UNITED STATES PATENT AND TRADEMARK OFFICE

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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 AMY C. MILAM, ANITA C. GALLIANI, STEPHAN J. KLAUS,
WALTER LO FARO, LORRIE M. LITTLEFIELD, PAULINE OW,
GAUTAM UPPALAPATI, and THAKUR B. KONDASANI

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Appeal 2017-011317[1]
Application 13/949,066
Technology Center 3600

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Before ELENI MANTIS MERCADER, NORMAN H. BEAMER, and
ADAM J. PYONIN, *Administrative Patent Judges*.

PYONIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the
Examiner's Final Rejection of claims 1–23. App. Br. 1. We have
jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] The real party in interest is MasterCard International Incorporated. App.
Br. 1.

STATEMENT OF THE CASE

Appellants' disclosure relates to "facilitating processing of electronic payments by approximate matching payee information, entered on behalf of a payor for a bill being paid by the payor." Spec. ¶ 2. Claims 1, 9, and 17 are independent. Claim 1 is reproduced below for reference:

> 1.   A computer system for verifying payee information in an electronic payment, said computer system comprising a payee verification processor in communication with a database, said payee verification processor programmed to:
>   identify a plurality of billers from the database, each biller of the plurality of billers including biller information, wherein the biller information includes a plurality of biller fields;
>   receive, at a gateway processor of said payee verification processor, a payee file that includes payee information identifying a payee, wherein the payee issues a bill for payment to a payor, wherein the payee information includes a plurality of payee fields;
>   selectively distribute, using a load balancer of said payee verification processor, the payee file to at least one node of a multi-node cluster;
>   extract, using an inbound process at the at least one node, the payee information from the payee file;
>   store the payee information in a flow control database;
>   detect, by a data warehouse node of said payee verification processor, that the payee information is stored in the flow control database;
>   determine an approximate match score for each biller in a first set of billers of the plurality of billers by using a matching engine of the data warehouse node to compare the payee information stored in the flow control database to the biller information;
>   identify a candidate list of billers from the first set of billers, wherein each of the billers included within the candidate list has an approximate match score indicating a likelihood of matching the payee information;

adjust the candidate list of billers, including altering the
match score of at least one candidate biller by comparing a
payee account number of the payee information to an account
mask associated with the at least one candidate biller;

identify a set of data fields included within the plurality
of payee fields for calculating a confidence score;

calculate the confidence score for each biller included in
the candidate list of billers, the confidence score of each biller
being generated by assigning a confidence value for each of the
data fields included within the set of data fields, wherein the
confidence value represents a degree of match between the data
field and a corresponding biller field of a respective biller;

determine that at least one biller from the candidate list
has a confidence score that exceeds a confidence score
threshold; and

output candidate biller information of the at least one
biller from the adjusted candidate list having the confidence
score that exceeds the confidence score threshold.

The Examiner's Rejection

Claims 1–23 stand rejected under 35 U.S.C. § 101 as being directed to
a judicial exception to patent eligibility. Final Act. 3.

ANALYSIS

We have reviewed the Examiner's rejections in light of Appellants'
arguments. We have considered in this Decision only those arguments
Appellants actually raised in the Briefs. Any other arguments Appellants
could have made but chose not to make in the Briefs are deemed to be
waived. *See* 37 C.F.R. § 41.37(c)(1)(iv). We adopt the Examiner's findings
and conclusions as our own, to the extent consistent with our analysis herein.

Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 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. In the first step, "[w]e must first determine whether the claims at issue are directed to a patent-ineligible concept." *Alice*, 134 S.Ct. at 2355. In the second step of the *Alice* analysis, we "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." *Alice*, 134 S.Ct. at 2355 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 78–79 (2012)). In other words, the second step is to "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.'" *Id.* (alteration in original) (quoting *Mayo*, 566 U.S. at 72–73).

Regarding step one of the *Alice* framework, the Examiner determines the claims are abstract, as they are directed to "the basic concept of manipulating information using mathematical relationships" and similar to the subject matter of *Digitech Image Technologies, LLC v. Electronics for Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014). Ans. 3. Regarding step two of the *Alice* framework, the Examiner determines that, taking the claim elements separately or considered as an ordered combination,

> the limitations describe a field of use that attempt to limit the abstract idea to a particular technological environment. The additional elements also fail to provide significantly more than the abstract idea itself. The type of information being manipulated does not impose meaningful limitations or render the idea less abstract.

