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# UNITED STATES PATENT AND TRADEMARK OFFICE

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# BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* JEFFREY WOLFE, SUSHANT LIKHATE,
JONATHAN LIPKIN, and MEGAN EDDS

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Appeal 2020-002252
Application 16/119,046
Technology Center 3600

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Before JOSEPH A. FISCHETTI, BRUCE T. WIEDER, and
AMEE A. SHAH, *Administrative Patent Judges*.

WIEDER, *Administrative Patent Judge*.


## DECISION ON APPEAL

Appellant[1] seeks review under 35 U.S.C. § 134 from the Examiner's
final rejection of 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 Capital
One Services, LLC (Appeal Br. 3.)

CLAIMED SUBJECT MATTER

Appellant's invention relates to debt resolution planning including an accelerated charge off plan. (Spec. ¶ 2.)

Claims 1, 9, and 16 are the independent claims on appeal. Claim 1 is illustrative. It recites:

1. A method, comprising:
receiving, by a device, a request for information regarding a debt resolution plan available for a delinquent account,
wherein the request includes:
a first input indicating a payment amount,
a second input indicating a payment frequency, and
a third input indicating a payment start date;
obtaining, by the device, account data associated with the delinquent account;
determining, by the device and using a machine learning model, a score for the delinquent account based on the first input, the second input, the third input, and the account data,
the machine learning model being trained to receive the first input the second input, the third input, and the account data and produce, as output, the score, and
wherein the score predicts a likelihood that a creditor associated with the delinquent account will charge off the delinquent account within a predetermined time period;
determining, by the device, a plurality of plan parameters for an accelerated charge off plan when the score satisfies a threshold,
the accelerated charge off plan specifying a charge off time, prior to an end of the predetermined time period, at which the delinquent account will be proactively charged off, and
wherein the plurality of plan parameters include:
a first parameter indicating a repayment amount,
a second parameter indicating a repayment frequency, and

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           a third parameter indicating a repayment start date;

     transmitting, by the device, the plurality of plan parameters associated with the accelerated charge off plan;

     receiving, by the device, an enrollment request based on transmitting the plurality of plan parameters;

     enrolling, by the device, the delinquent account in the accelerated charge off plan based on receiving the enrollment request; and

     performing, by the device, one or more actions based on enrolling the delinquent account in the accelerated charge off plan.

## REJECTION

Claims 1–20 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

## ANALYSIS

Appellant does not separately argue the claims. We select claim 1 as representative. Claims 2–20 will stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

"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." 35 U.S.C. § 101. Section 101, however, "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*, 573 U.S. 208, 216 (2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

*Alice* applies a two-step framework, earlier set out in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (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*, 573 U.S. at 217.

Under the two-step framework, it must first be determined if "the claims at issue are directed to a patent-ineligible concept." *Id.* at 218. If the claims are determined to be directed to a patent-ineligible concept, e.g., an abstract idea, then the second step of the framework is applied to determine if "the elements of the claim . . . contain[] an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Id.* at 221 (internal quotation marks omitted) (citing *Mayo*, 566 U.S. at 72–73, 79).

With regard to step one of the *Alice* framework, we apply a "directed to" two-prong test to: 1) evaluate whether the claim recites a judicial exception, and 2) if the claim recites a judicial exception, evaluate whether the claim "appl[ies], rel[ies] on, or use[s] the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception." *See* USPTO, 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50, 54 (Jan. 7, 2019) (hereinafter "2019 Guidance").

Here, the Examiner determines that claim 1 "recites a fundamental economic practice [(]of []mitigating transaction risk), specifically providing a debt resolution plan to a user who has a delinquent account." (Final Action 13.) Thus, the Examiner determines that claim 1 recites an abstract idea in the "category of 'Certain methods of Organizing Human Activity.'" (*Id.* at 3.)

Appellant argues that "representative claim 1 recites a variety of non-fundamental features designed to apply machine learning model [sic] to

determine plan parameters for an accelerated charge off plan." (Appeal Br. 11.) In particular, Appellant argues that "claim 1 specifically recites features indicating the manner in which a particular machine learning model is used to enable representative claim 1 to perform a variety of actions, including enrolling in an accelerated charge off plan." (*Id.* at 14.)

Under step one of the *Alice* framework, we "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 of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016).

