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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte VICTOR NOVIKOV,
ADITYA AGRAWAL,
KENT SCHOEN, and
JARED MORGENSTERN

Appeal 2017-005676
Application 13/620,318[1]
Technology Center 3600

Before HUBERT C. LORIN, NINA L. MEDLOCK, and
BART A. GERSTENBLITH, Administrative Patent Judges.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Victor Novikov et al. (Appellants) seek our review under 35 U.S.C. § 134(a) of the Final Rejection of claims 17–34. We have jurisdiction under 35 U.S.C. § 6(b).

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[1] The Appellants identify Citicorp Credit Services, Inc. as the real party in interest. App. Br. 1.

SUMMARY OF DECISION

We AFFIRM.

THE INVENTION

Claim 17, reproduced below, is illustrative of the subject matter on appeal.

> 17. A computer-implemented method for one or more computing devices to calculate the price of a corporate loan using data inputs received from a first device, the method comprising:
>
> generating, by a server, in a database a record of a corporate loan, the record comprising data containing an initial credit state of the corporate loan, the database comprising non-transitory machine-readable storage media storing one or more records of one or more corporate loans;
>
> responsive to the server receiving from a first device a first data input containing a transition matrix of historical credit migrations :
>
> converting, by the server, the first data input containing the transition matrix received from the first device to a second data input containing a risk neutral matrix, based upon market data received from one or more servers;
>
> creating, by the server, a third data input containing a company-specific transition matrix using company-specific market data received from the one or more servers and the market data received from the one or more servers;
>
> calculating, by the server, the price of the corporate loan, based upon the first data input, the second data input, the third data input, and the initial state indicated by the record of the corporate loan stored in the database; and
>
> transmitting, by the server, the price of the corporate loan to at least one of a transaction server and a second device associated with a user.

THE REJECTION

The following rejection is before us for review:

Claims 17–34 are rejected under 35 U.S.C. § 101 as being directed to judicially-excepted subject matter.

ISSUE

Did the Examiner err in rejecting claims 17–34 under 35 U.S.C. §101 as being directed to judicially-excepted subject matter?

ANALYSIS

The rejection of claims 17–34 under 35 U.S.C. §101 as being directed to judicially-excepted subject matter.

The Appellants argued these claims as a group. *See* App. Br. 4–9. We select claim 17 as the representative claim for this group, and the remaining claims 18–34 stand or fall with claim 17. 37 C.F.R. § 41.37(c)(1)(iv).

Alice Corp. Proprietary Ltd. v. CLS Bank International, 134 S. Ct. 2347 (2014), identifies a two-step framework for determining whether claimed subject matter is judicially-excepted from patent-eligibility under 35 U.S.C. § 101.

According to *Alice* step one, "[w]e must first determine whether the claims at issue are directed to a patent-ineligible concept," such as an abstract idea. *Alice*, 134 S. Ct. at 2355.

In that regard, the Examiner repeated what claim 17 recites and then stated:

> Applicant is to be noted that the steps or functions of generating and receiving are similar to concepts that have been identified as abstracts by the courts as found in Classen [*Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057 (Fed. Cir. 2011)] and Perkin-Elmer [*PerkinElmer Inc. v. Intema Ltd.*, 496 Fed. Appx. 65 (Fed. Cir. 2012) (nonprecedential)] which involved functions of collecting and comparing data to determine a risk level. The function of communicating or transmitting data or information was also found to be abstract by courts in Cyberfone [*Cyberfone Sys., LLC v. CNN Interactive Grp., Inc.*, 558 F. Appx 988 (Fed. Cir. 2014) (nonprecedential)]. The calculating function is a mathematical function which the courts found to be abstract as was found in Freddie Mac [*Federal Home Loan Mortg. Corp. v. Graff/Ross Holdings, LLP*, 604 F. Appx 930 (Mem) (Fed. Cir. 2015)] which involved computing a price for the sale of a fixed income asset and generating a financial analysis output.

Non-Final Rej. 4. In effect, the Examiner characterized claim 17 as being directed to a combination of steps, each of which are abstract ideas in accord with earlier court decisions. *See Amdocs (Israel) Limited v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016) ("[T]he decisional mechanism courts now apply [to help answer that question] 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."). We understand the Examiner's position as finding that combining abstract ideas did not render the combination any less abstract. *Cf. Shortridge v. Found. Construction Payroll Serv., LLC*, 2015 WL 1739256 (N.D. Cal. 2015), *aff'd*, 655 F. Appx 848 (Fed. Cir. 2016).

The Appeal Brief addresses each of the decisions the Examiner relied upon, pointing to differences between them and the corresponding claim

steps for which they were cited and argues that the analogies are inapt. *See* App. Br. 4–6.

Claim 17 presents a method "to calculate the price of a corporate loan." The steps to accomplish said calculating involve a "server" (1) "generating . . . in a database" information A; and, responsive to receiving information B, (2) "converting" information B to information C; (3) "creating" information D; (4) "calculating" information E; and (5) "transmitting" information E; where

- A = "a record of a corporate loan, the record comprising data containing an initial credit state of the corporate loan";
- B = "a transition matrix of historical credit migrations";
- C = "a risk neutral matrix, based upon market data received from one or more servers";
- D = "a company-specific transition matrix using company-specific market data received from the one or more servers and the market data received from the one or more servers"; and
- E = "the price of the corporate loan" based on B, C, and D indicated on A.

