UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/245,120	04/04/2014	VADIM L STELMAN	G-633	8241

919   7590   11/09/2018
PITNEY BOWES INC.
INTELLECTUAL PROPERTY & PROCUREMENT LAW DEPT.
37 EXECUTIVE DRIVE
MSC 01-152
DANBURY, CT 06810

EXAMINER
SHEIKH, ASFAND M

ART UNIT	PAPER NUMBER
3627	

NOTIFICATION DATE	DELIVERY MODE
11/09/2018	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

iptl@pb.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte VADIM L STELMAN

Appeal 2017-008813[1]
Application 14/245,120[2]
Technology Center 3600

Before JOSEPH A. FISCHETTI, BRUCE T. WIEDER, and
MATTHEW S. MEYERS, *Administrative Patent Judges*.

MEYERS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's
Final Rejection of claims 1–4. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

CLAIMED INVENTION

Appellant's claims relate "generally to systems and methods for data
analysis, and more particularly to systems and methods that can match

---

[1] Our decision references Appellant's Appeal Brief ("Br.," filed
June 1, 2016), the Examiner's Answer ("Ans.," mailed October 7, 2016),
and Final Office Action ("Final Act.," mailed January 25, 2016).
[2] Appellant identifies Pitney Bowes Inc., as the real party in interest (Br. 2).

closed account records to active account records for use in analyzing multi-account customer locations across several time periods" (Spec. ¶ 1).

Claims 1 and 3 are the independent claims on appeal. Claim 1, reproduced below with minor formatting changes and added bracketed notations, is illustrative of the subject matter on appeal:

> 1.   A method for a processing device to generate a file that matches inactive accounts to active accounts included in address matching result output files from different time periods, each address matching result including at least one group containing at least one entity, the method comprising:
>
> [a] initializing, by the processing device, a new file to contain the matched inactive and active accounts;
>
> [b] evaluating, by the processing device, each group from each address matching result output file to place entities in each respective group into a new group in the new file by:
>
> > [c] generating a new group identifier and adding the entities to the new file under the new identifier if none of the group's entities are already in the new file;
> >
> > [d] making no changes to the new file if all of the group's entities are already in the new file;
> >
> > [e] adding those entities not in the new file to the new file under a group identifier for those entities from the group that are already in the new file if some but not all of the groups [sic] entities are already in the new file and all of the entities already in the new file are under the same group identifier;
> >
> > [f] adding those entities not in the new file to the new file under a group identifier already in the new file using predetermined rules to select the group identifier if some but not all of the group's entities are already in the new file under multiple different group identifiers; and
>
> [g] outputting, by the processing device, the new file.

REJECTIONS

Claims 1–4 are rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

Claims 1–4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rowland (US 2006/0004595 A1, pub. Jan. 5, 2006) and Cohen (US 2010/0153383 A1, pub. June 17, 2010).

ANALYSIS
Patent ineligible subject matter
Independent claims 1 and 3, and dependent claims 2 and 4

Appellant argues claims 1–4 as a group (*see* Br. 4–8). We select independent claim 1 as representative. Claims 2–4 stand or fall with independent claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Under 35 U.S.C. § 101, an invention is patent-eligible if it claims a "new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101. The Supreme Court, however, has long interpreted § 101 to include an implicit exception: "[l]aws of nature, natural phenomena, and abstract ideas" are not patentable. *See, e.g., Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014).

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth 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 Corp.*, 134 S. Ct. at 2355. The first step in that analysis is to "determine whether the claims at issue are directed to one of those patent-ineligible concepts." *Id.* If the

claims are not directed to a patent-ineligible concept, e.g., an abstract idea, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered "individually and 'as an ordered combination'" to determine whether there are additional elements that "'transform the nature of the claim' into a patent-eligible application." *Id.* (quoting *Mayo*, 566 U.S. at 79, 78).

The Court acknowledged in *Mayo*, that "all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Mayo*, 566 U.S. at 71. Therefore, the Federal Circuit has instructed that claims are to be considered in their entirety to determine "whether their character as a whole is directed to excluded subject matter." *McRO, Inc. v. Bandai Namco Games Am., Inc.*, 837 F.3d 1299, 1312 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)).

