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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KEVIN MALVEY, GEORGE S. CAREY,
MOLLY OXFORD, FANI DAVIDSON, and ANTHONY KELL

Appeal 2016-007424
Application 13/874,214¹
Technology Center 3600

Before JOSEPH A. FISCHETTI, KENNETH G. SCHOPFER, and
ALYSSA A. FINAMORE, *Administrative Patent Judges*.

FISCHETTI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants seek our review under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1, 3, 4, 6–8, 10, 11, 13–15, 17, 18, 20, and 21. We have jurisdiction under 35 U.S.C. § 6(b).

SUMMARY OF DECISION

We AFFIRM.

¹ Appellants identify Bank of America Corporation as the real party in interest. (Appeal Br. 2.)

THE INVENTION

Appellants claims “relate[] generally to a tool for enhancing competency of foreign regulations.” (Spec. 1.)

Claim 1 reproduced below, is representative of the subject matter on appeal.

1. An apparatus, comprising:

a memory operable to store information about a competitor product selected to fund a first loan in a foreign country, the information comprising: a currency of the first loan, an interest rate of the first loan, a currency exchange rate of the first loan, and a comment about the interest rate of the first loan;

a network interface operable to receive a request for a second loan; and

a processor communicatively coupled to the memory and to the network interface and operable to:

determine that the second loan is requested to occur in the foreign country;

determine an expected profit of the second loan based at least in part upon the currency exchange rate of the first loan;

change the interest rate of the first loan based on the comment about the interest rate of the first loan to form a first product;

wherein the network interface is further operable to:

communicate, in response to the processor determining that the second loan is requested to occur in the foreign country, a message indicating:

that the first product should be offered to fund the second loan; and

the expected profit of the second loan; and

communicate a second message indicating that, based on the currency of the first loan and the foreign country in which

the second loan is requested to occur, a second product is selectable for servicing the second loan.

THE REJECTION

The Examiner relies upon the following as evidence of unpatentability:

Basin et al.	US 2006/0248003 A1	Nov. 2, 2006
Gonen et al.	US 2012/0239553 A1	Sept. 20, 2012

The following rejections are before us for review:

Claims 1, 3, 4, 6–8, 10, 11, 13–15, 17, 18, 20, and 21 are rejected under 35 U.S.C. § 101 because the claimed invention is not directed to patent-eligible subject matter.

Claims 1, 3, 4, 6–8, 10, 11, 13–15, 17, 18, 20, and 21 are rejected under 35 U.S.C. § 103 as being unpatentable over Basin in view of Gonen.

FINDINGS OF FACT

1. The Examiner found:

Therefore, the claims as a whole, do not amount to significantly more than the abstract idea itself. This is because the claims do not affect an improvement to another technology or technical field; the claims do not change the nature of the computer itself or the technology; the claims do not amount to an improvement to the functioning of a computer itself; and the claims do not move beyond a general link of the use of an abstract idea to a particular technological environment. The claims merely amount to the application or instructions to apply the abstract idea (i.e. **determining an offer for a loan**) using a generic

computer, and is considered to amount to nothing more than requiring a computer workstation and a generic **memory, network interface, and processor** to merely carry out the abstract idea itself. As such, the claims, when considered as a whole, are nothing more than the instruction to implement the abstract idea (i.e. **determining an offer for a loan**) in a particular, albeit well-understood, routine and conventional technological environment.

(Final Act. 3).

ANALYSIS

35 U.S.C. § 103 REJECTION

We will reverse the rejection of claims 1, 3, 4, 6–8, 10, 11, 13–15, 17, 18, 20, and 21 under 35 U.S.C. § 103.

Each of independent claims 1, 8, and 15 recites, in pertinent part, the steps of,

a network interface operable to receive a request for a second loan;...

determine an expected profit of the second loan based at least in part upon the currency exchange rate of the first loan;

change the interest rate of the first loan based on the comment about the interest rate of the first loan to form a first product[.]

Appellants argue,

the proposed *Basin-Gonen* combination does not even disclose, teach, or suggest each and every element of the claims. First, the Examiner alleges that ¶ [0051] and Figure 1 of *Basin* disclose “a network interface operable to receive a request for a second loan,” but *Basin* does not disclose, teach, or suggest this element. Office Action, p. 6. *Basin* merely discloses presenting pricing information for a single requested loan. *See*

Basin, ¶ [0051]. No second loan is disclosed. The claims here recite both a first loan and a second loan. Furthermore, the claims recite “determine an expected profit of the second loan based at least in part upon the currency exchange rate of the first loan.” Therefore, *Basin’s* disclosure of a single loan cannot disclose both a first loan and a second loan, let alone determining an expected profit of the second loan based on the first loan.