The five recited steps "to calculate the price of a corporate loan" do not appear to do anything more than take different types of information and process them in a general way, albeit the different types of information are selected so that the price of a corporate loan can be calculated. All that the claim recites pertaining to processing is that the information be "generat[ed]," "convert[ed]," "creat[ed]," "calculat[ed", and "transmitt[ed]." A combination of general information-processing steps such as these, without any detail on *how* to perform them, supports the Examiner's position that claim 17 is directed to an abstract idea. *Cf. Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1343 (Fed. Cir. 2016) (When "the focus of the

asserted claims" is "on collecting information, analyzing it, and displaying certain results of the collection and analysis," the claims are directed to an abstract idea.).

The Appellants make various statements on the theme that the claimed subject matter is rooted in computer technology rather than an abstract idea. *E.g.*, App. Br. 6 ("Instead, the claims are rooted in the features of large-scale, interconnected computing systems.").

There can be no dispute that "servers" are known and are known to process information so that it is "generat[ed]," "convert[ed]," "creat[ed]," "calculat[ed]," and/or "transmitt[ed]." *See, e.g.*, Spec. ¶ 214 ("The above-described technology can be implemented on known devices such as a personal computer . . . ."). Claim 17 focuses not on any server but on the generating, converting, creating, calculating, and transmitting steps. The steps themselves are not rooted in computer technology as evidenced by the fact that all that is needed to perform them is a generic "server."

The difficulty here is that the claim has been drafted so that as a whole it provides a result-oriented solution ("generating," "converting," "creating," "calculating," and "transmitting") but without the computer-centric details for accomplishing it. The Appellants suggest many such details via arguments in support of the invention being "rooted in computer technology." *See* App. Br. 7–8. But the claim does not now reflect those details. *Cf. Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1342 (Fed. Cir. 2017) (explaining that "[o]ur law demands more" than claim language that "provides only a result-oriented solution, with insufficient detail for how a computer accomplishes it") and *Elec. Power*

Grp., 830 F.3d at 1354 (explaining that claims are directed to an abstract idea where they do not recite "any particular assertedly inventive technology for performing [conventional] functions").

Step two is "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*, 134 S. Ct. at 2355 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 73 (2012)).

In that regard, the Examiner determined that

> [t]he claim does not include additional elements that are sufficient to amount to significantly more than the judicial exception because :
>
> The additional elements when considered both individually and as a combination do not amount to significantly more than the abstract idea. The claim recites the additional elements of a server, a database a device. These devices or computer components are noted to perform routine computer functions such as receiving data, generating data (similar to a comparison function) and transmitting data.
>
> These computers or computer components are seen as generic computers performing generic functions without an inventive concept as such do not amount to significantly more than the abstract idea. These computers or computer components are simply a field of use that attempt to limit the abstract idea to a particular environment. The type of data being manipulated does not impose meaningful limitations or render the idea less abstract. Looking at the elements as a combination does not add anything more than the elements analyzed individually. Therefore the claim does not amount to significantly more than the abstract idea itself.

Non-Final Rej. 4–5.

With respect to the step two determination, the Appellants again make various statements on the theme that the claimed subject matter describes a technical improvement to a computer-centric problem so as to render the claimed subject matter as a whole significantly more than being an abstract idea. The following statement is representative:

> Claims 17–34 recite a data analytics system capable of analyzing pricing data from a variety of disparate data sources, generating data one format, and then converting the received data and the generate data into an altogether new format, which the system then uses as its own feedback loop into a database of corporate loans and into a transaction server, and which the system provides to an end user's computer.

App. Br. 7.

But claim 17 makes no mention of analyzing data from a variety of disparate data sources or of a data analytics system that formats data into a new format that is then used as its own feedback loop into a database and into a transaction server. Such statements are not commensurate in scope with what is claimed and therefore cannot be persuasive as to error in the step two determination.

We have considered all of the Appellants' remaining arguments (including those made in the Reply Brief) and find them unpersuasive. Accordingly, because we are not persuaded as to error in the determinations that representative claim 17, and claims 18–34 that stand or fall with claim 17, are directed to an abstract idea and do not present an "inventive concept," we sustain the Examiner's conclusion that they are directed to patent-ineligible subject matter for being judicially-excepted from 35 U.S.C. § 101. *Cf. LendingTree, LLC v. Zillow, Inc.*, 656 Fed. Appx. 991, 997 (Fed. Cir. 2016) ("We have considered all of LendingTree's remaining arguments

and have found them unpersuasive. Accordingly, because the asserted claims of the patents in suit are directed to an abstract idea and do not present an "inventive concept," we hold that they are directed to ineligible subject matter under 35 U.S.C. § 101."); *see also, e.g.*, *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1364 (Fed. Cir. 2015); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1098 (Fed. Cir. 2016).

DECISION

The decision of the Examiner to reject claims 17–34 is affirmed.

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