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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JULIE NOELLE TIBSHIRANI,
RYAN AMELIA BEIERMEISTER,
DANIEL PATRICK CERVELLI,
TIMOTHY JAMES SLATCHER,
GREGORY DEJUAN MARTIN,
ANTOINE ALEXANDRE ADRIEN LLORCA, and
TIMOTHY JAMES WILSON

Appeal 2018-000231[1]
Application 15/090,524
Technology Center 2600

Before: ELENI MANTIS MERCADER, JAMES W. DEJMEK, and JENNIFER S. BISK, *Administrative Patent Judges*.

MANTIS MERCADER, *Administrative Patent Judge*.

DECISION ON APPEAL

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[1] Appellants identify Palantir Technologies Inc., as the real party in interest. App. Br. 1.

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from the Examiner's Final rejection of claims 1–24. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

CLAIMED SUBJECT MATTER

The claims are directed to techniques for displaying stack graphs. Claim 1, reproduced below, is illustrative of the claimed subject matter:

> 1. A method comprising:
>
> receiving a set of event data, wherein the set of event data comprises:
>
> a plurality of event targets;
>
> a plurality of event sources;
>
> a plurality of event objects, wherein an event object comprises:
>
> a first identifier that identifies an event target of the plurality of event targets that corresponds to the event object;
>
> a second identifier that identifies an event source of the plurality of event sources that corresponds to the event objects; and
>
> event time data;
>
> displaying a stack graph for the set of event data, wherein the stack graph comprises:
>
> a timeline;
>
> a plurality of stack lines, wherein a stack line comprises one or more event overlays;
>
> wherein each particular stack line in the plurality of stack lines corresponds to a particular event target in the plurality of event targets;
>
> determining a cardinality of a first event target by:
>
> identifying a set of event objects that correspond to the first event target;

identifying a set of event sources that correspond to the set of event objects;

counting a number of unique event sources in the set of event sources;

using the number of unique event sources as the cardinality of the first event target;

in response to determining that the cardinality of the first event target is below a cardinality threshold, excluding the first event target from the stack graph;

wherein the method is executed using one or more processors.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Kaler et al. "Kaler"	US 6,467,052 B1	Oct. 15, 2002
Grigsby et al. "Grigsby"	US 2005/0215867 A1	Sept. 29, 2005
Kincaid et al. "Kincaid"	US 2006/0028471 A1	Feb. 9, 2006
Shi et al. "Shi"	US 2008/0215563 A1	Sept. 4, 2008
Stluka et al. "Stluka"	US 2009/0106652 A1	Apr. 23, 2009
Tate	US 2010/0106651 A1	Apr. 29, 2010
Wagenblatt	US 2012/0150576 A1	June 14, 2012
De Pauw et al. "De Pauw"	US 2013/0117676 A1	May 9, 2013
Nelke et al.	US 2014/0046927 A1	Feb. 13, 2014

"Nelke"		
Bedros et al. "Bedros"	US 2015/0009031 A1	Jan. 8, 2015
Hong	US 2016/0217218 A1	July 28, 2016

REJECTIONS

Claims 1–24 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more. Final Act. 2–21.

Claims 1–4, 12–15, 23, and 24 stand rejected under 35 U.S.C. § 103 as being unpatentable over Stluka in view of Hong. Final Act. 21–36.

Claims 5 and 16 stand rejected under 35 U.S.C. § 103 as being unpatentable over Stluka, Hong, and further in view Kaler. Final Act. 36–38.

Claims 6 and 17 stand rejected under 35 U.S.C. § 103 as being unpatentable over Stluka, Hong, and further in view Kincaid. Final Act. 38–39.

Claims 7 and 18 stand rejected under 35 U.S.C. § 103 as being unpatentable over Stluka, Hong, Kincaid, and further in view Bedros. Final Act. 39–41.

Claims 8 and 19 stand rejected under 35 U.S.C. § 103 as being unpatentable over Stluka, Hong, Kincaid, De Pauw, and further in view of Shi. Final Act. 41–43.

Claims 9 and 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Stluka, Hong, Grigsby, and further in view in of Wagenblatt. Final Act. 43–46.

Claims 10 and 21 stand rejected under 35 U.S.C. § 103 as being unpatentable over Stluka, Hong, and further in view Tate. Final Act. 46–48.

Claims 11 and 22 stand rejected under 35 U.S.C. § 103 as being unpatentable over Stluka, Hong, and further in view Nelke. Final Act. 48–49.

OPINION

We adopt the Examiner's findings in the Answer and Final Office Action and we add the following primarily for emphasis. We note that if Appellants failed to present arguments on a particular rejection, we will not unilaterally review those uncontested aspects of the rejection. *See Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential); *see also Hyatt v. Dudas*, 551 F.3d 1307, 1313–14 (Fed. Cir. 2008) ("[T]he Board may treat . . . argument[s]" Appellants failed to make for a given ground of rejection as waived).

