



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.
13/274,231	10/14/2011	Mark Carlson	79900-803255	8556

66945 7590 03/16/2018
KILPATRICK TOWNSEND & STOCKTON LLP/VISA
Mailstop: IP Docketing - 22
1100 Peachtree Street
Suite 2800
Atlanta, GA 30309

EXAMINER

AUSTIN, JAMIE H

ART UNIT	PAPER NUMBER
----------	--------------

3683

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

03/16/2018

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):

ipefiling@kilpatricktownsend.com
EDurrell@kilpatricktownsend.com
KTSDocketing2@kilpatrick.foundationip.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARK CARLSON and SURENDRA KESHAN

Appeal 2016-008178
Application 13/274,231¹
Technology Center 3600

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

This is an appeal from the final rejection of claims 1–34. We have jurisdiction to review the case under 35 U.S.C. §§ 134(a) and 6(b).

The invention relates generally to “describing the location of a consumer and transaction data from a transaction using a portable consumer

¹ The Appellants identify the “real party in interest in this patent application is Visa International Service Association.” Appeal Br. 3.

device, such as a credit card,” where the “mobile device is used to determine the approximate location of the account holder at the time of the transaction.” Spec. ¶¶ 2–3.

Claim 1 is illustrative:

1. A method of generating electronic heat maps using location data and transaction data, the method comprising:
 - receiving, by a server computer, an authorization request after a payment card of an account holder is used for payment in a transaction, wherein the payment card is associated with a mobile device;
 - obtaining, by the server computer, transaction data for the transaction based at least in part on the authorization request;
 - processing, at the server computer, the authorization request by transmitting the authorization request to an issuer of the payment card;
 - receiving, by the server computer, an approval or a denial of the authorization request, wherein the issuer of the payment card approves or denies the transaction;
 - responsive to receiving the approval or denial of the authorization, transmitting, by the server computer, a location request message to a location aggregator, wherein the location request includes an identifier for the mobile device;
 - receiving, at the server computer, a location request response from the location aggregator, wherein the location request response includes location data describing a geographic location of the mobile device;
 - generating, by the server computer, a dataset that correlates the location data of the mobile device with the transaction data of the transaction; and
 - generating, by the server computer based at least in part on the dataset, an electronic heat map that graphically depicts a correlation between the geographic location of the mobile device and the transaction data of the transaction.

Claims 1–34 are rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter in the form of an abstract idea with “significantly more.”

Claims 1, 4, 11, 13–19, 21, 24, 26, and 28–34 are rejected under 35 U.S.C. § 103(a) as unpatentable over Fourez (US 2011/0047075 A1, pub. Feb. 24, 2011), Cho et al. (US 2010/0198626 A1, pub. Aug. 5, 2010), and Dehner et al. (US 6,429,868 B1, iss. Aug. 6, 2002).

Claims 2, 3, 6, 7, 9, 10, 12, and 20 are rejected under 35 U.S.C. § 103(a) as unpatentable over Fourez, Cho, Dehner, and Ramalingam et al. (US 2011/0238514 A1, pub. Sept. 29, 2011).

Claims 5, 8, and 25, are rejected under 35 U.S.C. § 103(a) as unpatentable over Fourez, Cho, Dehner, and Fiedler et al. (US 6,883,708 B1, iss. Apr. 26, 2005).

Claims 22 and 23 are rejected under 35 U.S.C. § 103(a) as unpatentable over Fourez, Cho, Dehner, and Hammad (US 2011/0022483 A1, pub. Jan. 27, 2011).

Claim 27 is rejected under 35 U.S.C. § 103(a) as unpatentable over Fourez, Cho, Dehner, Ged Carroll, “I like: eBay’s Black Friday heat map”, Nov. 28, 2009 (last retrieved on Oct. 23, 2012 from <http://renaissancechambara.jp/2009/11/28/i-like-ebays-black-friday-heat-map/>), and Richard Brewer-Hay, “What does Black Friday look like on eBay?”, Nov. 28, 2009 (last retrieved on Oct. 23, 2012 from <http://ebayinkblog.com/2009/11/28/what-does-black-friday-look-like-on-ebay/>).

We AFFIRM.

ANALYSIS

Patentable subject matter

Appellants argue all independent claims together as a group. Appeal Br. 12. We select claim 1 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

We are unpersuaded by the Appellants' arguments that the Examiner oversimplified and mischaracterizes the claims, and "ignores most of the recitations of at least the independent claims." Appeal Br. 10–11.

