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.
14/691,402	04/20/2015	Vladislav Scholgol	31730/3306-00C	1063

12716 7590 12/31/2019

Marshall, Gerstein & Borun LLP (Google)
233 South Wacker Drive
6300 Willis Tower
Chicago, IL 60606-6357

EXAMINER
MORRISON, JAY A

ART UNIT	PAPER NUMBER
2168	

NOTIFICATION DATE	DELIVERY MODE
12/31/2019	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):

mgbdocket@marshallip.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte VLADISLAV SCHOLGOL and JAMES ROBERT MACGILL

Appeal 2018-004670
Application 14/691,402
Technology Center 2100

Before ST. JOHN COURTENAY III, ELENI MANTIS MERCADER, and JOYCE CRAIG, *Administrative Patent Judges.*

MANTIS MERCADER, *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, 5–10, and 13–24. *See* Non-Final Act. 1. Claims 3, 4, 11, and 12 are canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

---

[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 Google Inc. Appeal Br. 1.

CLAIMED SUBJECT MATTER

The claims are directed to a managing search results. Claim 1, reproduced below, is illustrative of the claimed subject matter:

> 1. A computer-implemented method comprising:
>
> receiving a set of search results, wherein the set of search results is responsive to a search query received from a user, wherein each result is associated with a relevance score including a combination of component scores;
>
> identifying one or more of the search results having highest relevance scores;
>
> determining whether the search query is a navigational query or an exploratory query based on component scores of the one or more of the search results having the highest relevance scores; and
>
> determining a number of search results to be presented to the user depending on whether the search query is determined to be a navigational query or an exploratory query based at least in part on component scores of the one or more of the search results having the highest relevance scores, including:
>
> (i) when the search query is determined to be a navigational query, reducing set of search results to only include search results that are within a predetermined distance of a location with which the user is currently associated, and (ii) when the search query is determined to be an exploratory query, not reducing the set of search results.

REFERENCES

The prior art relied upon by the Examiner as evidence is:

Name	Reference	Date
Ge	US 2005/0065916 A1	Mar. 24, 2005
Qingqing Gan et al., *Analysis of Geographic Queries in a Search Engine Log*, LOCWEB 1–8 (2008) ("Gan").		

REJECTION

Claims 1, 2, 5–10, and 13–24 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter.

Claims 1, 2, 7–10, 15–18, 21, and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gan in view of Ge.

OPINION

To the extent consistent with our analysis below, we adopt the Examiner's findings and conclusions in (i) the Non-Final action from which this appeal is taken and (ii) the Answer.

Claims 1, 2, 5–10, and 13–24 stand rejected under 35 U.S.C. § 101[2]

Appellant argues that the Examiner failed to address the claim 1 limitations of "determining whether the search query is a navigational query or an exploratory query based on component scores of the one or more of the search results having the highest relevance scores" and

> determining a number of search results to be presented to the user depending on whether the search query is determined to be a navigational query or an exploratory query based at least in part on component scores of the one or more of the search results having the highest relevance scores

and merely asserted that the claims are directed to "the abstract idea of determining search results to return based on the type of query." App. Br. 13–14.

[2] Based upon Appellant's arguments and our discretion under 37 C.F.R. § 41.37(c)(1)(iv), we decide the appeal of the § 101 rejection of claims 1, 2, 5–10, and 13–24 on the basis of representative claim 1.

Appellant further points us to the Specification explaining that limiting search results "to a single or small number of results near an address or location of a user device" allows "the limited number of search results to be displayed on an online map of a town or neighborhood of a city as opposed to a map of a country or a state" (p. 2, ll. 17–22), and that "displaying a limited number of search results allows more details associated with each search result to be displayed" (and thus, utilize screen real estate more efficiently) (*id.* at ll. 24–25). App. Br. 14.

We do not agree with Appellant's argument. 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, 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 183 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); 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 176; *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 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 recites 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 (internal citation 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.*

The PTO recently published revised guidance on the application of § 101. USPTO, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Memorandum"). Under that 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) (9th Ed., Rev. 08–2017 (Jan. 2018)).

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 Memorandum.

Step 2A, Prong One
The Judicial Exception

Claim 1 recites, in pertinent part, data evaluation of search results based on relevance to determine the type of query whether it is a navigational query or an explanatory query:

> receiving a set of search results, wherein the set of search results is responsive to a search query received from a user, wherein each result is associated with a relevance score including a combination of component scores;
>
> identifying one or more of the search results having highest relevance scores;
>
> determining whether the search query is a navigational query or an exploratory query based on component scores of the one or more of the search results having the highest relevance scores; and
>
> determining a number of search results to be presented to the user depending on whether the search query is determined to be a navigational query or an exploratory query based at least in part on component scores of the one or more of the search results having the highest relevance scores, including:
>
> (i) when the search query is determined to be a navigational query, reducing set of search results to only include search results that are within a predetermined distance of a location with which the user is currently associated, and (ii) when the search query is determined to be an exploratory query, not reducing the set of search results.

Accordingly, we conclude that the above limitations of claim 1 encompass analyzing search results having the highest relevance to

determine whether the query is navigational or exploratory and adjusting the search results to be presented based on the query type (i.e., navigational or exploratory). In particular, we conclude the steps of *identifying* results with highest relevance scores, and *determining* the type of a query as either navigational or exploratory based on the highest relevance scores and reducing the results when it is a navigational query to only results within a predetermined distance of a location could be performed alternatively as mental steps because they involve merely making a mental observation of data and evaluating/judging the data, which can be carried out either in the human mind (e.g., in the form of noting an observation) or with the aid of pencil and paper. *See* 2019 Guidance 52 n.14; *see CyberSource Corp Retail Decisions, Inc.,* 654 F.3d 1366, 1372–73 (Fed. Cir. 2011) ("[A] method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101."); *see also In re Comiskey*, 554 F.3d 967, 979 (Fed. Cir. 2009) ("[M]ental processes—or processes of human thinking—standing alone are not patentable even if they have practical application."); *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) ("Phenomena of nature, . . . mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work." (Emphasis added)). Additionally, mental processes remain unpatentable even when automated to reduce the burden on the user of what once could have been done with pen and paper. *CyberSource*, 654 F.3d at 1375 ("That purely mental processes can be unpatentable, even when performed by a computer, were precisely the holding of the Supreme Court in *Gottschalk v. Benson*."). Acts that can be performed in the human mind fall within the abstract idea exception subgrouping of mental processes.

Thus, we agree with the Examiner that the features of the claim language of "determining whether the search query is a navigational query or an exploratory query based on component scores of the one or more of the search results having the highest relevance scores" and

> determining a number of search results to be presented to the user depending on whether the search query is determined to be a navigational query or an exploratory query based at least in part on component scores of the one or more of the search results having the highest relevance scores

have been identified because the claim language determines a number of search results depending on whether the query is determined to be a navigational query or an exploratory query, which is equivalent to the abstract idea of "determining search results to return based on the type of query." Ans. 3–4 (citing Final Act. 3). As we stated above, this type of determination could be performed alternatively as a mental process.

Step 2A, Prong Two

Regarding the argued purported improvement (Appeal Br. 14), we agree with the Examiner that the claims do not contain limitations directed to a limited number of search results "displayed on an online map of a town or neighborhood" or allow "more details associated with each search result to be displayed" as taught by Appellant's Specification. *See* Ans. 4–5. Accordingly, Appellant's argument is not commensurate in scope with the claim language. *See* Appeal Br. 14.

Moreover, the Examiner further finds, and we agree, that the claim does not positively recite the display or presentation of such results because claim 1 recites "determining a number of search results to be presented to a

user" indicating intended use as opposed to claim language such as "displaying to a user" or "presenting to a user." Ans. 5 (emphasis omitted).

There are no additional elements recited in the body of the claim 1. The only recitation of a computer is in the preamble of the claim reciting "a computer-implemented method" which does not amount to "significantly more" than the abstract idea because it refers to a generic computer device that is merely being used for its intended purpose. This element is recited at a high level of generality and is merely invoked as a tool to analyze the search results to categorize a query. Simply implementing the abstract idea on a generic computer does not integrate the judicial exception into a practical application, without more. *See* Memorandum, *Step 2A, Prong Two*.

