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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RAJAT BHATTACHARJEE, ARANYAK MEHTA,
BENYU ZHANG, and VIVEK RAGHUNATHAN

Appeal 2019-000570
Application 14/038,634
Technology Center 2100

Before DENISE M. POTHIER, CARL L. SILVERMAN, and
JAMES W. DEJMEK, *Administrative Patent Judges*.

DEJMEK, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ appeals under 35 U.S.C. § 134(a) from a Final Rejection of claims 21, 23–28, 30–35, and 37–40. Appellant has canceled claims 1–20, 22, 29, and 36. *See* Amend. 2–7 (filed Mar. 2, 2018). We have jurisdiction over the remaining pending claims under 35 U.S.C. § 6(b).

We affirm.

¹ Throughout this Decision, we use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42 (2018). Appellant identifies Google LLC as the real party in interest. App. Br. 1.

STATEMENT OF THE CASE

Introduction

Appellant's disclosed and claimed invention generally relates to selecting and providing content items that are relevant to a user. Spec. ¶ 29. In particular, the content items are advertisements that are "targeted to an initial query that the user has submitted, as well as candidate advertisements that are targeted to one or more additional queries that are automatically derived from the initial query." Spec. ¶ 29. In a disclosed embodiment, when a second instance of the initial query is received, presentation of the content block (i.e., advertisements) associated with the additional query may be determined based the historical amount of user interactions with the particular content block. *See* Spec. ¶ 116–124, Fig. 7.

Claim 21 is representative of the subject matter on appeal and is reproduced below:

21. A computer-implemented method comprising:
 - receiving an initial query from a user;
 - determining an additional query that is derived from the initial query, wherein the additional query is related to the initial query and generated using one or more terms of the initial query and a term specifying a context of the initial query;
 - identifying, from on a historical performance log, an amount of user interactions with a particular content block that presented the additional query;
 - determining whether the amount of interactions with the particular content block that presented the additional query satisfies a threshold;
 - in response to determining that the threshold is not satisfied by the amount of user interactions with the particular content block that presented the additional query, filtering out the particular content block from presentation in a search results

page presented in response to the initial query when a second instance of the initial query is received; and

in response to determining that the threshold is satisfied by the amount of user interactions with the particular content block that presented the additional query, including the particular content block in the search results page presented when the second instance of the initial query is received.

The Examiner's Rejection

Claims 21, 23–28, 30–35, and 37–40 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 2–9.²

ANALYSIS

Appellant disputes the Examiner's conclusion that the pending claims are directed to patent-ineligible subject matter. App. Br. 4–12; Reply Br. 1–3. In particular, Appellant argues the pending claims differ from the patent-ineligible claims at issue in *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016) because “the present claims generate new data in the form of the additional query, and then selectively present or filter that new data in order to improve the results of Internet search and retrieval technologies.” App. Br. 5. By selectively presenting content items, Appellant argues computing resources to display content not of interest to the user may be preserved, thereby providing “an improvement in the technical field of Internet search and retrieval functionality.” App. Br. 5–10;

² Throughout this Decision, we have considered the Appeal Brief, filed August 30, 2018 (“App. Br.”); the Reply Brief, filed October 18, 2018 (“Reply Br.”); the Examiner's Answer, mailed October 9, 2018 (“Ans.”); and the Final Office Action, mailed May 4, 2018 (“Final Act.”), from which this Appeal is taken.

Reply Br. 3. In addition, by directing the user to relevant additional queries rather than reviewing every related query, Appellant asserts the pending claims are more like the patent-eligible claims in *Core Wireless Licensing S.A.R.L. v. LG Elec., Inc.*, 880 F.3d 1356 (Fed. Cir. 2018).