> The "directed to" inquiry . . . cannot simply ask whether the claims *involve* a patent-ineligible concept, because essentially every routinely patent-eligible claim involving physical products and actions *involves* a law of nature and/or natural phenomenon . . . . Rather, the "directed to" inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether "their character as a whole is directed to excluded subject matter." *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

*Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016). In other words, the first step of the *Alice* framework "asks whether the focus of the claims is on the specific asserted improvement in [the relevant technology] or, instead, on a process that qualifies as an 'abstract idea' for which computers are invoked merely as a tool." *Id.* at 1335–36; *see also* 2019 Guidance at 54–55.

The Specification provides evidence as to what the claimed invention is directed. In this case, the Specification discloses that the invention relates to debt resolution planning including an accelerated charge off plan. (Spec. ¶ 2.) Claim 1 provides further evidence. Claim 1 recites "receiving . . . a

request for information regarding a debt resolution plan available for a delinquent account," "obtaining . . . account data," "determining . . . using a machine learning model, a score for the delinquent account," "determining . . . a plurality of plan parameters for an accelerated charge off plan when the score satisfies a threshold," "transmitting . . . the plurality of plan parameters," "receiving . . . an enrollment request," "enrolling . . . the delinquent account," "and performing . . . one or more actions based on enrolling the delinquent account."

In short, the intrinsic evidence shows that claim 1 recites receiving data, obtaining data, analyzing data (determining an account score using a machine learning model), transmitting data, receiving data (the enrollment request), and processing data (enrolling the account and performing unspecified one or more actions). Receiving data, analyzing data, transmitting data, and processing data have been determined to be directed to an abstract idea. *See, e.g.*, *Content Extraction and Transmission LLC v. Well Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (treating as an abstract idea "1) collecting data, 2) recognizing certain data within the collected data set, and 3) storing that recognized data"). Claim 1 does not recite *how* the device receives data, *how* the device obtains data, *how* the device transmits data, or *how* the device processes data. For each of these steps, claim 1 merely recites functional results to be achieved by any means.

With regard to the determining step, i.e., "determining, by the device and using a machine learning model, a score for the delinquent account based on the first input, the second input, the third input, and the account data," Appellant argues that "claim 1 specifically recites features indicating

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the manner in which a particular machine learning model is used to enable representative claim 1 to perform a variety of actions, including enrolling in an accelerated charge off plan." (Appeal Br. 14.) We disagree.

Claim 1 recites the use of "a machine learning model" at only a high level of generality. The claim does not recite *how* the machine learning model achieves the goal of determining the score. The claim merely recites the idea of using a machine learning model to determine a score while providing no detail, beyond a list of input data to be considered in some unspecified way. The claim does not recite how the learning model achieves the stated result, or even what type of learning model is used.

In other words, the steps of claim 1 do not recite technological implementation details for any of the steps. Nor does claim 1 recite "a particular way of programming or designing the software . . . , but instead merely claim[s] the resulting system." *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1241 (Fed. Cir. 2016).

In cases involving software innovations, such as we have here, the inquiry as to whether the claims are directed to an abstract idea "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). Here, the device and learning machine model are invoked merely as tools. The asserted improvement is to the data provided, i.e., the score and the plan parameters for the accelerated charge off plan.

In view of the above, we determine that claim 1 sets forth a method for debt resolution by determining plan parameters for an accelerated charge off plan. Such debt resolution includes forms of mitigating risk and commercial or legal interaction. Under the 2019 Guidance, "fundamental economic principles or practices (including hedging, insurance, mitigating risk)" and "commercial or legal interactions (including agreements in the form of contracts; legal obligations . . . )" are identified as certain methods of organizing human activity, and thus, an abstract idea. (2019 Guidance at 52.) This is in accord with the Examiner's determination.[2] (*See* Final Action 12.)

Nonetheless, Appellant argues that claim 1 does not recite the abstract idea of a fundamental economic practice "at least because representative claim 1 recites a variety of non-fundamental features designed to apply machine learning model [sic] to determine plan parameters for an accelerated charge off plan." (Appeal Br. 11.) Specifically, Appellant points to the claim steps of determining a score, determining plan parameters, transmitting the parameters, receiving an enrollment request, enrolling the account, and performing one or more unspecified actions. (*Id.* at 11–12.) We do not find this argument persuasive.