Ans. 3.

Appellants argue that "the *Digitech* decision is not remotely analogous" to the claims (Reply Br. 3) and that "the present claims recite specific rules directed to a technological improvement, and are analogous to the patent-eligible claims in *McRO* [*McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016)]." Reply Br. 6. Appellants further contend the "claims specifically address the problem of verifying imperfect payee information when processing electronic bill payment data for an electronic payment transaction" and are "are analogous to the patent-eligible claims" in both *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (2016) (*see* Reply Br. 6) and *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014). *See* Reply Br. 7.

We agree with the Examiner that the claims are directed to an abstract concept. *See* Final Act. 2–4, Ans. 2–4. Without re-enumerating the entire claim, the claim ultimately "output[s] candidate biller information" after determining an approximate match score, altering the match score, calculating a confidence score, assigning a confidence value, and using a confidence score threshold. We are not persuaded the Examiner errs in determining the claims are directed to "manipulating information using mathematical relationships." Ans. 3; *see also* Spec. ¶ 56 ("This approximate matching methodology utilizes a technique of string comparison that captures, mathematically, the linguistic concept of 'nearness', as applied to biller names and addresses.").

The claims are, thus, comparable to claims found to be directed to abstract ideas. "Without additional limitations, a process that employs mathematical algorithms to manipulate existing information to generate additional information is not patent eligible." *Digitech Image Techs., LLC v.*

Elecs. for Imaging, Inc., 758 F.3d 1344, 1351 (Fed. Cir. 2014); *see also Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016) ("collecting information, analyzing it, and displaying certain results of the collection and analysis" are "abstract-idea processes"); *Return Mail, Inc. v. United States Postal Service*, 868 F.3d 1350, 1368 (Fed. Cir. 2017) (Claim reciting, *inter alia*, "receiving from a sender a plurality of mail items" and "identifying undeliverable mail items" held "directed to the abstract idea of 'relaying mailing address data'"); *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1344 (Fed. Cir. 2013) ("the abstract idea of handling insurance-related information," which includes "generating tasks [based on] rules . . . to be completed upon the occurrence of an event") (internal quotations and citation omitted); *EasyWeb Innovations, LLC v. Twitter, Inc.*, 689 F. App'x 969, 971 (Fed. Cir. 2017) (Determining the claim, which verifies the sender based on a data comparison, "merely recites the familiar concepts of receiving, authenticating, and publishing data.").

With regard to Appellants' arguments regarding *McRO*, *Enfish*, and *DDR Holdings*, we are unpersuaded by Appellants' arguments that "the present claims recite specific rules directed to a technological improvement" as the claims describe mathematical operations performed in order to "verify[] payee information in an electronic payment." Reply Br. 6–7. We agree with the Examiner that to the degree computer hardware is recited in the claims, these "limitations describe a field of use that attempt to limit the abstract idea to a particular technological environment" and any improvements relate to the abstract process itself and *not* to the technological environment. Ans. 3.

Further, we find no support in the disclosure for improvements in the technological environment as touted by Appellants. Instead, we find the disclosure describes an improvement of *"facilitating increased usage of electronic payments* by identifying payees capable of receiving electronic payments" (Spec. ¶ 31, emphasis added), in part through calculation of a string similarity value that is "in the realm of linear algebra" (Spec. ¶ 65). The claims address a problem which does not specifically arise in the operation of computer software, nor does the invention amount to an improvement to technology. *See* Spec. ¶¶ 20, 23, 34, 94–102, 119, 120. We agree with the Examiner's finding that "[p]rocessing imperfect payee information rapidly and efficiently is not a technical issue. It is a clerical issue." Adv. Act. 2.

Accordingly, we are not persuaded the Examiner errs. We sustain the Examiner's 35 U.S.C. § 101 rejection of claims 1–23.

DECISION

The Examiner's decision rejecting claims 1–23 under 35 U.S.C. § 101 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