In rejecting the pending claims under 35 U.S.C. § 101, the Examiner determined that the claims are directed to "the concept of matching data and reconciling such data" which relates to "to a fundamental economic practice and/or mathematical relationship/formula (i.e., computerized matching of data (e.g., using addresses))" (Final Act. 2, 5). More particularly, the Examiner determined that the claims are directed to "the abstract idea of generating a file that matches inactive accounts to active accounts in address matching result files from different time periods" (Ans. 2). The Examiner also determined that the additional elements or combination of elements in the claims, other than the abstract idea, amount to "no more than: (i) mere instructions to implement the idea on a computer, and/or (ii) recitation of generic computer structure that serves to perform generic computer

4

functions that are well-understood, routine, and conventional activities previously known to the pertinent industry"; and that viewed as a whole, these additional claim elements do not provide meaningful limitations to transform the abstract idea into a patent-eligible application of the abstract idea such that the claims amount to significantly more than the abstract idea itself (Final Act. 3; *see also* Ans. 2–4).

Appellant argues that the present claims are not directed to an abstract idea because "[t]he claims at issue are not directed to any of [the] examples of abstract ideas within the meaning of the Alice opinion" (Br. 4). However, the Supreme Court in *Alice* did not rigidly define or otherwise restrict the universe of abstract ideas to one or more of: a building block of human ingenuity, a fundamental economic practice, and an algorithm. *See Alice Corp.*, 134 S. Ct. at 2357 ("[W]e need not labor to delimit the precise contours of the 'abstract ideas' category . . . ."). And, under step one of the framework set forth in *Alice*, we agree with the Examiner that the invention is broadly directed to the abstract idea of "computerized matching of data" (*see* Final Act. 5; *see also* Ans. 2), and is similar to the steps that the Federal Circuit determined were patent ineligible in *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016) (collecting information and "analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, [are] essentially mental processes within the abstract-idea category") and *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) (a method that can be performed by human thought alone, or by a human using pen and paper, is merely an abstract idea and is not patent-eligible under § 101).

According to Appellant's Specification, the present invention "relates generally to systems and methods for data analysis, and more particularly to systems and methods that can match closed account records to active account records for use in analyzing multi-account customer locations across several time periods" (Spec. ¶ 1). The Specification identifies that a known four part matching process suffers from deficiencies related to companies not keeping closed account data up-to-date, one company splitting into two or more different locations, and equipment relocation (*id.* ¶ 3). The present invention, thus, addresses these deficiencies by beginning

> with the most recent view of the customer and goes back in the history of the match results generated using the known four part process. The process generates new groupings of the active and inactive entities of the same customer locations using different rules for historical groups to determine in which new groupings each old group should be placed. The new groupings group together not only the current accounts of a business location but also the accounts that used to belong to that location earlier during the period being analyzed to allow for a complete analysis of customer location.

(*Id.* ¶ 4). And, taking independent claim 1 as representative, the claimed subject matter is generally directed to creating a new file for the matched accounts, i.e., "initializing," "evaluating . . . each group from each address . . . to place entities in each respective group into a new group in the new file," and "outputting . . . the new file." The method includes steps for matching inactive accounts to active accounts, i.e., "evaluating," by:

> generating a new group identifier and adding the entities to the new file under the new identifier if none of the group's entities are already in the new file; making no changes to the new file if all of the group's entities are already in the new file; adding those entities not in the new file to the new file under a group identifier for those entities from the group that are already in the new file

> if some but not all of the groups [sic] entities are already in the
> new file and all of the entities already in the new file are under
> the same group identifier; [and] adding those entities not in the
> new file to the new file under a group identifier already in the
> new file using predetermined rules to select the group identifier
> if some but not all of the group's entities are already in the new
> file under multiple different group identifiers[.]

(Br.; Claim App'x i).