The Supreme Court’s two-step framework guides our analysis of patent eligibility under 35 U.S.C. § 101. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014). In addition, the Office recently published revised guidance for evaluating subject matter eligibility under 35 U.S.C. § 101, specifically with respect to applying the *Alice* framework. USPTO, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Office Guidance”). If a claim falls within one of the statutory categories of patent eligibility (i.e., a process, machine, manufacture, or composition of matter) then the first inquiry is whether the claim is directed to one of the judicially recognized exceptions (i.e., a law of nature, a natural phenomenon, or an abstract idea). *Alice*, 573 U.S. at 217. As part of this inquiry, we must “look at the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a whole’ is directed to excluded subject matter.” *Affinity Labs of Tex., LLC v. DirecTV, LLC*, 838 F.3d 1253, 1257–58 (Fed. Cir. 2016) (internal citations omitted). Per Office Guidance, this first inquiry has two prongs of analysis: (i) does the claim recite a judicial exception (e.g., an abstract idea), and (ii) if so, is the judicial exception integrated into a practical application. 84 Fed. Reg. at 54. Under the Office Guidance, if the judicial exception is integrated into a practical application, *see infra*, the claim passes muster under § 101. 84 Fed. Reg. at 54–55. If the claim is directed to a judicial exception (i.e., recites a judicial exception and does not integrate the exception into a practical application),

the next step is to determine whether any element, or combination of elements, amounts to significantly more than the judicial exception. *Alice*, 573 U.S. at 217; 84 Fed. Reg. at 56.

Here, we conclude Appellant’s claims recite an abstract idea. Appellant’s claims are generally directed to conditionally presenting content items (i.e., advertisements) targeted to a related search query based on historical performance (i.e., user interaction) of the content items. This is consistent with how Appellant describes the claimed embodiment of the invention. *See, e.g.*, Spec. ¶¶ 29 (describing the system as providing one or more content items (e.g. advertisements) targeted to an initial query as well as targeted to additional, related queries derived from the initial query), 39 (describing selecting targeted advertisements), 71 (describing the targeted advertisements may be presented based on historical click through rates). “[T]argeted advertising is [a well-known] concept, insofar as matching consumers with a given product or service ‘has been practiced as long as markets have been in operation.’” *Morsa v. Facebook, Inc.*, 77 F. Supp. 3d 1007, 1013 (C.D. Cal. 2014), *aff’d*, 622 F. App’x 915 (Fed. Cir. 2015) (quoting *Tuxis Techs., LLC v. Amazon.com, Inc.*, No. CV 13-1771-RGA, 2014 WL 4382446, at *5 (D. Del. Sept. 3, 2014)). In other words, “[t]he concept of gathering information about one’s intended market and attempting to customize the information then provided is as old as the saying, ‘know your audience.’” *Morsa*, 77 F. Supp. 3d at 1013 (quoting *OpenTV, Inc. v. Netflix Inc.*, 76 F. Supp. 3d 886, 893 (N.D. Cal. 2014)).

Consistent with our Office Guidance and case law, we conclude that conditionally presenting content items (i.e., advertisements) targeted to a related search query based on historical performance (i.e., user interaction)

of the content items is a certain method of organizing human activity (e.g., a commercial interaction, such as marketing or sales activity)—i.e., an abstract idea. *See* 84 Fed. Reg. at 52; *see also Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1369 (Fed. Cir. 2015) (holding that “tailoring content based on the viewer’s location” (i.e., a function of the user’s personal characteristics) is the type of information tailoring that is a fundamental practice long prevalent in our system and is an abstract idea); *Affinity Labs of Tex., LLC v. Amazon.com Inc.*, 838 F.3d 1266, 1271 (Fed. Cir. 2016) (concluding “[l]ike the basic concept of tailoring content to a user, as in *Intellectual Ventures I*, the basic concept of customizing a user interface is an abstract idea”).

Claim 21 is reproduced below and includes the following claim limitations that recite conditionally presenting content items (i.e., advertisements) targeted to a related search query based on historical performance (i.e., user interaction) of the content items, emphasized in *italics*:

21. A computer-implemented method comprising:

receiving an initial query from a user;

determining an additional query that is derived from the initial query, wherein the additional query is related to the initial query and generated using one or more terms of the initial query and a term specifying a context of the initial query;

identifying, from on a historical performance log, an amount of user interactions with a particular content block that presented the additional query;

determining whether the amount of interactions with the particular content block that presented the additional query satisfies a threshold;

in response to determining that the threshold is not satisfied by the amount of user interactions with the particular content block that presented the additional query, filtering out the particular content block from presentation in a search results page presented in response to the initial query when a second instance of the initial query is received; and

in response to determining that the threshold is satisfied by the amount of user interactions with the particular content block that presented the additional query, including the particular content block in the search results page presented when the second instance of the initial query is received.

More particularly, conditionally presenting content items (i.e., advertisements) targeted to a related search query based on historical performance (i.e., user interaction) of the content items comprises (i) determining a related search query to an initial search query term (i.e., the claimed step of determining an additional query); (ii) determining whether the user interactions with content items (i.e., advertisements) targeted to the related search query meet a desired threshold (i.e., the claimed step of determining whether the amount of interactions with the particular content block that presented the additional query satisfies a threshold); and (iii) presenting (or not) the content items targeted to the related search query if the determined user interactions meet (or do not meet) the desired threshold (i.e., the claimed steps of either presenting or not presenting the content block based on whether the user interactions with a particular content block satisfies a threshold).

Because the claim recites an abstract idea, we next determine whether the claim integrates the abstract idea into a practical application. 84 Fed. Reg. at 54. To determine whether the judicial exception is integrated into a practical application, we identify whether there are “*any additional elements*

recited in the claim beyond the judicial exception(s)” and evaluate those elements to determine whether they integrate the judicial exception into a recognized practical application. 84 Fed. Reg. at 54–55 (emphasis added); *see also* Manual of Patent Examining Procedure (“MPEP”) § 2106.05(a)–(c), (e)–(h) (9th ed., Rev. 08.2017, Jan. 2018).

Here, we find the additional limitation(s) do not integrate the judicial exception into a practical application. More particularly, the claims do not recite (i) an improvement to the functionality of a computer or other technology or technical field (*see* MPEP § 2106.05(a)); (ii) use a “particular machine” to apply or use the judicial exception (*see* MPEP § 2106.05(b)); (iii) a particular transformation of an article to a different thing or state (*see* MPEP § 2106.05(c)); or (iv) any other meaningful limitation (*see* MPEP § 2106.05(e)). *See also* 84 Fed. Reg. at 55.

Rather, the additional elements recite that a query is received and user interactions with a particular content block are identified from a historical performance log. Moreover, presenting content items if a threshold has been met (or not presenting the content items if the threshold has not been met) are the types of extra-solution activities (i.e., in addition to the judicial exception) the courts have determined insufficient to transform judicially excepted subject matter into a patent-eligible application. *See* MPEP § 2106.05(g); *see also* *Parker v. Flook*, 437 U.S. 584, 590 (1978) (explaining “[t]he notion that post-solution activity, no matter how conventional or obvious in itself, can transform an unpatentable principle into a patentable process exalts form over substance”); *Bilski v. Kappos*, 561 U.S. 593, 612 (2010) (holding the use of well-known techniques to establish inputs to the abstract idea as extra-solution activity that fails to

make the underlying concept patent eligible); *Elec. Power*, 830 F.3d at 1354 (recognizing “that merely 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”); *Bancorp Servs. LLC v. Sun Life Assurance Co.*, 771 F. Supp. 2d 1054, 1065 (E.D. Mo. 2011) (explaining that “[S]toring, retrieving, and providing data . . . are inconsequential data gathering and insignificant post solution activity”) (quoting from *Ex Parte Cherkas*, 2010 WL 4219765, at *3 (BPAI Oct. 25, 2010)). Moreover, additional elements in the limitations (e.g., determining whether an additional query is sufficiently related to the initial query) merely refine elements of the abstract idea and do not otherwise confer patent eligibility to the claims.

