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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MIKE FIELDS, ROBERT T. TREFZGER, RAMAKRISHNA DUVVURI, and TIM G. SANIDAS

Appeal 2019-001751
Application 15/134,983
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), Appellant[1] appeals from the Examiner's decision to reject claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] We use the word Appellant to refer to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as State Farm Mutual Automobile Insurance Company. Appeal Br. 2.

CLAIMED SUBJECT MATTER

The claims relate to "automatically providing customized pricing and product information based on limited personal data." Spec. 2. Claim 1, reproduced below, is representative of the subject matter on appeal.

> 1. A non-transitory tangible computer readable medium encoded with processor readable instructions to perform a method for providing quantitative product information based on a subset of prospective customer profile records, instructing the processor to perform:
>
> providing an interactive website interface from a server to a remote user interface device, comprising a display which allows a remote user to input a subset of prospective customer profile records;
>
> reading the input subset of prospective customer profile records from the interactive website interface;
>
> segmenting existing customer profile records with a segmentation model based at least in part on the input subset of prospective customer profile records, said segmenting comprising:
>
> building a dataset of existing customer profile records, wherein the database stores representative customer information comprising at least one statistic relating to: the dollar value of insurance premiums paid, coverages elected, limits elected, deductibles elected, and additional products owned;
>
> building a segmentation model based at least in part on the input subset of prospective customer profile records the segmentation model depending on insurance policy criteria selected from: an age of an insured, a sex of the insured, a type of property insured, details regarding the property insured a presence of alarms associated with the property insured, and a number of accidents, citations received by the insured, or claims filed by the insured within a specified timeframe;
>
> testing the segmentation model against at least a subset of existing customer profile records;
>
> measuring the accuracy of the segmentation model by comparing a premium paid by existing customers in a plurality

of segments against an expected value associated with each of the plurality of segments; and

validating the segmentation model;

running the segmentation model to identify a segment of existing customer profile records similar to the input subset of prospective customer profile records;

running a propensity model based on the segment identified by the segmentation model, wherein the propensity model determines the propensity of a prospective customer to defect from the prospective customer's current insurance policy, identifies product offerings and price information for products purchased by the identified segment of existing customer profile records, and tailors the product offerings and price information to encourage the prospective customer to defect from the prospective customer's current insurance policy;

providing to the interactive website interface a product menu display of the product offerings and price information to the remote user; and

providing to the interactive website interface a display which allows a remote user to input a complete set of prospective customer profile records.

REJECTION

Claims 1–20 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non–statutory subject matter.

OPINION

The Appellant argues claims 1–20 together as a group, based on language in claim 1. *See* Appeal Br. 5–9. We select claim 1 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

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. 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 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, 69 (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 (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 recently published revised guidance on the application of § 101. *See 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

The Examiner rejects claims 1–20 as directed to abstract ideas, specifically "[c]ollecting information, analyzing it, and displaying certain results of the collection and analysis (*Electr[]ic Power Group*)." Final Act. 3. The Examiner further finds the "additional limitations of the claim include a processor and the interactive website interfaces . . . perform nothing more than the computer functions of receiving, processing, and storing data, electronically scanning or extracting data from a physical document, automating mental tasks, and receiving or transmitting data over a network, e.g., using the Internet to gather data." Final Act. 4 (emphasis omitted).

Claim 1 recites "building a segmentation model based . . . on the input subset of prospective customer profile records . . . testing the segmentation

model . . . measuring the accuracy of the segmentation model by comparing a premium paid . . . against an expected value . . . validating the segmentation model[,] running the segmentation model to identify a segment of existing customer profile records similar to the input subset . . . [and] running a propensity model . . . [which] determines the propensity of a prospective customer to defect from the prospective customer's current insurance policy, identifies product offerings and price information for products purchased by the identified segment of existing customer profile records, and tailors the product offerings and price information to encourage the prospective customer to defect from the prospective customer's current insurance policy." Under Prong One of Revised Step 2A of the Guidance, this claim language is directed to certain methods of organizing human activity, in that it involves fundamental economic practices in the form of insurance and marketing or sales activities. Guidance, 84 Fed. Reg. at 52. The claim language is also directed to mental processes which involve observation, evaluation, judgment, and opinion, because a human can gather the data, compare it to other customer records, find patterns, and base recommendations and pricing on that analysis, which uses the mind to examine data. *Id.* We thus agree with the Examiner that the claims are directed to abstract ideas.

Prong Two

We next turn to Prong Two, and determine if the claims integrate the abstract idea into a practical application. Guidance, 84 Fed. Reg. at 54. Here, claim 1 recites steps that involve "providing an interactive website interface . . . which allows a remote user to input" data, and "reading the [data] from the website interface." These are data-gathering steps, which do

not receive weight during this analysis. Guidance, 84 Fed. Reg. at 55 n.31; *see also* MPEP § 2106.05(g). In addition, providing information to the interactive website interface for display, as recited in the last two limitations, is also insignificant extra-solution activity.

