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SCHWEGMAN LUNDBERG & WOESSNER, P.A.
P.O. BOX 2938
MINNEAPOLIS, MN 55402

EXAMINER
KWONG, CHO YIU

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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 KENT F. IVANOFF, VINCENT MARTINO,
NIKOLAUS R.A. TROTTA, and DAVID L. ARNETT

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Appeal 2019-005785
Application 14/590,817
Technology Center 3600

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Before MURRIEL E. CRAWFORD, MICHAEL W. KIM, and
PHILIP J. HOFFMANN, *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, 2, 4–13, and 15–22. 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 the assignee, iVinci
Partners, LLC. Appeal Br. 2.

CLAIMED SUBJECT MATTER

The claims are directed to a systems and methods of managing payments. Spec. ¶ 2. The claimed invention:

> may, for example, enable brokering of charges or balances, configuring financing and payment options for settling amounts owed, assessing guarantor propensity to pay, linking of multiple guarantor accounts to a manager guarantor, linking of accounts across multiple billing systems, gathering and deriving business intelligence data, managing and presenting account data, facilitating dispute resolution, and generating longitudinal portrayals of visits, among other things, to, for example, improve a payment experience for a business, a customer, and other parties involved.

Spec. ¶ 4.

Claim 7, reproduced below, is illustrative of the claimed subject matter:

> 7. A computer-implemented method for creating unified data from linking accounts across separate healthcare billing systems, the method comprising:
> transmitting a first request to a first patient billing system to obtain first visit data that is tracked by the first patient billing system, wherein the first request is conducted according to a first data sharing protocol, and wherein the first request identifies a first patient account of an identified patient;
> receiving the first visit data from the first patient billing system in response to the first request, wherein the first visit data conforms to a first data format;
> transmitting a second request to a second patient billing system to obtain second visit data that is tracked by the second patient billing system, wherein the second request is conducted according to a second data sharing protocol, wherein the second request identifies a second patient account of the identified patient, wherein the second patient billing system is independent from the first patient billing system, and wherein

the first patient billing system obtains data from a first data source to fulfill the first request and the second patient billing system obtains data from a second data source to fulfill the second request;

receiving the second visit data from the second patient billing system in response to the second request, wherein the second visit data confonns to a second data format, wherein the first visit data and the second visit data relate to transactions submitted by respective healthcare providers for distinct health care charges of the identified patient, with the first visit data specifying a first visit charge for a first visit, and the second visit data specifying a second visit charge for a second visit;

aggregating the first visit data pertaining to the first visit charge with the second visit data pertaining to the second visit charge, using an aggregation of data for the identified patient in a particular time frame of the first visit and the second visit, wherein the data is aggregated based on an association of a characteristic of the identified patient occurring in the first visit and the second visit;

generating unified visit data from among linked accounts based on the aggregate of the first visit data and the second visit data, wherein the unified visit data represents a longitudinal record of distinct healthcare transactions for the identified patient, and wherein the unified visit data conforms to a third data format;

generating a graphical representation of a statement encompassing the unified visit data from among the linked accounts, the statement including information from the first visit data pertaining to the first visit charge aggregated with infom1ation from the second visit data pertaining to the second visit charge;

receiving payment data specifying a payment vehicle for paying a payment amount within the graphical representation of the statement;

communicating a transaction request to a payment gateway to request the payment gateway process an electronic financial transaction to obtain payment funds in the payment amount from a payor financial institution associated with the payment vehicle, to transfer a first portion of the payment funds

to a payee financial institution associated with the first patient billing system, and to transfer a second portion of the payment funds to a payee financial institution associated with the second patient billing system; and

communicating one or more electronic posting files to notify the first patient billing system of transfer of the first portion of the payment funds toward payment of the charge for the first visit and to notify the second patient billing system of transfer of the second portion of the payment funds toward payment of the charge for the second visit.

REJECTION

Claims 1, 2, 4–13, and 15–22[2] are rejected under 35 U.S.C. § 101 as directed to a judicial exception without an inventive concept.