(Appeal Br. 5.)

The Examiner, however, found “**“a network interface operable to receive a request for a second loan; and’** [is disclosed by Basin at] (‘multiple lender . . . underwriting systems . . . Internet 14’ See at least paragraph 0051, Figure 1 element 14: claim 1).” (Final Act. 6).

Additionally, in the Answer the Examiner supplements this finding, stating:

The network interface is operable to receive a second loan as Basin teaches, “multiple lender . . . underwriting systems . . . Internet 14” See at least paragraph 0051. In addition, by teaching, Figure 1 element 14 as well as claim 1. In addition, by teaching, in Figure 2 “subordinate financing” element 34 which shows for example second position on a house versus a first position. This can be a down payment used to buy a house for example. The second loan or subordinate financing implies that the debt ranks behind the first secured lender, and means that the secured lenders will be paid back before subordinate debt holders. This definition can be found from Investopedia’s website as well as others as it is well-known. In addition, by teaching, in Figure 6 multiple lenders with multiple loans. In addition, by teaching, “numerous mortgage loan quotations” See at least paragraph 0065. Finally, Figure 3 shows that the user enters the loan scenarios in element 22 then the system requests multiple loans.

(Answer 7.)

We agree with Appellants. While Basin does disclose offering plural loans, nowhere is it disclosed that information from each loan’s process

results in “determin[ing] an expected profit of the second loan based at least in part upon the currency exchange rate of the first loan; change the interest rate of the first loan based on the comment about the interest rate of the first loan to form a first product,” as claimed. The Examiner finds that Basin at paragraphs 51 and 65 discloses a request for a second loan. (Final Act. 6, Answer 7.) Paragraph 65 of Basin discloses “the entry screen 24 includes various different parameters that are entered by the mortgage professional relating to the particular situation facing the borrower.” Paragraph 51 of Basin only discloses “loan pricing information based upon selectable loan parameters, such as the mortgage rate, broker rebate points, or other parameters that are valuable to the individual mortgage professional.” The Examiner relies on Basin at paragraphs 11 and 32 for the “determining” part of the limitation listed above. (Final Act. 6). But, paragraph 11 only discloses the general idea of profit by collecting interest on money, and paragraph 32 only discloses the existence of conforming or nonconforming loans. It is not apparent, and the Examiner does not explain, how one of ordinary skill in the art would have known these limitations are disclosed by Basin based on these generalized disclosures in Basin. Even taking the Examiner’s proposal of “subordinate financing,” it is unclear how cooperation between loans competing for the same securitization result in a more profitable secondary loan based on the parameters of the underlying first loan.

Because claims 3, 4, 6, 7, 10, 11, 13, 14, 17, 18, 20, and 21 depend from one of claims 1, 8, and 15 and because we cannot sustain the rejection of the base claims, the rejection of dependent claims, likewise, cannot be sustained.

35 U.S.C. § 101 REJECTION

We will sustain the rejection of claims 1, 3, 4, 6–8, 10, 11, 13–15, 17, 18, 20, and 21 under 35 U.S.C. § 101.

The Supreme Court

set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, . . . determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so, we then ask, “[w]hat else is there in the claims before us?” To answer that question, . . . consider the elements of each claim both individually and “as an ordered combination” to determine whether the additional elements “transform the nature of the claim” into a patent-eligible application. [The Court] described step two of this analysis 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 Corp. Pty. Ltd. v. CLS Bank Int’l, 134 S. Ct. 2347, 2355 (2014) (citations omitted) (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72–73 (2012)).

To perform this test, we must first determine whether the claims at issue are directed to a patent-ineligible concept.

Although the Court in *Alice* made a direct finding as to what the claims were directed to, we find that this case’s claims themselves and the Specification provide enough information to inform one as to what they are directed to.

The steps in claim 1 result in: “communicate a second message indicating that, based on the currency of the first loan and the foreign

country in which the second loan is requested to occur, a second product is selectable for servicing the second loan.”

The Specification further states,

store information pertaining to previous loans in country B of the previous example. When the company indicates that it wants to apply for a loan from country A to country B, the system may predict the exchange rate of the loan based on the exchange rates of the previous loans in country B. For example, the system may determine that the exchange rates of loans in country B has been increasing the past few months and determine, in response, that the exchange rate for the company’s loan will be higher than the average exchange rate of the previous month. The system may also use current rates from public sites, such as Reuters or Bloomberg, to predict the information. In this manner, the company would not be required to apply for the loan before receiving estimates on important information. Rather, the system may predict this information for the company prior to the company applying for the loan thus reducing network traffic associated with loan applications.