The method embodied on the claimed medium does not improve the underlying "server" recited as performing the limitations of claim 1, because any computer can be used to execute the claimed method. *See* Spec. 19:8 ("Computer 110 may be any type of general purpose or specialized computer system."). In addition, the method is directed to providing "customized pricing information," "customized product information," and "peer group insurance policy information" (Spec. 6–9), and as such the claimed method does not improve another technology, because it is directed to selling insurance coverage (Spec. 2). Guidance, 84 Fed. Reg. at55; *see also* MPEP § 2106.05(a). Because a particular computer is not required, the claim also does not define or rely on a "particular machine." *Id.*; *see also* MPEP § 2106.05(b). Further, the method does not transform matter. *Id.*; *see also* MPEP § 2106.05(c).

Instead, the claim stores data, builds, tests, measures the accuracy of, and validates a segmentation model, runs another model based on output from the segmentation model, and provides to a remote user the product offerings and prices identified by the second model via user interface on a website. As such, the method has no other meaningful limitations, and thus merely recites instructions to execute the abstract idea on a computer. *Id.*; *see also* MPEP § 2106.05(e), (f).

Therefore, we determine that claim 1 does not integrate the judicial exception into a practical application.

Step 2B

The only elements, beyond the abstract idea of gathering, analyzing, comparing, selecting, and presenting data about insurance coverages, are "an interactive website interface from a server to a remote user interface device" and "a processor to perform" the claimed steps. The server, however, is a general purpose computer (Spec. 19:8), and the website interface also "may include software and/or hardware for presenting information to a prospective customer or agent and accepting input in response" (*id.* at 19–20). The operations of receiving, storing, analyzing, and presenting 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). Thus, the only additional functional or structural elements, beyond the abstract idea, are well-understood, routine, and conventional. Guidance, 84 Fed. Reg. at 56; *see also* MPEP ¶ 2106.05(d).

Thus, claims 1–20 are directed to abstract ideas, and do not recite limitations that transform the abstract ideas into eligible subject matter, by integrating the abstract ideas into a practical application, or by reciting an inventive concept. We turn to and consider Appellant's arguments.

Appellant's Arguments

We are unpersuaded that "the claims of the present application are directed to an improvement in the functioning of computers, particularly those with an interactive website interface for providing quantitative product information based on a subset of prospective customer profile records," based on *Trading Technologies International, Inc. v. CQG, Inc.*, 675 Fed. Appx. 1001, 1004 (Fed. Cir. 2017). Appeal Br. 7. The claims gather, store, analyze, and present information from the analysis, using standard

computing techniques, and display the information using a commonly-employed "web interface" to a remote computer. These actions do not improve the functioning of computers, as they do not affect the manner in which computers operate by virtue of executing the claimed model-based steps.

We are unpersuaded that the claims represent eligible subject matter based on the argument that "the segmentation model is an inventive concept." *Id.* 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., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1168 (Fed. Cir. 2018).

The Appellant next argues, citing *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356, 1362 (Fed. Cir. 2018):

> Just as in the *Core Wireless* case, where users being able to more quickly navigate on small screens is an improvement in the functioning of computers, users being able to more efficiently and accurately obtain quantitative product information using an interactive website interface is an improvement in the functioning of computers.

Appeal Br. 9.

We are not persuaded by the Appellant's argument, because the claimed method embodied on the medium merely displays product information to a customer, which does not alter or improve the manner in which the user interface operates to display the information, since essentially any user interface, such as a web interface, can be used. *See* Spec. 19–20. We discern no discussion in the Specification that improves the operation of a computer or user interface to display information to a user. Instead, the

computer is used to gather, analyze, and select information to present, based on abstract models, and the user interface is merely used in a generic manner to display the selected information. The Federal Circuit holds that claims broadly covering data collection, communication, and processing are directed to abstract ideas. *See, e.g.*, *Univ. of Fla. Research Found., Inc. v. Gen. Elec. Co.*, 916 F.3d 1363, 1366–68 (Fed. Cir. 2019); *SAP Am., Inc. v. InvestPic LLC*, 898 F.3d 1161, 1164–67 (Fed. Cir. 2018); *Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 907–08, 910–11 (Fed. Cir. 2017); *Credit Acceptance Corp. v. Westlake Services*, 859 F.3d 1044, 1055 (Fed. Cir. 2017); *RecogniCorp, LLC v. Nintendo Co. Ltd.*, 855 F.3d 1322, 1326–27 (Fed. Cir. 2017); *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1339–41 (Fed. Cir. 2017). As the Federal Circuit has explained, "[a] process that start[s] with data, add[s] an algorithm, and end[s] with a new form of data [is] directed to an abstract idea." *RecogniCorp*, 855 F.3d at 1327.

As to the data operated upon, in this case "customer profile records," "customer information," "at least one statistic relating to: the dollar value of insurance premiums paid, coverages elected, limits elected, deductibles elected, and additional products owned," "insurance policy criteria selected from: an age of an insured, a sex of the insured, a type of property insured, details regarding the property insured a presence of alarms associated with the property insured, and a number of accidents, citations received by the insured, or claims filed by the insured within a specified timeframe," "a premium paid by existing customers in a plurality of segments against an expected value associated with each of the plurality of segments," and "product offerings and price information," "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*, 890 F.3d 1016, 1022 (Fed. Cir. 2018).

The Appellant has not established error in the rejection of claims 1–20, as directed to ineligible subject matter in the form of abstract ideas, without something more to transform the abstract ideas into eligible subject matter. For this reason, we sustain the rejection of claims 1–20 under 35 U.S.C. § 101.

CONCLUSION

The Examiner's rejection is AFFIRMED.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–20	101	Eligibility	1–20	

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