological environment (Ans. 11). As discussed above, the “computer processing steps” of the claim, i.e., the “limitations as to the source of data, the types of data, the operations performed on the data, how the output is generated, where the data is stored or transmitted” (Br. 14), comprise developing models by employing mathematical algorithms, i.e., “statistical tools and estimators.” (Spec. ¶ 30) and generating behaviors by observing, estimating, and/or calculating customer behaviors based on the models (*id.* ¶¶ 42–45, 53).

In response to the Appellant’s argument that “[t]he present claims do not possibly carry a risk of pre-empting or tying up the entire alleged ‘abstract idea.’” (Br. 15; *see also id.* at 14), we note that although the Supreme Court has described “the concern that drives this exclusionary principle[, i.e., the exclusion of abstract ideas from patent eligible subject matter,] as one of preemption” (*see Alice*, 134 S. Ct. at 2354), characterizing preemption as a driving concern for patent eligibility is not the same as characterizing preemption as the sole test for patent eligibility. “The Supreme Court has made clear that the principle of preemption is the basis for the judicial exceptions to patentability” and “[f]or this reason, questions on preemption are inherent in and resolved by the § 101 analysis.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (citing *Alice*, 134 S. Ct. at 2354). Although “preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Id.* The claimed invention is not sufficiently limiting so as to fall clearly on the side of patent-eligibility.

We also find unpersuasive the Appellant’s argument that the claim is “specific and detailed enough to overcome the prior art.” Br. 15. An

elaboration of an abstract idea does not transform the abstract idea into patent-eligible subject matter when the functions are well-understood, routine, and conventional functions of a generic computer. *Ulramercial, Inc. v. Hulu, LLC*, 772 F.3d 715–16 (Fed. Cir. 2014). Moreover, an abstract idea does not transform into an inventive concept just because the prior art does not disclose or suggest it. *See Mayo*, 566 U.S. at 91.

“Groundbreaking, innovative, or even brilliant discovery does not by itself satisfy the § 101 inquiry.” *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 591 (2013). Indeed, “[t]he ‘novelty’ of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.” *Diamond v. Diehr*, 450 U.S. 175, 188–89 (1981); *see also Mayo*, 566 U.S. at 91 (rejecting “the Government’s invitation to substitute §§ 102, 103, and 112 inquiries for the better established inquiry under § 101”).

Thus, we are not persuaded the Examiner erred in the rejection of claim 1 under 35 U.S.C. § 101, and we sustain the Examiner’s rejection of claim 1, and of claims 2–17, which fall with claim 1.

Rejection II — Written Description — § 112(a)

The Examiner rejects claims 1–17 because the Specification does not reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention including “the information of the anonymous information being directly associated with the transaction card account behavior of only the customers of the financial institution.” Final Act. 9. The Examiner further rejects

claim 2 because the Specification does not reasonably convey receiving the “specific . . . [type of] anonymous information” of “anonymous customer transaction card account spend and balance behaviors of the customers of the financial institution with the plurality of financial institutions that issue transaction cards other than the financial institution” (*id.* at 9–10 (emphasis omitted)), and claim 3 because the Specification does not convey receiving the specific information of “revolving balances by annual percentage rate behaviors” (*id.* at 10)).

The Appellant contends that the claims do not recite that the information is directly associated with the behavior of only the customers of the institution. Br. 17. The Appellant further cites to paragraphs 29 through 39 of the Specification as support for receiving “the nature and source of the anonymous information that is employed” (*id.*), and contends that “the concept of anonymous data is clearly explained in the foregoing paragraphs, as well as throughout the Specification” (*id.* at 20).

Claims 1, 16, and 17 recite receiving “anonymous financial institution customer profile data consisting at least in part of anonymous transaction card account behavior information of customers of the financial institution with a plurality of financial institutions that issue transaction cards other than the financial institution” and developing models based in part on that information. Br. 27, 31 (Claims App.). Claims 2 and 3 further narrow the type of anonymous customer transaction card account behavior information. *Id.* at 28, 28.

The portions of the Specification relied on by the Appellant provide that the invention may “indirectly” provide knowledge of customers’ behavior with a financial institution’s competitors’ card. Spec. ¶ 29. The

invention may use “anonymous data received from an entity that analyzes customer profiles from card issuers for a significant percentage” (*id.*) and “anonymous customer profile data . . . from the entity” (*id.* ¶ 30). The invention then “may also employ statistical tools and estimators utilizing both the financial institution information and other card issuers’ information to derive variables.” *Id.* Use of the received anonymous profile data “may be used to develop and train models that may be deployed to estimate the behavior of the customers of the financial institution with other card issuers.” *Id.* By utilizing data available, such as internal data and data from credit bureaus, “the financial institution may complete a reasonable, but not a complete, picture of its customers.” *Id.* ¶ 31. The internal data may teach how an institution’s “customers spend using on-us cards and how and at what price points its customers revolve with on-us cards” and how “its customers react to different marketing efforts of the financial institution.” *Id.* ¶ 32. The credit bureau data may teach “what kinds of balances its customers hold with cards issued by other card issuers and how many lines of credit its customers have with other card issuers.” *Id.* The Specification acknowledges that neither the internal data nor the credit bureau data can teach how its customers are shopping using competitors’ cards. *Id.* ¶¶ 33, 34.

Although the Specification provides support such that one of ordinary skill in the art would understand the Appellant to have had possession of receiving anonymous card issuers’, i.e., competitive financial institutions’, customer profile data, the Specification does not provide details on what the profile data encompasses or comprises. It is not enough for the Specification to explain “the concept of anonymous data.” “The question is not whether a

claimed invention is an obvious variant of that which is disclosed in the specification. . . . It extends only to that which is disclosed.” *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997); *see also Rivera v. Int’l Trade Comm’n*, 857 F.3d 1315, 1322 (Fed. Cir. 2017) (“The knowledge of ordinary artisans may be used to inform what is actually in the specification, *see Lockwood*, 107 F.3d at 1571, but not to teach limitations that are not in the specification, even if those limitations would be rendered obvious by the disclosure in the specification”). As such, the Specification does not provide adequate written description to allow a person having ordinary skill in the art to recognize that the inventor had possession, at the time the application was filed, of the received anonymous profile data information consisting of anonymous transaction card account behavior information.

Thus, we sustain the rejection of the claims under 35 U.S.C. § 112(a).

Rejection III — Indefiniteness — § 112(b)

The Examiner rejects claims 1–17 because “it is unclear how the data [of transaction behavior information of customers] could be anonymous but also have an association specifically with a customer of the financial institution.” Final Act. 11.

The Appellant contends that “the bounds of the claims would clearly be understood by one skilled in the art when read in light of the Specification” because “the claims do not recite or even imply that the anonymous information has ‘an association specifically with a customer of the financial institution’ or is ‘directly linked to a customer profile’, which

on its face would not be possible since the anonymous data is not linked to a particular identified customer.” Br. 21.

The relevant portion of claims 1, 16, and 17 recites receiving “anonymous transaction card account behavior information of customers of the financial institution with a plurality of financial institutions that issue transaction cards other than the financial institution.” Br. 27, 31. Looking at the claims’ language, the anonymous information is “of customers of the financial information” and of behavior “with” competitor institutions. The Examiner interprets the “of customers” as being associated with the customers such that the information received relates to or is associated with the customers of the institution, and, thus, not anonymous. Conversely, the Appellant appears to interpret the “of customers” and being data of customers but not linked to a particular identified customer and, thus, anonymous. But, we note that the claims do not recite that the data are not linked to particular customers. And, we do not see how data regarding customers of an institution can be obtained without some identification of the customers. The Specification provides no details on how data received regarding customers of the institution is received anonymously or can remain anonymous. As such, we agree with the Examiner that one of ordinary skill in the art would not understand the claimed subject matter with a reasonable degree of clarity and particularity.

Thus, we sustain the rejection of the claims under 35 U.S.C. § 112(b).

Rejections IV and V— Obviousness — § 103(a)

The Appellant contends that the Examiner’s rejections under 35 U.S.C. § 103(a) are in error because the prior art:

separately or in combination with one another, fail to teach or suggest at least a FI processor that receives anonymous transaction card account behavior information of customers of the financial institution with a plurality of financial institutions that issue transaction cards other than the FI and that develops models based partly on that anonymous transaction card account behavior information and partly on non-anonymous FI customer account information and non-anonymous FI customer credit bureau data, according to Applicant[’s] claimed invention.

Br. 24.

Where claims do not particularly point out and distinctly claim the invention as required by the second paragraph of 35 U.S.C. § 112, a rejection of the claims must be reversed as impermissibly involving speculative assumptions as to the meaning of the claims. *See In re Steele*, 305 F.2d 859, 862–63 (CCPA 1962); *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970) (“If no reasonably definite meaning can be ascribed to certain terms in the claim, the subject matter does not become obvious—the claim becomes indefinite”). Here, the issues with respect to the rejections under 35 U.S.C. § 103(a), depend on the interpretation of the limitation of receiving anonymous transaction card account behavior of customers of the financial institution. In view of our determination that independent claims 1, 16, and 17 are indefinite based on this limitation, it follows that any analysis regarding those rejections would involve considerable speculation. Additionally, claims 2–15 depend from claim 1 and the prior art rejections of these claims fall for the same reason as claim 1. As such, we are unable to ascertain whether the prior art renders the claims obvious.

Therefore, the rejections under 35 U.S.C. § 103(a) of claims 1–17 are not sustained, *pro forma*. It should be understood, however, that our decision in this regard is *pro forma* and based solely on the indefiniteness of

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the claimed subject matter, and does not reflect on the adequacy of the prior art evidence applied in support of the rejection.

DECISION

The Examiner's rejection of claims 1–17 under 35 U.S.C. § 101 is AFFIRMED.

The Examiner's rejection of claims 1–17 under 35 U.S.C. § 112(a) is AFFIRMED.

The Examiner's rejection of claims 1–17 under 35 U.S.C. § 112(b) is AFFIRMED.

The Examiner's rejections of claims 1–17 under 35 U.S.C. § 103(a) are REVERSED.

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

AFFIRMED