Additionally, contrary to Appellant’s assertions (*see, e.g.*, App. Br. 6, 11–12), the claims do not recite an improvement to the functionality of a computer or other technology or technical field. As the court in *Core Wireless* noted in identifying from the specification multiple different improvements to the user interface, it was clear that the “claims are directed to an improvement in the functioning of computers, particularly those with small screens.” *Core Wireless*, 880 F.3d at 1363. In contrast, in the instant Specification, Appellant states that embodiments of the disclosed invention “may be implemented *to realize none*, one or more of the following advantages” such as (i) as user may view only advertisements likely to be of interest; (ii) fewer squandered advertising opportunities; (iii) increased sales opportunities for the advertiser; and (iv) additional revenue for the search engine provider. Spec. ¶ 17 (emphasis added). Here, the computer function is unchanged—i.e., receiving, processing, and presenting information.

Appellant’s assertion that the claimed invention improves the field of Internet search and retrieval, however, relates to the abstract idea, and does not improve a computer, technology, or a technical field but is instead a result of the abstract idea. *See McRO, Inc. v. Bandai Namco Games America, Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (“We . . . look to whether the claims in these patents focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.”) (citing *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016)). In addition, the additional elements do no more than generally link the use of a judicial exception to a particular technological environment (e.g., the Internet) or field of use (Internet search and retrieval). *See Bilski*, 561 U.S. at 612 (quoting *Diamond v. Diehr*, 450 U.S. 175, 191–92 (1981)) (noting “the prohibition against patenting abstract ideas ‘cannot be circumvented by attempting to limit the use of the formula to a particular technological environment’”); *see also* MPEP § 2106.05(h).

For at least the foregoing reasons, the claims do not integrate the judicial exception into a practical application.

Because we determine the claims are directed to an abstract idea or combination of abstract ideas, we analyze the claims under step two of *Alice* to determine if there are additional limitations that individually, or as an ordered combination, ensure the claims amount to “significantly more” than the abstract idea. *Alice*, 573 U.S. at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72–73, 77–79 (2012)). As stated in the Office Guidance, many of the considerations to determine whether the claims amount to “significantly more” under step two of the

Alice framework are already considered as part of determining whether the judicial exception has been integrated into a practical application. 84 Fed. Reg. at 56. Thus, at this point of our analysis, we determine if the claims add a specific limitation, or combination of limitations, that is not well-understood, routine, conventional activity in the field, or simply appends well-understood, routine, conventional activities at a high level of generality. 84 Fed. Reg. at 56.

Here, Appellant’s claims do not recite specific limitations (or a combination of limitations) that are not well-understood, routine, and conventional. As discussed above, presenting or receiving information (including retrieving information from a log) merely requires the well understood function of a computer/computer network. *See buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (“That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.”). In addition, the claims (*see, e.g.*, claim 28) recite generic computer components at a high level of generality (“one or more computers and one or more storage devices”). Generic computer components fail to provide an inventive concept to an otherwise abstract idea. *See Alice*, 573 U.S. at 226 at 2360 (“Nearly every computer will include a ‘communications controller’ and a ‘data storage unit’ capable of performing the basic calculation, storage, and transmission functions required by the method claims.”); *Mortgage Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (generic computer components, such as an “interface,” “network,” and “database,” fail to satisfy the inventive concept requirement); *see also I/P Engine, Inc. v. AOL Inc.*, 576 F. App’x 982, 986 (Fed. Cir. 2014) (“search engines, content-

based filtering, and collaborative filtering were all well-known in the art”). Moreover, we note Appellant describes the various components at a generic, high level. *See* Spec. ¶¶ 33, 140–147.

For the reasons discussed *supra*, we are unpersuaded of Examiner error. Accordingly, we sustain the Examiner’s rejection under 35 U.S.C. § 101 of claims 21, 23–28, 30–35, and 37–40. *See* 37 C.F.R. § 41.37(c)(1)(iv).

DECISION

Claims Rejected	Basis	Affirmed	Reversed
21, 23–28, 30–35, and 37–40	35 U.S.C. § 101	21, 23–28, 30–35, and 37–40	
Overall Outcome		21, 23–28, 30–35, and 37–40	

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136a).

AFFIRMED