As discussed above, determining values, transmitting data, receiving data, and performing actions based on data, have all been determined to be

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[2] Although we and the Examiner describe, at different levels of abstraction, to what the claims are directed, it is recognized that "[a]n abstract idea can generally be described at different levels of abstraction." *Apple, Inc.*, 842 F.3d at 1240. That need not and, in this case does not, "impact the patentability analysis." *Id.* at 1241.

directed to an abstract idea. To the extent Appellant is arguing that the claim does not recite a fundamental economic practice because there is an improvement to the information itself, we do not find the argument persuasive. *See, e.g.*, *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1288 (Fed. Cir. 2018) ("[A[n] improvement to the information stored by a database is not equivalent to an improvement in the database's functionality."). And "[a]s many cases make clear, 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). The "character of [the] information simply invokes a separate category of abstract ideas." *Id.* In other words, Appellant's asserted improvement "lies entirely in the realm of abstract ideas, with no plausibly alleged innovation in the non-abstract application realm." *Id.* at 1163.

Moreover, we do not see how the recitation of a generic "device" and generic "machine learning model," even in conjunction with the recited functions, "ensure[s] 'that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].'" *See Alice*, 573 U.S. at 221 (second and third brackets in original) (quoting *Mayo*, 566 U.S. at 77.)

Nor do we find any indication in the Specification that the claimed invention effects a transformation or reduction of a particular article to a different state or thing. Nor do we find anything of record that attributes an improvement in computer technology or functionality to the claimed invention or that otherwise indicates that the claimed invention "appl[ies], rel[ies] on, or use[s] the judicial exception in a manner that imposes a

meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception." (*See* 2019 Guidance at 54–55.)

Regardless, Appellant argues "that the claims reflect an improvement in the functioning of a computer, or an improvement to other technology or technical field." (Appeal Br. 18.) Specifically, Appellant argues that the claims provide such an improvement because

> automating the process for implementing intelligent debt resolution planning conserves computing resources (e.g., processor resources, memory resources, and/or the like) that would otherwise be wasted in attempting to negotiate and enroll a user in a debt management plan that may ultimately fail, due to a lack of intelligence, insight, and/or the like.

(*Id.* (quoting Spec. ¶ 15) (emphasis omitted).) We do not find this argument persuasive.

As we understand Appellant's argument, the asserted savings in computer resources is the result of providing a plan for dealing with a delinquent account by applying particular rules, and, e.g., not providing for negotiation. Appellant does not persuasively argue why the method of claim 1 saves computer resources over, e.g., dealing with a delinquent account by presenting a plan, following particular rules, and not providing for negotiation.

Thus, under prong one of the two prong test in the 2019 Guidance, claim 1 recites an abstract idea; and, under prong two, additional elements in claim 1 do not "apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception."

(*See* 2019 Guidance at 54.) As such, under step one of the *Alice* framework, the claim is directed to an abstract idea, and we move to step two.

Step two of the *Alice* framework has been described "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.'" *Alice*, 573 U.S. at 217–18 (brackets in original) (quoting *Mayo*, 566 U.S. at 72–73). Under step two, we examine, *inter alia*, whether a claim element or combination of elements "[a]dds a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present." (2019 Guidance at 56.)

In our analysis under step two of the *Alice* framework, here we examine "[t]he question of whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field [which] is a question of fact." *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018).

Appellant argues that "[n]o evidence is presented, nor is it even alleged, that the claims recite features that are well-understood, routine, and conventional in the field." (Appeal Br. 21.)

The Examiner finds that "[t]he computer hardware is recited at a high-level of generality . . . such that it amounts no more than mere instructions to apply the exception using a generic computer component." (Final Action 13.)

Taking the claim elements separately, the functions performed in claim 1 by the generic device are purely routine and conventional. (*See,*

*e.g.*, Spec. ¶ 68.) Receiving data, analyzing data, transmitting data, and processing data are routine and conventional computer functions and were previously known to the industry. *See Elec. Power Grp.*, 830 F.3d at 1356 (The claims "do not include any requirement for performing the claimed functions of gathering, analyzing, and displaying in real time by use of anything but entirely conventional, generic technology. The claims therefore do not state an arguably inventive concept."); *see also 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,' . . . those functions can be achieved by any general purpose computer without special programming."). That the device is recited as "using a machine learning model" does not change our analysis. As discussed above, claim 1 does not recite how the learning model operates to achieve the stated result or even the type of learning model used.

Considered as an ordered combination, the generic device of Appellant's claimed invention adds nothing that is not already present when the limitations are considered separately. For example, claim 1 does not, as discussed above, purport to improve the functioning of the device itself. Nor does it effect an improvement in any other technology or technical field. Instead, claim 1 amounts to nothing significantly more than an instruction to apply the abstract idea using a generic device performing routine computer functions. That is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 573 U.S. at 225–26.

CONCLUSION

The Examiner's rejection of claims 1–20 under 35 U.S.C. § 101 is affirmed.

Specifically:

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

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