OPINION

Principles of Law

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,

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[2] Although rejected in the Final Action, claims 23 and 24 were canceled by amendment, after the final rejection, on February 15, 2018, and the amendment was entered by the Examiner on February 27, 2018.

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, 67 (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 (1854))); 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

5

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.*

In January 2019, the PTO published revised guidance on the application of § 101. *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 of Revised Step 2A of the Guidance

The Appellant argues all claims together as a group. *See, generally,*

Appeal Br. 9–15. We select claim 7 as representative. *See* 37 C.F.R.

§ 41.37(c)(1)(iv).

In a final rejection prior to the publication of the Guidance, the

Examiner finds the claims "are directed to aggregating a first and a second

patient visit data to generate a third data to process payment of bill," and are

similar to cases found abstract "such as organizing existing data into a new

form in *Digitech Image Technologies, LLC v. Electronics for Imaging, Inc.*"

Final Act. 4.

After publication of the Guidance, the Examiner finds, "[b]ut for

being executed by one or more processors, the steps of the claimed invention

[are] of no significant difference from a human operator or analyst manually

sending request, receiving data, aggregating data and generating data,"

which, under the Guidance, "covers commercial practice." Ans. 4.

Claim 7 recites the following two steps, after several limitations about

transmitting requests for data and receiving data, and before limitations

about generating a statement, and receiving and communicating additional data:

> aggregating the first visit data pertaining to the first visit charge with the second visit data pertaining to the second visit charge, using an aggregation of data for the identified patient in a particular time frame of the first visit and the second visit, wherein the data is aggregated based on an association of a characteristic of the identified patient occurring in the first visit and the second visit;
>
> generating unified visit data from among linked accounts based on the aggregate of the first visit data and the second visit data, wherein the unified visit data represents a longitudinal record of distinct healthcare transactions for the identified patient, and wherein the unified visit data conforms to a third data format.

The Specification describes that the system uses a "matching engine" to identify unmatched accounts, and associates the accounts with each other, using a matching algorithm. Spec. ¶ 175 (cited at Appeal Br. 7). The matching engine "may utilize a matching algorithm that may use or otherwise consider, for example, one or more of: a name of the patient or guarantor on the unmatched transaction, at least a portion of an ID number (e.g., an SSN, driver's license), a date of birth, and an address." Spec. ¶ 175. Then, the "batching engine 1014 may associate all visits for a given guarantor (or group of linked guarantors) during a specific period of time (e.g., monthly) and present this aggregated pool of obligations as a batch of open charges and/or an open charges balance for payment or for financing." Spec. ¶ 176.

The above-recited processes of aggregating and generating unified data involves making observations about the data, evaluating the data, and making judgments about the data, which are concepts that can be performed

8

practically in the mind, and thus claim 7 recites a process that can be practically performed mentally. Guidance at 52; *see also* MPEP § 2106.04(a)(2)(III)(A). Tellingly, the Specification indicates that the process can be performed manually, by relying on manual intervention when matching by the matching engine fails. Spec. ¶¶ 154, 175, 208.

In addition, because the method of aggregating billing data is directed to improving payment systems (Spec. ¶ 4), and the above-recited claim limitations involving the same, the claim also recites commercial interactions, and thus represents an abstract method of one of certain methods of organizing human activity. Guidance at 52 ("commercial or legal interactions"); *see also* MPEP § 2106.04(a)(2)(II)(A).

We thus agree with the Examiner that claim 7, as recited, is a process that essentially involves "manually sending request, receiving data, aggregating data and generating data" that can be practically performed mentally, and also "covers commercial practice (such as aggregating patent visit data for billing purposes in the invention)." Ans. 4. The claims thus recite judicial exceptions in the form of processes that can be performed mentally and commercial interactions.

Prong Two of Revised Step 2A of the Guidance

Next, we evaluate whether the judicial exception is integrated into a "practical application." Guidance at 54.