(Spec. 7.)

Thus, all this evidence shows that claim 1 is directed to determining expected profit of a second loan based on the currency exchange rate and interest commentary associated with a first loan each made in a foreign country. It follows from prior Supreme Court cases, and *Gottschalk v. Benson*, 409 U.S. 63 (1972) in particular, that the claims at issue here are directed to an abstract idea. Determining expected profit of a loan based on the currency exchange rate and interest commentary is a fundamental economic practice of a transaction because loan profit is based on the anticipated cost of debt—a basic principle of economics. The patent-ineligible end of the 35 U.S.C. § 101 spectrum includes fundamental

economic practices. *See Alice*, 134 S. Ct. at 2355–57. Also, we determine the steps of;

determin[ing] that the second loan is requested to occur in the foreign country;

determin[ing] an expected profit of the second loan based at least in part upon the currency exchange rate of the first loan;

chang[ing] the interest rate of the first loan based on the comment about the interest rate of the first loan to form a first product,

constitute “analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category.” *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016); *see also buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350 (Fed. Cir. 2014) (determining that claims directed to certain arrangements involving contractual relations are directed to abstract ideas). Thus, determining expected profit of a loan based on the currency exchange rate and interest is an “abstract idea” beyond the scope of § 101.

As in *Alice*, we need not labor to delimit the precise contours of the “abstract ideas” category in this case. It is enough to recognize that there is no meaningful distinction in the level of abstraction between the concept of an intermediated settlement in *Alice* and the concept of determining expected profit of a loan based on the currency exchange rate and interest, at issue here. Both are squarely within the realm of “abstract ideas” as the Court has used that term. That the claims do not preempt all forms of the abstraction or may be limited to foreign country loans, does not make them any less abstract. *See OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1360–61 (Fed. Cir. 2015).

The introduction of a computer into the claims does not alter the analysis at *Mayo* step two. According to the Court,

the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea “while adding the words ‘apply it’” is not enough for patent eligibility. Nor is limiting the use of an abstract idea “to a particular technological environment.” Stating an abstract idea while adding the words “apply it with a computer” simply combines those two steps, with the same deficient result. Thus, if a patent’s recitation of a computer amounts to a mere instruction to “implemen[t]” an abstract idea “on ... a computer,” that addition cannot impart patent eligibility. This conclusion accords with the pre-emption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of “additional featur[e]” that provides any “practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.”

Alice, 134 S. Ct. at 2358 (alterations in original) (citations omitted).

“[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer.” *Alice*, 134 S. Ct. at 2359. They do not.

Taking the claim elements separately, the function performed by the computer at each step of the process is purely conventional. Using a computer to take in data, compute a result, and return the result to a user amounts to electronic data query and retrieval—some of the most basic functions of a computer. All of these computer functions are well-understood, routine, conventional activities previously known to the industry. *See Elect. Power*, 830 F.3d at 1354. In short, each step does no more than require a generic computer to perform generic computer functions.

Considered as an ordered combination, the computer components of Appellants' claims add nothing that is not already present when the steps are considered separately. Sequences of data reception-analysis-communication are equally generic and conventional or otherwise held to be abstract. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) (sequence of receiving, selecting, offering for exchange, display, allowing access, and receiving payment recited an abstraction), *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378 (Fed. Cir. 2017) (sequence of data retrieval, analysis, modification, generation, display, and transmission), *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) (sequence of processing, routing, controlling, and monitoring). The ordering of the steps is therefore ordinary and conventional.

Viewed as a whole, Appellants' claims simply recite the concept of determining expected profit of a loan based on the currency exchange rate and interest. The claims do not, for example, purport to improve the functioning of the computer itself. Nor do they effect an improvement in any other technology or technical field. Instead, the claims at issue amount to nothing significantly more than instructions to determine expected profit of a loan based on the currency exchange rate and interest. Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 134 S. Ct. at 2360.

As to the structural claims, they are no different from the method claims in substance. The method claims recite the abstract idea implemented on a generic computer; the system claims recite a handful of generic computer components configured to implement the same idea.

This Court has long “warn[ed] ... against” interpreting § 101 “in ways that make patent eligibility ‘depend simply on the draftsman’s art.’”

Alice, 134 S. Ct. at 2360 (alterations in original).

We have reviewed all the arguments (Appeal Br. 6–9) Appellants have submitted concerning the patent eligibility of the claims before us which stand rejected under 35 U.S.C. § 101. We find that our analysis above substantially covers the substance of all the arguments which have been made. But for purposes of completeness, we will address various arguments in order to make individual rebuttals of same.