Claims 1–24 stand rejected under 35 U.S.C. § 101

Appellants argue the Examiner's finding that "displaying a stack graph by reciting steps of organizing information through mathematical relationships/correlations" oversimplifies numerous features of the claims related to determining cardinality values, determining distance scores using shingles, and graphical representations of event objects. App. Br. 10.

Appellants argue that the Examiner has not cited a single case that found displaying a stack graph as an abstract idea. App. Br. 11.

In particular Appellants argue that as in *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016), the court concluded the claims were directed to an improvement to a computer-related technology and, therefore, not an abstract idea. App. Br. 12. According to Appellants, the claims are directed to solving specific problems that are faced with determining patterns in large sets of data using a computer. App. Br. 12. Appellants assert the claims include technical computer-related elements that attempt to solve particular problems that are unique to the computer context. *Id.*

Appellants further argue that "additional elements" of the present claims qualify as "significantly more" not only because they are not generic computer functions, but also because they add specific imitations that are unconventional. App. Br. 14–20.

Appellants assert the instant claims are eligible for a streamlined analysis. App. Br. 20–21.

We are not persuaded by Appellants' arguments. As an initial matter, "[f]or purposes of efficiency *in examination*, a streamlined analysis can be used for a claim that may or may not recite a judicial exception but, when viewed as a whole, *clearly* does not seek to tie up any judicial exception such that others cannot practice it." *2014 Interim Guidance on Patent Subject Matter Eligibility*, 79 Fed. Reg. 74618, 74625 (December 16, 2014) (emphases added). Additionally, the Interim Guidance indicates a "full analysis should be conducted" if there is doubt that the applicant is effectively seeking coverage for a judicial exception. *Interim Guidance*, 79 Fed. Reg. at 74625. Thus, a streamlined eligibility analysis is available to

Examiners who are of the view that a claim clearly does not have a subject matter eligibility problem. In this Appeal, the controlling law on patent eligibility is the two-step test under *Alice/Mayo* as described herein.

The Supreme Court's two-step framework guides our analysis. *See Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 218 (2014). According to step one, "[w]e must first determine whether the claims at issue are directed to a patent-ineligible concept," such as an abstract idea. *Id.*

Our reviewing court has concluded that abstract ideas include the concepts such as the collection and analysis of information. *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). Additionally, the collecting of data, recognizing certain data within the collected data set, and storing the data in memory are also abstract ideas. *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1347 (Fed. Cir. 2014). Similarly, "collecting, displaying, and manipulating data" is an abstract idea. *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017); *see also SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018) ("[M]erely presenting the results of abstract processes of collecting and analyzing information . . . is abstract as an ancillary part of such collection and analysis.") (citation omitted). Moreover, "a process of organizing information through mathematical correlations and is not tied to a specific structure or machine" is abstract. *Digitech Image Techs., LLC v. Elec. for Imaging, Inc.*, 758 F.3d 1344, 1350 (Fed. Cir. 2014).

Further, merely combining several abstract ideas does not render the combination any less abstract. *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d

1322, 1327 (Fed. Cir. 2017) ("Adding one abstract idea (math) to another abstract idea . . . does not render the claim non-abstract."); *see also FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016) (determining the pending claims were directed to a combination of abstract ideas).

In the instant case, Appellants' claims are generally directed to the collecting and organizing of event objects, and displaying of the organized objects as stack graphs. We agree with the Examiner's findings that there exists a correlation/relationship between the involved data wherein such data correlation/relationship is used in identifying a particular number of unique event sources and such number can be used to determining cardinality that can further affect the display of a stack graph by excluding the particular event target from the stack graph (i.e., based on a threshold comparison). *See* Ans. 14. We further agree with the Examiner that there exists organization of information which affects how the graph will be displayed (i.e., received information being utilized and processed to provide a graph output). *Id.*

Furthermore, merely "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" and "presenting the results of abstract processes of collecting and analyzing information, without more (such as identifying a particular tool for presentation), is abstract as an ancillary part of such collection and analysis." *Elec. Power*, 830 F.3d at 1354. The Examiner finds, and we agree, that a human being could mentally perform the claimed identifying, counting, and determining step based on available data that the human being has recorded.

Ans. 15. In particular, a human being could manually delete the portion of a pencil drawn stack graph that corresponds to the first event target which satisfied a threshold condition. *Id.* Thus, determining cardinality can consist solely of mental steps which can be carried out by a human using pen and paper. *Id.*

The additional limitations recited in the dependent claims do not change the character of the claims or alter our conclusion that the claims are directed to an abstract idea. For example, claim 6 further recites, *inter alia*, determining a distance score between a first and second stack line. Claims 7 and 8 further describe an approach for determining the distance score. We agree with the Examiner that "determining distance scores using shingles" can be performed by determining a first and second shingle based on analyzing respective stack lines and determining the Jaccard index between the shingles. *Id.* We further agree with the Examiner that there exists a correlation/relationship between involved data (i.e., the first and second stack lines) where such data correlation/relationship is used in organizing information (i.e., determining the distance score is based on the determined Jaccard index between the shingles in which each shingle is determined by analyzing the first and second stack lines and where such determined score can be used in grouping the stack lines). *Id.*

Thus, we agree with the Examiner that the claims are directed to an abstract idea. Because the claims are "directed to an abstract idea," we consider the claim limitations "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* 573 U.S. at 218–219 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566

U.S. 66, 78–79 (2012)). The Supreme Court has described this analysis "as a search for an 'inventive concept.'" *Alice,* 573 U.S. at 218–219. Put differently, we must search the claims for an "inventive concept," that is, "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* 573 U.S. at 217–218 (quoting *Mayo*, 566 U.S. at 72–73).

Here, we agree with the Examiner that although the claim language recites "wherein the method is executed using one or more processors," such limitations amount to mere computer components recited at a high level of generality and add no more to the claimed invention than the components that perform basic mathematical functions/operations routinely provided by a general purpose computer. Ans. 20–21. As explained in *OIP Technologies, Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015), "relying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible." *See also Alice*, 573 U.S. at 224 ("[U]se of a computer to create electronic records, track multiple transactions, and issue simultaneous instructions" is not an inventive concept.); *see also Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Can. (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) (A computer "employed only for its most basic function . . . does not impose meaningful limits on the scope of those claims.").

For the reasons discussed *supra*, we are unpersuaded that the Examiner erred in rejecting under 35 U.S.C. § 101 claim 1 as being directed to patent-ineligible subject matter. Accordingly, we sustain the Examiner's rejection of claim 1. Additionally, we sustain the Examiner's rejection of

independent claim 12, which recites similar limitations and was not argued separately. *See* 37 C.F.R. § 41.37(c)(1)(iv) (2016). Further, we sustain the Examiner's rejection of claims 2–11 and 13–24, which depend directly or indirectly therefrom and were not argued separately. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Claims 1–4, 12–15, and 23–24 rejected under 35 U.S.C. § 103

Appellants argue that the combination of Stluka and Hong does not teach or suggest the limitations of:

> determining a cardinality of a first event target by:
> identifying a set of event objects that correspond to the first event target;
> identifying a set of event sources that correspond to the set of event objects;
> counting a number of unique event sources in the set of event sources;
> using the number of unique event sources as the cardinality of the first event target;
> in response to determining that the cardinality of the first event target is below a cardinality threshold, excluding the first event target from the stack graph;

as recited in claim 1. App. Br. 5–8. In particular, Appellants argue that in Hong, the "cardinality" is determined by merely counting the number of occurrences of tags and not by determining a cardinality of a first event target as in Claim 1 by identifying a set of event objects and identifying a set of event sources. App. Br. 7–8. Appellants further argue that Hong does not contemplate "counting a number of unique event sources in the set of event sources," as recited in claim 1. App. Br. 8.

The Examiner relies on Stluka for the teaching of identifying a plurality of equipment that has caused deviations which can reasonably be interpreted as the claimed "unique event sources" as each equipment (i.e., corresponding to claimed event source) that caused a particular deviation (i.e., corresponding to claimed event object) can be considered as unique as it is a particular source(s) that caused specific event(s). *See* Ans. 5, 7 (citing Stluka, paras. 33, 48, and 58). The Examiner finds, and we agree, that Stluka teaches visualizing the deviation which occurred in each associated target (i.e., such as a monitoring limit) and source of deviation (i.e., such as equipment that caused deviation) where each target is displayed on each row of a graphical display and each deviation is displayed as bars on each row, and the cause of the deviation is displayed in a particular pattern. *See* Ans. 5, and 7–8; *see also* Stluka, para. 58, Fig. 4.

The Examiner relies on Hong for teaching the feature of graphing of statistical data where particular data with a number of occurrences being less than the threshold number of occurrences is excluded from graphing (Hong, paras. 119 and 120). Ans. 6. Additionally, the Examiner finds Hong teaches the feature of excluding particular data from being graphed based on the condition of a number of occurrences of certain data being less than the threshold number of occurrences. *Id.* In particular, the Examiner explains Hong's determined number of occurrences of particular data can reasonably be interpreted as the claimed "cardinality." *Id.* The Examiner relies on the Merriam-Webster dictionary defining cardinality as: "the number of elements in a given mathematical set." *Id.* In order for Hong to accurately determine the number of occurrences, the Examiner finds, and we agree, that it is obvious that such number of occurrences need to be counted. *Id.*

Additionally, Hong's threshold number of occurrences can reasonably be interpreted as the claimed "cardinality threshold" as Hong's threshold is being compared to the determined number of occurrences. *Id.*

We agree with the Examiner that the combination would not allow for graphing of a row that corresponds to a particular target which is related to deviations when the determined number is less than a threshold. Ans. 8. Accordingly, the combination would teach the disputed limitation of "in response to determining that the cardinality of the first event target is below a cardinality threshold, excluding the first event target from the stack graph," as recited in claim 1.

Thus we affirm the Examiners' rejection of claim 1 and for the same reasons the rejections of claims 2–24 not argued separately. *See* App. Br. 8; *see also* 37 C.F.R. § 41.37(c)(1)(iv).

DECISION

The Examiner's rejection of claims 1–24 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