The additional elements, beyond the abstract idea, appear in two groups, as follows. Before the limitations that aggregate and generate unified data, the claim recites:

transmitting a first request to a first patient billing system
to obtain first visit data . . . ;
receiving the first visit data from the first patient billing
system in response to the first request . . . ;
transmitting a second request to a second patient billing
system to obtain second visit data . . . ;
receiving the second visit data from the second patient
billing system in response to the second request . . . .

After the limitations that aggregate and generate unified data, the
claim recites:

generating a graphical representation of a statement
encompassing the unified visit data . . . ;
receiving payment data specifying a payment vehicle for
paying a payment amount within the graphical representation of
the statement;
communicating a transaction request to a payment
gateway to request the payment gateway process an electronic
financial transaction . . . ; and
communicating one or more electronic posting files to
notify the first patient billing system of transfer of the first
portion of the payment funds toward payment of the charge for
the first visit and to notify the second patient billing system of
transfer of the second portion of the payment funds toward
payment of the charge for the second visit.

The statement generated is "a graphical representation," which the
Appellant asserts is supported in paragraphs 175 and 177 of the
Specification. Appeal Br. 7. There is no description there of any particular
manner of generating the statement, so we construe the claim term to mean a
simple output step of printing billing information on paper, or an electronic
approximation of printed output.

The first four limitations, of transmitting requests and receiving data,
and the receiving of payment information, in the second group, are directed

10

to data gathering and thus are insignificant extra-solution activity. Guidance at 55; *see also* MPEP § 2106.05(g).

The remaining limitations in the second group, that generate a statement and communicate results, are steps that essentially generate output of the aggregated, unified data, and are also insignificant extra-solution activity. Guidance at 55; *see also* MPEP § 2106.05(g); *Bilski v. Kappos*, 561 U.S. 593, 610–11 (2010) ("*Flook* stands for the proposition that the prohibition against patenting abstract ideas 'cannot be circumvented by attempting to limit the use of the formula to a particular technological environment' or adding 'insignificant postsolution activity.'") (*Quoting Diehr*, 450 U.S. at 191–92).

Continuing the analysis, we note the method concerns "managing payments" (Spec. ¶ 2), and as such the claimed method does not improve *another* technology, because any improvement recited by the claims concerns managing payments through consolidated billing and payments. Guidance at 55; *see also* MPEP § 2106.05(a). The Specification describes that the method "may be embodied in machine-executable instructions to be executed by a general-purpose or special-purpose computer (or other electronic device)." Spec. ¶ 426. Because a particular computer is not required, the claim also does not define or rely on a "particular machine." Guidance at 55; *see also* MPEP § 2106.05(b). Further, the method does not transform matter. Guidance at 55; *see also* MPEP § § 2106.05(c). The method has no other meaningful limitations (MPEP § 2106.05(e)), and thus merely recites instructions to execute the abstract idea on a computer (MPEP § 2106.05(f)). Guidance at 55.

11

As such, based on the guidelines articulated in the Guidance and MPEP, we determine that claim 7 does not integrate the judicial exception into a "practical application."

Step 2B of the Guidance

In Step 2B, we consider whether an additional element, or combination of additional elements, adds a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field. Guidance at 56.

The additional elements of transmitting requests, receiving data, generating output files, and communicating a message to process a payment, are basic computer operations capable of being performed by any general-purpose computer, as is what the claimed invention relies on. *See* Spec. ¶ 426. The operations of storing, analyzing, receiving, and writing 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) ("Absent a possible narrower construction of the terms 'processing,' 'receiving,' and 'storing,' discussed below, those functions can be achieved by any general purpose computer without special programming."). And a re-evaluation of those additional elements as an ordered combination does not lead us to a different result.

We thus conclude under Step 2B that the method of claim 1 does not represent an inventive concept that is something more than the recited abstract idea.

Arguments

We are not persuaded by the Appellant's argument that the claims are not a mental process because claim 7's "*generating a graphical representation of a statement*" is, according to the Appellant, "not simply something that a human can do manually or mentally, but instead is directed to providing a graphical representation (a computer output) which includes a *statement encompassing the unified visit data from among the linked accounts.*" Appeal Br. 10–11.