Accordingly, we find that independent claim 1 involves nothing more
than receiving data, analyzing data, and providing data, without any
particular inventive technology — activities squarely within the realm of
abstract ideas. *See, e.g., Elec. Power Grp.*, 830 F.3d at 1353–54 (when
"[t]he 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). *See also Accenture Global Servs., GmbH v.
Guidewire Software, Inc.*, 728 F.3d 1336, 1344–45 (Fed. Cir. 2013) (claims
reciting "generalized software components arranged to implement an
abstract concept [of generating insurance-policy-related tasks based on rules
to be completed upon the occurrence of an event] on a computer" not patent
eligible).

Appellant argues that the current claims are not directed to an abstract
idea because they are similar to the claims in *Enfish, LLC v. Microsoft
Corp.*, 822 F.3d 1327 (Fed. Cir. 2016) (*see* Br. 6). More particularly,
Appellant argues that the present claims "are directed to a specific
improvement in the way computers operate embodied in the generation of a
file that matches inactive accounts to active accounts in address matching
result output files" (*id.*). However, we find the focus of independent claim 1
is not on any technological advancement, but rather on the implementation

7

of the abstract idea, "for which computers are invoked merely as a tool."
See Enfish, 822 F.3d at 1336.

In *Enfish*, the court explained, "the first step in the *Alice* inquiry . . .
asks whether the focus of the claims is 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." *Id.* at
1335–36. Here, we find the present claims are plainly of the second
category, and the "focus of the claims," is on "computerized matching of
data" (Final Act. 5) by evaluating or analyzing addresses (*see id.*), or more
precisely, "generating a file that matches inactive accounts to active
accounts in address matching result files from different time periods"
(Ans. 2). Thus, we find the present claims are not similar to the "self-
referential table" in *Enfish*, which was a "specific improvement to the way
computers operate" or the "specific asserted improvement in computer
animation, i.e., the automatic use of rules of a particular type" held to be not
abstract in *McRO*.

Turning to the second step of the *Mayo/Alice* framework, rather than
reciting additional elements that amount to "significantly more" than the
abstract idea, exemplary independent claim 1, at best, adds only "processing
device," i.e., "a personal computer, server, mainframe or the like that
includes at least one processing device 12" (*see, e.g.*, Spec. ¶ 13), which
lacks an inventive concept. Although the steps of independent claim 1 may
be tied to a computer (*see* Br. 7), that is not sufficient by itself to transform
the abstract idea into patent-eligible subject matter. *See, e.g., DDR
Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014)
("[A]fter *Alice*, there can remain no doubt: recitation of generic computer

8

limitations does not make an otherwise ineligible claim patent-eligible. The bare fact that a computer exists in the physical rather than purely conceptual realm 'is beside the point.'" (citation omitted)).

And, similar to *Electric Power*, we are not apprised of anything other than off-the-shelf, conventional computer and display technology for gathering, analyzing, and presenting the desired information to remove the claim from the class of subject matter ineligible for patenting. As the court explained in *Electric Power*, "merely selecting information, by content or source, for collection, analysis, and display does nothing significant to differentiate a process from ordinary mental processes, whose implicit exclusion from § 101 undergirds the information-based category of abstract ideas." *Elec. Power Grp.*, 830 F.3d at 1355.

Appellant last argues that even if the claims are directed to an abstract idea, the claims are nonetheless patent-eligible because "they cover a particular approach to organizing digital information for storage and quick retrieval and present no risk of preempting any abstract idea" (Br. 7–8). However, Appellant's preemption argument does not alter our § 101 analysis. Preemption concerns are fully addressed and made moot where a patent's claims are deemed to disclose patent-ineligible subject matter under the two-part framework described in *Mayo* and *Alice*. *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). "While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility." *Id.*

In view of the foregoing, we are not apprised of Examiner error and, thus, we sustain the Examiner's rejection under 35 U.S.C. § 101 of independent claim 1, and claims 2–4, which fall with independent claim 1.

Obviousness

Independent claims 1 and 3, and dependent claims 2 and 4

We are persuaded by Appellant's argument that the Examiner erred in rejecting independent claims 1 and 3 under 35 U.S.C. § 103(a), because Rowland, upon which the Examiner relies, does not disclose or suggest evaluating a group of entities from an address matching result output file based on the steps recited by limitations [c]–[f] of independent claim 1, and similarly recited by independent claim 3 (*see* Br. 8–9).