The Examiner finds the claims are directed to "mapping customer transaction data." Final Act. 6; *see also* Answer 3–4. Claim 1 recites, in the first four limitations, steps that correspond to sending and receiving information as part of processing a credit or debit card transaction. Claim 1 also recites steps for transmitting and receiving messages to obtain a location, for creating a "data set" with the received transaction and location information, and for mapping the data. The claim is, thus, directed to receiving transaction and location information, and creating a map with this information. This is essentially the same as "mapping customer transaction data," because the only difference is receiving the data that is mapped, which steps are considered mere data gathering steps. *See Bilski v. Kappos*, 545 F.3d 943, 963 (Fed. Cir. 2008) (*en banc*), *aff'd sub nom Bilski v. Kappos*, 561 U.S. 593 (2010) (characterizing data gathering steps as insignificant extra-solution activity).

The steps of claim 1 are similar to claims held to be directed to abstract ideas by our reviewing court.

For example, the *East Coast* court held, about claims that map a ventilation system layout to standard fittings and displayed visually to avoid the need to redraw architectural drawings, "it would be difficult to conceive

of a more abstract concept than ‘mapping.’” *E. Coast Sheet Metal Fabricating Corp. v. Autodesk, Inc.*, 2015 WL 226084, at *6 (D.N.H. Jan. 15, 2015), *amended in part*, 2015 WL 925614 (D.N.H. Mar. 3, 2015), and *aff’d*, 645 F.Appx. 992 (Fed. Cir. 2016).

In *MacroPoint*, the Court found “that the patent is directed at a method for tracking freight, which is an abstract concept.” *MacroPoint, LLC v. FourKites, Inc.*, 2015 WL 6870118, at *4 (N.D. Ohio Nov. 6, 2015), *aff’d*, 671 F.Appx. 780 (Fed. Cir. 2016). *MacroPoint* also includes a dependent claim, found abstract, that is directed to generating a map of the data about vehicle location:

8. The method of claim 1, wherein the location signal is configured to cause display of a visual representation of the location of the vehicle or the freight carried by the vehicle on the remote device's user interface by displaying a map that includes a mark indicating the location of the vehicle on the map.

Because Appellants’ claim 1 is similar to other claims the court has held to be directed to abstract mapping of received data, it is also directed to the abstract idea of “receiving data and mapping the received data.”

Answer 12.

In addition, the request for and receipt of data, which is then mapped, is a process that can be performed entirely through mental thought with the use of pen and paper, which additionally means the claim is directed to an abstract idea. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) (noting, in the context of the claims in that case, that “a method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101.”).

If the claim is “directed to” a patent-ineligible abstract idea, as we find claim 1 is, we then consider the elements of the claim—both

individually and as an ordered combination—to assess whether the additional elements transform the nature of the claim into a patent-eligible application of the abstract idea. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (2014). This is a search for an “inventive concept”—an element or combination of elements sufficient to ensure that the claim amounts to “significantly more” than the abstract idea itself. *Id.*

The Appellants argue the “additional features” of the claims “amount to significantly more than the alleged abstract idea.” Appeal Br. 14–18; *see also* Reply Br. 8–10. However, the only reason given to support this argument is that the claims “provide improvements over the technical field of electronic transaction processing and data analytics.” *Id.* 15–16. We find this unpersuasive. First, the claims do not alter “electronic transaction processing,” at least because they merely rely on standard credit/debit transaction processing in the claim to receive the conventional transaction data. *See, e.g.*, Spec. ¶ 20. The transaction process, from which information is gathered, is no different from standard transaction processing, and, therefore, the claim scope does not represent an improvement in transaction processing.

In addition, the “field of the invention is related to location data describing the location of a consumer and transaction data from a transaction using a portable consumer device, such as a credit card.” *Id.* ¶ 2. The claims are, thus, basically directed to correlating and displaying data. The resulting map *could* be used in a process for analyzing data, but any data analysis is outside the scope of the claims. Therefore, the claims do not improve data analytics.

We are unpersuaded by the Appellants’ argument that the claims do not “‘monopolize’ the general ability of others to perform any alleged abstract idea.” Appeal Br. 15. “While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015); *see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 701 (2015) (“[T]hat the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract.”). And, “[w]here a patent’s claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot.” *Ariosa*, 788 F.3d at 1379.

The Appellants next argue:

[T]he present claims are necessarily rooted in computer technology to overcome a technical problem specifically arising in the realm of computer technology. For example, the recited elements of the claims require a unique series communication among and specialized logic implemented by various computing devices or components thereof for implementing the generation of heat maps.

Appeal Br. 19. The Appellants also argue, as to independent claims 11 and 21, that the system components claimed are each configured with “specialized logic.” *Id.*

These arguments are unpersuasive, because the claims merely transmit requests for, and receive, data, which is then stored in a “data set,” and maps the data. We discern no “unique series communication” or “specialized logic” required to send and receive messages, because we are

unpersuaded that sending and receiving data is anything other than a standard function of a general purpose computer, which does not require special programming. Further, the creation of a “heat map” can be performed mentally with pen and paper, and does not require a computer with specialized programming.

The Appellants also argue the claimed invention

overcomes a technical problem specifically arising in the realm of computer technology. In particular, the advancement in network mobile computing technologies made it possible for a consumer to initiate electronic transactions with their mobile devices wherever they choose instead of from known static locations.

Id.

The argument, however, is not commensurate in scope with the claims, because it implies a new function using a mobile device, such as a smartphone, to initiate electronic financial transactions. Claim 1 recites that “a payment card of an account holder is used for payment in a transaction.” Independent claim 11 recites “a transaction has been initiated using a payment card.” Independent claims 16 and 21 each recites “a transaction has been initiated using a payment card.” All claims, thus, use a payment card, not a mobile device, to initiate the transactions. The systems the claim uses to ask for, receive, store, and map the data, are all general purpose computer systems. *See Spec.* ¶ 92.

Inasmuch as the Appellants’ arguments do not establish that the claims recite an “inventive concept” that transforms the abstract idea into patent-eligible subject matter, the Appellants have not shown error in the Examiner’s rejection. For this reason, we sustain the rejection of claims 1–34 under 35 U.S.C. § 101 as directed to abstract ideas.

Rejection of Claims 1, 4, 11, 13–21, 24, 26, and 28–34 under
35 U.S.C. § 103(a)

The Appellants argue independent claims 1, 11, 16, and 21 together as a group (Appeal Br. 25), so we select claim 1 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

We are unpersuaded by the Appellants’ arguments that Fourez does not disclose generating a data set with the specific data that correlates mobile device location data with transaction data, as claimed. Appeal Br. 21.

In support of the “generating . . . a data set” limitation, the Appellants direct us to paragraph 51 of the Specification, which states the system takes location and transaction data, “and associates this data together in a transaction record,” that is stored. Spec. ¶ 51. Fourez discloses receiving location data for a mobile device, and transaction data that identifies the location of the payment card use, and using the data “to determine, in the managing computer system, whether the geographic origin of the authorization request matches the geographic location determined by the mobile device.” Fourez ¶ 7. By storing the location and transaction data together in memory so the system can make the determination, Fourez meets the language to generate a data set with location and transaction data, as claimed.

We also are unpersuaded by the Appellants’ argument that Fourez fails to disclose heat maps (Appeal Br. 21), because the Examiner relies on Cho and Dehner as disclosing heat maps. Final Act. 9–10.

The Appellants next argue Cho does not disclose a heat map that maps mobile device location correlated to transaction data, because Cho instead maps “generating a heat map to indicate popular products or stores in a shopping mall.” Appeal Br. 21–22. However, Fourez correlates the location of a mobile device with transaction data, but not conveying this correlated information as a heat map, which Cho and Dehner disclose. The argument, thus, is directed to alleged shortcomings in Cho, when the rejection is based on a combination of Fourez, Cho, and Dehner.

We are not persuaded also by the Appellants’ argument that Dehner “fails to teach a correlation between a geographic location of a mobile device and the transaction data” in creating its heat map. Appeal Br. 22.

The Examiner found that Fourez fails to disclose a heat map, but found both Cho and Dehner disclose a heat map. Final Act. 9–10 (“Fourez does not specifically teach heat mapping.”) Therefore, neither Cho nor Dehner is necessary to disclose the precise correlated information Fourez already discloses.

The Appellants finally argues “[n]othing in the Cho or Dehner discloses or even suggests ‘storing data related to analyzing the locations of a customer’s transactions.’ As such, the *Office Action* has failed to establish sufficient rationale to combine *Fourez*, *Cho*, and *Dehner*.” Appeal Br. 24. We are not persuaded by the Appellants’ argument, because, to the extent Appellants seek an explicit suggestion or motivation in the reference itself, this is no longer the law in view of the Supreme Court’s holding in *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007). The Examiner, at pages 9–11 of the Final Action, provided “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*,

441 F.3d 977, 988 (Fed. Cir. 2006). The Appellants do not dispute the Examiner's reasoning.

For these reasons, we sustain the rejection of claims 1, 4, 11, 13–21, 21, 24, 26, and 28–34 under 35 U.S.C. § 103(a).

Rejections of Claims 2, 3, 5–10, 12, 22, 23, 25, and 27 under 35 U.S.C. § 103(a)

The Appellants argue each of these dependent claims only by asserting that the additional references used in the rejections fail to remedy alleged shortcomings in the rejection of the independent claims. Appeal Br. 24–26. We sustain the rejections, because we are unpersuaded of shortcomings in the rejection of claim 1 as to the last two limitations—generating a data set and generating a heat map—as asserted. For this reason, we sustain the rejections of claims 2, 3, 5–10, 12, 22, 23, 25, and 27 under 35 U.S.C. § 103(a).

DECISION

We affirm the rejection of claims 1–34 under 35 U.S.C. § 101.

We affirm the rejections of claims 1–34 under 35 U.S.C. § 103(a).

Appeal 2016-008178
Application 13/274,231

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