First, the claim limitation fails to recite that it is performed by, or for, a computer, and even if it did involve "computer output," such an output step is merely insignificant extra-solution activity, as we noted above.

Second, the Specification does not describe the act of generating a graphical representation as anything beyond merely creating a bill or invoice or statement that contains information. *See* Spec. ¶¶ 175, 177 (cited at Appeal Br. 7). Creating bills, invoices, and statements has been performed manually by businesses and governments for hundreds of years, with a variety of contents.

We are also unpersuaded by the Appellant's argument that the claims are not directed to a commercial interaction, because "the claims do not recite the actions of 'billing' or 'payment' by itself, but rather, how to <u>unify and process disparate formats of billing data</u> to enable downstream payment processing to more efficiently occur. Appeal Br. 11; *see also* Reply Br. 2–3. Reformatting data is a task that can be performed mentally by a human. Additionally, the invention as described as "managing payments" and being able to "improve a payment experience." Spec. ¶ 4. Managing payments is part of normal commercial interactions for each party to a transaction.

Citing our Decision on Appeal in Application 14/954,763, the Appellant argues that in that case "the Board confirmed that the claims as a whole were <u>not directed to an abstract idea</u>," and that therefore the claims here are similarly patent eligible. Appeal Br. 11; *see also* Reply Br. 3–4. We disagree with the Appellant's characterization of the decision, because, instead of what is asserted, in that Decision we reversed the rejection under § 101 on the basis of a lack of evidence on the part of the Examiner as to whether the additional limitations beyond the abstract idea were well-understood, routine, and conventional. *Ex parte Ivanoff*, Appeal No. 2017-006131 at 13 (PTAB 2018). In any case, the limitations present in those claims, for which the Examiner failed to provide evidence, are not found in the claims before us today and therefore because the claims are different, our earlier decision is not relevant to the instant claims on appeal.

The Appellant argues that, based on communicating notice of payment to each billing system, and linking account data from separate billing systems, the claimed invention is directed to a practical application, because these steps reduce the number of data transactions and operations that need to be performed. Appeal Br. 12–13; *see also* Reply Br. 4–5. Rather than accept the Appellant's definition of "practical application" as a method that reduces the number of data transactions and operations, our analysis is based on the elements we articulated above. *See* Guidance at 54–55.

We are not persuaded by the Appellant's argument that the Examiner has failed to provide evidence that "the particular element or combination of elements expressed in the claims (e.g., the configuration of the generic

14

computer) is well-understood, routine, and conventional," especially because there are no prior-art rejections pending. Appeal Br. 14–15.

Although our analysis above also addresses whether the "additional elements" in the claim are well-understood, routine, and conventional, the Examiner provided ample evidence in the rejection on this issue, as demonstrated by the following excerpt:

> The limitations are merely instructions to implement the abstract idea on a computer and require no more than a generic computer to perform generic computer functions including transmitting request (Receiving or transmitting data over a network, e.g., using the Internet to gather data, *Symantec*), receiving data (Receiving or transmitting data over a network, e.g., using the Internet to gather data, *Symantec*), communicating to notify a system (Receiving or transmitting data over a network, e.g., using the Internet to gather data, *Symantec*), extracting data (Electronically scanning or extracting data from a physical document, *Content Extraction and Transmission*) and receiving selection (Receiving or transmitting data over a network, e.g., using the Internet to gather data, *Symantec* or A web browser's back and forward button functionality, *Internet Patent Corp. v. Active Network, Inc.*).

Final Act. 5.

The Appellant has not persuaded us of error in the Examiner's rejection of claims under 35 U.S.C. § 101 as directed to a judicial exception without an inventive concept. For the reasons above, we sustain the rejection.

CONCLUSION

The Examiner's rejection is affirmed.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 2, 4–13, 15–22	101	Eligibility	1, 2, 4–13, 15–22	

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