The Examiner maintains that the rejection is proper, and cites Rowland, at paragraphs 55–60 and figures 7 and 8 (Final Act. 4, 7; *see also* Ans. 5–6). However, we agree with Appellant that there is nothing in the cited portions that discloses or suggests the argued limitations.

Rowland is directed "to a process of collecting and enhancing commercial data" (Rowland ¶ 3). Rowland describes "a method of data integration comprising collecting information comprising primary data. The primary data is tested for accuracy and processed to produce secondary data and enhanced information comprising the primary data and the secondary data" (*id.* ¶ 8). In an entity matching embodiment, Rowland's "[e]ntity matching driver **110** checks the incoming data **104** to see if it belongs to any existing business in database **118**" (*id.* ¶ 55; *see also* Fig. 7). Rowland discloses that its "[e]ntity matching driver 110 detects similarities in incoming data and combines it into a single business" (*id.* ¶ 56). If, for

example, different address data is found, the different address data "and other associated information is also reconciled into a complete single business **704**" (*id.* ¶ 55). Rowland further discloses "incoming data **104** that matches a business in database **118** is appended to that business through entity matching driver **110**" (*id.* ¶ 57). When incoming data does not match "any business [data] in database **118** is sourced through internal and external data sources and matched to an emerging business or, as shown in **FIG. 10**, is assigned an identification number and held in an single source repository as learnings are gained on the entity" (*id.*). Rowland further discloses that its

> method includes cleaning and parsing and standardizing **1102**, performing candidate retrieval **1104**, and evaluation and decision making **1106**. Cleaning and parsing **1102** includes identifying key components of inquiry data **1108**, normalizing and standardizing name, address, and city **1110**, performing name consistency **1112**, and performing address standardization **1114**. Candidate retrieval **1104** includes gathering possible match candidates from a reference database **1116**, using optimized keys to improve retrieval quality and throughput **1118**, and retrieval is optimized based on data provided in the inquiry data, observations of existing reference data and ongoing tuning **1120**. Evaluation and decision making **1106** includes evaluating matches according to a consistent standard **1122**, applying a match grade **1124**, applying a confidence code **1126**, and applying a confidence percentile **1128**.

(*Id.* ¶ 58).

We have reviewed the cited portions of Rowland, and agree with Appellant that none of the cited portions of Rowland discloses or suggests the argued limitations. Instead, we agree with Appellant that Rowland does not disclose or suggest

> performing entity matching based on whether or not some but
> not all of the groups [sic] entities are already in a new file and all
> of the entities already in the new file are under the same group
> identifier, or adding those entities not in the new file to the new
> file under a group identifier already in the new file using
> predetermined rules to select the group identifier if some but not
> all of the group's entities are already in the new file under
> multiple group identifiers as is recited in claims 1 and 3.

(Br. 9). Although we agree with the Examiner that Rowland's

"entity matching driver" detects similarities and differences in data and

reconciles the data into a complete a single business (Ans. 6 (citing Rowland

¶¶ 56–57)), we do not see, and the Examiner does not explain adequately

how or why Rowland discloses or suggests "adding those entities not in the

new file to the new file under a group identifier" in situations when "some

but not all of the groups entities are already in the new file," as required by

limitations [d] and [e] of independent claim 1, as similarly recited by

independent claim 3. The Examiner does not rely on Cohen to address this

limitation (*see* Final Act. 7).

In view of the foregoing, we do not sustain the Examiner's rejection

of independent claims 1 and 3 under 35 U.S.C. § 103(a). For the same

reasons, we also do not sustain the Examiner's rejection of claims 2 and 4,

which depend therefrom.

DECISION

The Examiner's rejection of claims 1–4 under 35 U.S.C. § 101 is

affirmed.

The Examiner's rejection of claims 1–4 under 35 U.S.C. § 103(a) is

reversed.

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).

<u>AFFIRMED</u>