Furthermore, as discussed with respect to *Step 2A, Prong Two*, the additional element in the claim amounts to no more than analyzing search results having the highest relevance to determine whether the query is navigational or exploratory and adjusting the search results to be presented based on the query type using generic computers.

Thus, under *Step 2A, Prong Two* (MPEP §§ 2106.05(a)–(c) and (e)–(h)), we conclude the claim does not integrate the judicial exception into a practical application. Therefore, we proceed to *Step 2B*, *The Inventive Concept*.

The Inventive Concept – Step 2B

Under the Memorandum, 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 adds a specific limitation beyond the judicial exception that is not "well-understood, routine,

conventional" in the field (*see* MPEP § 2106.05(d)); **or**, simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

The Examiner finds: "Generic computer components recited as performing generic computer functions that are *well-understood, routine and conventional* activities amount to no more than implementing the abstract idea with a computerized system." Ans. 6 (emphasis added).

Appellant advances no arguments in the Reply Brief (filed March 30, 2018) regarding the intervening case authority: *Berkheimer v. HP Inc*., 881 F.3d 1360 (Fed. Cir. 2018) (decided Feb. 8, 2018). Arguments not made are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv).

We note that mere data manipulations to apply an exception using generic computers, without more, cannot integrate a judicial exception into a practical application at Step 2A, or provide an inventive concept in Step 2B. Moreover, we do not agree with Appellant's argument that the additional elements of the claims are arranged in a non-conventional and non-generic manner. *See* Appeal Br. 15. *See* Memorandum, *Step 2B, Prong 2.*

For at least these reasons, we conclude that representative independent claim 1 is patent ineligible. Accordingly, we affirm the Examiner's rejection of claims 1, 2, 5–10, and 13–24 under 35 U.S.C. § 101.

Claims 1, 2, 7–10, 15–18, 21, and 22 rejected under pre-AIA 35 U.S.C. § 103(a)

Appellant argues that the cited prior art does not teach "determining a number of search results to be presented to the user depending on whether [a] search query is determined to be a navigational query or an exploratory query," where

> (i) when the search query is determined to be a navigational query, reducing set of search results to only include search results that are within a predetermined distance of a location with which the user is currently associated, and (ii) when the search query is determined to be an exploratory query, not reducing the set of search results.

App. Br. 18–21.

We do not agree with Appellant's argument. We agree with the Examiner's finding that Gan discloses classifying queries as geo queries or non-geo queries (Gan, section 4.1) that are equivalent to the claimed navigational query or informational query, and Ge teaches a geographic-based searching where a user-specified location and distance are "'used to restrict, or filter, the set of' search results returned." Ans. 9 (*see* Ge, para. 8) (emphasis omitted). Thus, we agree with the Examiner that Gan teaches the determination of the type of query as geo or non-geo (equivalent to the claimed navigational or exploratory) and then not limiting the results, while Ge teaches applied location and distance filter to geographic search results (which is equivalent to a navigational query in the claim), which when these teachings are combined would render a determination of the query type and limiting of the geo/navigational searches and not of the non-geo/exploratory searches. *See id.* at 8–9.

With respect to claims 2 and 10, Appellant further argues that the cited art does not disclose that "each relevance score includes at least one of a title component and a category component" because "Gan does not disclose or suggest that the domains or the topical categories are included in relevance scores." App. Br. 21–22. We agree with the Examiner that Gan teaches using component scores of each query result, or the web sites or domain name and topical category (sections 6.1–6.4) where any of these

elements could be considered a title or category that is a component of the relevance score. *See* Ans. 10.

Accordingly, we affirm the Examiner's rejection of claims 1, 2, 7–10, 15–18, 21, and 22 under 35 U.S.C. § 103(a).

CONCLUSION

The Examiner's rejection is affirmed.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 2, 5–10, 13–24	101		1, 2, 5–10, 13–24	
1, 2, 7–10, 15–18, 21, 22	103(a)	Gan, Ge	1, 2, 7–15, 18–21, 22	
Overall Outcome:			1, 2, 5–10, 13–24	

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