Appellants argue that “the Examiner does not establish a *prima facie* case that the claims are directed to an abstract idea.” (Appeal Br. 7.)

We disagree with Appellants. All that is required of the office to meet its *prima facie* burden of production is the Examiner must “notify the applicant,” “stating the reasons for such rejection,” “together with such information and references as may be useful in judging the propriety of continuing prosecution of his application.” 35 U.S.C. § 132; *see also In re Jung*, 637 F.3d 1356, 1363 (Fed. Cir. 2011). The Examiner has done this here. The Examiner indicated that claims 1, 3, 4, 6–8, 10, 11, 13–15, 17, 18, 20, and 21 are rejected under 35 U.S.C. § 101 as being directed “a fundamental economic practice, as well as a method of organizing human activities, and thus an abstract idea.” (Final Act. 4–5.)

Appellants also argue,

the claims recite “change the [stored] interest rate of the first loan based on the comment about the interest rate of the first loan to form a first product,” a physical step of data transformation. As a result, the claims include a physical process and cannot be directed to an abstract idea.

(Appeal Br. 8.)

We disagree with Appellants that changing interest rates constitutes a physical process—it is a change generated in the human mind and by human decision and not a physical process, such as curing rubber. *Diamond v. Diehr*, 450 U.S. 175, 184 (1981) (“Analyzing respondents’ claims according to the above statements from our cases, we think that a physical and chemical process for molding precision synthetic rubber products falls within the § 101 categories of possibly patentable subject matter.”).

Appellants finally argue, because

the system reduces network traffic associated with communicating noncompetitive offers by “chang[ing] the interest rate of the first loan based on the comment about the interest rate of the first loan to form a first product[,] . . . the claims improve a technological process, technology, or technical field, the claims amount to significantly more than an abstract idea and is patent eligible.

(Appeal Br. 9.)

We disagree with Appellants. Appellants, here, are arguing the effect of the abstraction and not a technological improvement. That is, 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 this case, claim 1 as a whole is focused on satisfying certain contingencies of a “currency of the first loan and the foreign country in which the second loan is requested to occur, [and creating] a second product [] selectable for servicing the second loan.”

In their Reply Brief, Appellants argue,

The Examiner merely argues that the claims do not include an inventive concept because certain elements of the claim (hardware memory, network interface, and processor) are “routine and conventional.” Answer, p. 6. However, the Examiner’s approach is improper because the Examiner does not examine the ordered combination of the elements of the claim. Rather, the Examiner isolates individual elements and declares each element to be known.

(Reply Br. 8).

We disagree with Appellants. First, we disagree with Appellants that the claims in *Rapid Litigation Management Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042 (Fed. Cir. 2016) are analogous to the claims before us. The court in *Rapid Litigation* found that “the claims are directed to a new and useful method of preserving hepatocyte cell.” *Id.* at 1048. A hepatocyte cell is composed from matter, whereas a loan is an abstraction. Second, as found *supra*, we have engaged in “ordered combination” findings. Third, the Examiner’s determination here of “well-understood, routine, and conventional” is directed to the technological environment of the claims (FF. 1), which determination we find proper. That is, the Examiner provides a rational basis for his conclusion stating:

the claims do not amount to an improvement to the functioning of a computer itself; and the claims do not move beyond a general link of the use of an abstract idea to a particular technological environment. The claims merely amount to the application or instructions to apply the abstract idea (i.e. **determining an offer for a loan**) using a generic computer, and is considered to amount to nothing more than requiring a computer workstation and a generic **memory, network interface, and processor** to merely carry out the abstract idea itself.

Id. Such an analysis is a factual determination. See *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1369 (Fed. Cir. 2018) (“Whether something is well-

understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination.”). We find the Examiner’s noting (FF. 1) of generic nature of the component parts recited in the claims provides sufficient evidence of a generic computer system used to implement the abstraction. *See Credit Acceptance Corp. v. Westlake Services*, 859 F.3d 1044, 1057 (Fed. Cir. 2017) (“Significantly, the claims do not provide details as to any non-conventional software for enhancing the financing process.”). *See 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”).

CONCLUSIONS OF LAW

We conclude the Examiner did err in rejecting claims 1, 3, 4, 6–8, 10, 11, 13–15, 17, 18, 20, and 21 under 35 U.S.C. § 103.

We conclude the Examiner did not err in rejecting claims 1, 3, 4, 6–8, 10, 11, 13–15, 17, 18, 20, and 21 under 35 U.S.C. § 101.

DECISION

The decision of the Examiner to reject claims 1, 3, 4, 6–8, 10, 11, 13–15, 17, 18, 20, and 21 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). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED.