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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte WENDELL HICKEN, and JOSHUA MELICK[1]

Appeal 2017-001588
Application 12/965,773
Technology Center 3600

Before, JOHNNY A. KUMAR, JENNIFER S. BISK, and TERRENCE W. McMILLIN,

KUMAR, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1–14 and 17–20. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Exemplary Claim

1. A method, comprising:

logging, via a server system, performance data regarding user interactions with a plurality of advertisements, each of the plurality of advertisements relating to a respective one of a plurality of advertisers;

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[1]According to Appellants, YellowPages.com LLC is the real party of interest in this application. *See* App. Br. 2.

determining, by the server system, a respective performance metric for each advertiser of the plurality of advertisers based at least in part on the performance data for the respective advertisements relating to the respective advertiser over a past time period;

assigning, by the server system, a respective budget weighting value, which corresponds to a modifier to modify one or more weights of advertisements, to each advertiser of the plurality of advertisers using the respective performance metric for the respective advertiser, wherein the respective budget weight value assigned to the respective advertiser is based at least in part on comparing the respective performance metric corresponding to the past time period for the respective advertiser to a targeted performance for the respective advertiser;

processing a call received by the server system via an application programming interface from a server of a publisher, the call corresponding to an advertisement request;

retrieving candidate advertisements from at least one advertisement database of the server system to create an advertisement candidate pool, the candidate advertisements comprising a first advertisement corresponding to a first advertiser of the plurality of advertisers and a second advertisement corresponding to a second advertiser of the plurality of advertisers;

based at least in part on comparing a first performance metric for the first advertiser to a first target performance, storing by the server system a first budget weighting value and an association of the first budget weighting value with the first advertiser and the first advertisement corresponding to the first advertiser;

based at least in part on comparing a second performance metric for the second advertiser to a second target performance, storing by the server system a second budget weighting value and an association of the second budget weighting value with the second advertiser and the second advertisement corresponding to the second advertiser;

assigning, by the server system, respective weights to the candidate advertisements according to one or more factors so that the candidate advertisements are ranked to correspond to a first ranked order;

modifying, by the server system, the respective weights of at least some of the candidate advertisements, the modifying the respective weights comprising:

modifying a first weight of the first advertisement corresponding to the first advertiser using the first budget weighting value to result in at least a first modified weight, and modifying a second weight of the second advertisement corresponding to the second advertiser using the second budget weighting value to result in at least a second modified weight;

ranking, by the server system, the candidate advertisements such that the candidate advertisements are in a second ranked order based at least in part on the first modified weight based on the first budget weighting value and the second modified weight based on the second budget weighting value, the second ranked order being different from the first ranked order;

selecting one or more of the candidate advertisements according to the second ranked order for presentation to a user to via a media channel; and

transmitting the selected one or more of the candidate advertisements in reply to the call from the server of the publisher.

Rejections

Claims 1–14 and 17–20 are 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

Claims 1–5, 11–13, 15, 17, 19, and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Li et al., (US 2011/0196733 Al, pub.

Aug. 11, 2011) in view of Yonezaki et al., (US 2011/0125573 Al, pub. May 26, 2011) further in view of Axe et al., (US 8,370,197 B2, issued Feb. 05. 2013). Final Act. 3.

Claims 14 and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Li et al., (US 2011/0196733 Al) in view of Yonezaki et al., (US 2011/0125573 Al, pub. May 26, 2011) in view of Axe et al. (US 8,370,197 B2) and further in view of Official Notice. Final Act. 7.

Claims 6–9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Li in view of Yonezaki et al., (US 2011/0125573 Al) in view of Axe et al. (US 8,370,197 B2) and further in view of Kidder et al., (US 2008/0270164 Al, pub. Oct. 30, 2008). Final Act. 8.

Claim 9 is rejected under 35 U.S.C. §103(a)as being unpatentable over Li et al., (US 20110196733 Al) in view of Yonezaki et al., (US 2011/0125573 Al) in view of Axe et al., (US 8,370,197 B2) further in view of Torigoe et al., (US 2010/0250361 Al, pub. Sept. 30, 2010). Final Act. 9

Issues on Appeal

Did the Examiner err in rejecting claims 1–14 and 17–20 under 35 U.S.C. § 101, as being directed to patent-ineligible subject matter?

Did the Examiner err in rejecting claims 1–14 and 17–20 under pre-AIA 35 U.S.C. § 103(a), as being obvious over the cited combinations of references?

Grouping of Claims

Based on Appellants' arguments (App. Br. 13–27), we decide the appeal on the basis of representative claim 1.

ANALYSIS

We have considered all of Appellants' arguments and any evidence presented. We disagree with Appellants' arguments and we adopt as our own the findings, legal conclusions, and explanations, as set forth in the Answer (11–15) and Advisory Action (2) in response to Appellants' arguments. (App. Br. 13–27; Reply Br. 2–15). We highlight and address specific findings and arguments for emphasis in our analysis below.

Rejection of Claims 1–14 and 17–20 under 35 U.S.C. § 101

In *Alice Corp. Pty. Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014), the Supreme Court has set forth an analytical "framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Alice*, 134 S. Ct. at 2355 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 71–73 (2012)). In the first step of the *Alice/Mayo* analysis, we determine whether the claims at issue are "directed to" a judicial exception, such as an abstract idea. *Alice*, 134 S. Ct. at 2355. If not, the inquiry ends. *Thales Visionix Inc. v. U.S.*, 850 F.3d 1343, 1346 (Fed. Cir. 2017); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1339 (Fed. Cir. 2016). If the claims are determined to be directed to an abstract idea, then we consider under the second step of the *Alice/Mayo* analysis the elements of the claims "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." *Alice*, 134 S. Ct. at 2355 (citing *Mayo*, 566 U.S. at 79, 78). In other words, the second step is to "search for an 'inventive concept'—*i.e.*, 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.'" *Id.* (citing *Mayo*, 566 U.S. at 72–73).

In rejecting claims 1–14, and 17–20 the Examiner determines (1) the claims are directed to the abstract idea of selecting advertisement for database(s) and sending the advertisement upon request for an advertisement. (i.e., a fundamental economic practice) (Advisory Act. 2) and that (2) the additional elements in the claim 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. 2–3).

The Examiner further finds:

> the claims only recite a server (server system) to perform the claimed steps of logging data, determining metric, assigning value, processing a request (call), retrieving advertisements, modifying value, ranking and selecting advertisements, and transmitting advertisements to publisher.

Ans. 14.

Appellants argue the Examiner has failed to establish a *prima facie* case of patent-ineligibility under § 101 because there is no evidence to support the Examiner's findings that the claims are directed to a patent-ineligible abstract idea. Reply Br. 3–5.

Appellants' argument is not persuasive because patent eligibility is a question of law. *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012). We are aware of no controlling authority that requires the Office to provide factual evidence to support a finding that a claim is directed to an

abstract idea.[2] The Federal Circuit has repeatedly noted that "the prima facie case is merely a procedural device that enables an appropriate shift of the burden of production." *Hyatt v. Dudas*, 492 F.3d 1365, 1369 (Fed. Cir. 2007) (citing *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992)). The court has held that the USPTO carries its procedural burden of establishing a prima facie case when its rejection satisfies the requirements of 35 U.S.C. § 132 by notifying the applicant of the reasons for rejection, "together with such information and references as may be useful in judging of the propriety of continuing the prosecution of [the] application." *In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011). Thus, all that is required of the Office is that it set forth the statutory basis of the rejection in a sufficiently articulate and informative manner as to meet the notice requirement of § 132. *Id.*, *see also Chester v. Miller*, 906 F.2d 1574, 1578 (Fed. Cir. 1990) (Section 132 "is violated when [t]he rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection.").

Appellants argue the claims do not contain an abstract idea because the claims are not directed solely to a mathematical relationship or mathematical formula. Reply Br. 8–9. In particular, Appellants contend the claims are directed "to a unique approach for ranking and selecting a particular advertisement for transmission and display" *Id.*

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[2] *Berkheimer v. HP Inc.*, 881 F.3d, 1360 (Fed. Cir. 2018), holds that the question of whether certain claim limitations represent well-understood, routine, conventional activity may raise a disputed factual issue. That question, however, is not at issue in this case. As in *Berkheimer*, in determining that the claims are directed to an abstract idea, the Examiner compared the claims to claims held to be abstract in prior judicial decisions. *Compare* Final Act. 2 *with Berkheimer*, 881 F.3d at 1366–67.

Appellants' argument is not persuasive. The title of Appellants' Specification provides the invention is directed to "SELECTING AND RANKING ADVERTISEMENTS FROM ONE OR MORE DATABASES USING ADVERTISER BUDGET INFORMATION." The Specification further provides embodiments for selecting one or more advertisements from one or more databases for sending at least one advertisement to a publisher. Spec. ¶ 1. Thus, we agree with the Examiner (*see* Advisory Act. 2) that the claim is directed to the abstract idea of selecting advertisements, which is a fundamental economic practice.

Appellants contend

> the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks: digitally advertising over a network in response to real time user interactions, because the claimed invention is similar to the claims of *DDR* and "specify how interactions with the Internet are manipulated to yield a desired result.

Reply Br. 14–15 (citing *DDR Holdings, LLC, v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014)).

We are unpersuaded as Appellants have not demonstrated their claimed generic "server system" is able to perform *functions that are not merely generic*, as were the claims in *DDR*. *See DDR*, 773 F.3d at 1256–58 (holding the claims at issue patent eligible because "they do not broadly and generically claim 'use of the Internet' to perform an abstract business practice (with insignificant added activity)," and "specify how interactions with the Internet are manipulated to yield a desired result—a result that overrides the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink.").

Rather, Appellants' claim 1 merely recites generic steps of logging data, determining metric, assigning value, processing a request (call), retrieving advertisements, modifying value, ranking and selecting advertisements, and transmitting advertisements to publisher. Such data manipulation steps are abstract ideas similar to data manipulation techniques identified in *Cyberfone*, *SmartGene*, *Digitech*, *Content Extraction*, and *Electric Power Group*. Final Act. 3; *see SmartGene, Inc. v. Advanced Biological Labs., SA*, 852 F. Supp. 2d 42 (D.D.C. 2012), *aff'd* 555 F. App'x 950 (Fed. Cir. 2014); *Cyberfone*, 558 F. App'x at 988, 992; *Digitech*, 758 F.3d at 1344, 1351 (employing mathematical algorithms to manipulate existing information); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1347–48 (Fed. Cir. 2014) (finding that "[t]he concept of data collection, recognition, and storage is undisputedly well-known," and "humans have always performed these functions"); *Electric Power Grp., 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"); *see also Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015) (tailoring information presented to a user based on particular information).

Claim 1 also does not recite a specific improvement to the way computers operate, or an improvement in the technical functioning of computer networks. In fact, none of the steps and elements recited in Appellants' claims provide, and nowhere in Appellants' Specification can we find, any description or explanation as to how the claimed steps of

logging data, determining metric, assigning value, processing a request (call), retrieving advertisements, modifying value, ranking and selecting advertisements, and transmitting advertisements to publisher are intended to provide: (1) a "solution . . . necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks," as explained by the Federal Circuit in *DDR Holdings*, 773 F.3d at 1257; (2) "a specific improvement to the way computers operate," as explained in *Enfish*, 822 F.3d at 1336; or (3) an "unconventional technological solution . . . to a technological problem" that "improve[s] the performance of the system itself," as explained in *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1300, 1302 (Fed. Cir. 2016).

Further, with respect to Appellants' preemption argument (that the claimed invention does not pre-empt all applications of presenting advertisements, *see* App. Br. 23), we note the *McRO* court explicitly "recognized that 'the absence of complete preemption does not demonstrate patent eligibility.'" *See McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299, 1315 (Fed. Cir. 2016) (quoting *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015)).

Accordingly, we agree with the Examiner that claims 1–14 and 17–20 are directed to an abstract idea and amount to nothing more than an attempt to patent the abstract idea embodied in the steps of the claims. *See Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 78).

Because we agree with the Examiner's analysis and find Appellants' arguments insufficient to show error, we sustain the rejection of claims 1–14 and 17–20 under 35 U.S.C. § 101.

Prior Art Rejections under 35 U.S.C. § 103(a)[3]

Independent claim 1 recites,[4] *inter alia*,

> processing a call received by the server system via an application programming interface from a server of a publisher, the call corresponding to an advertisement request;
> . . .
> based at least in part on comparing a first performance metric for the first advertiser to a first target performance, storing by the server system a first budget weighting value and an association of the first budget weighting value with the first advertiser and the first advertisement corresponding to the first advertiser [;]
> based at least in part on comparing a second performance metric for the second advertiser to a second target performance, storing by the server system a second budget weighting value and an association of the second budget weighting value with the second advertiser and the second advertisement corresponding to the second advertiser.

(Claim Appendix, pages 29 and 30, hereinafter "the disputed limitations").

The Examiner has identified the relevant portions of Li, Yonezaki, and Axe and has provided sufficient explanation with corresponding citations to various parts of the references for teaching the disputed limitations. Final Act. 3–6.

In particular, the Examiner finds, and we agree:

> Yonezaki teaches known advertisement allocators place advertisements based on a *performance of the advertisement* ... such known advertisement allocators do not account for a campaign budgets ... accordingly a need exists for allocating advertisements *based on performance and the budget allotted*

[3] Appellants did not provide separate arguments for dependent claims 2–14 and 17–20. App. Br. 15–21.
[4] Claims 19 and 20 recite similar subject matter. Claim Appendix, pages 39 and 42.

> **to the campaign ...** (see [0003]) ... teaches a budget module for calculating and/or *determining a budget score for an advertisement campaign ... the budget score can be based on a number of advertisement units in a campaign budget ... number of impressions, number of clicks, conversion rate ... included in the budget* (for each advertiser) (see [0034]-[0037]) ... if the budget score is greater than a threshold, there is a large number of advertisement units remaining in the budget and/or a small number of possible placements for the advertisements of a campaign without much time left to spend the budget ... advertisements are placed ... having a performance less than the second threshold in order to spend the budget prior to the time to spend the budget elapsing (see [0078]-[0083].

Ans. 12 (emphasis in original).

Regarding Appellants' contentions about the claimed "processing a call" (App. Br. 19–21), the Examiner finds, and we agree that "in light of Appellants' Specification 'processing a call received by the sever system . . . from a server of a publisher, the call corresponding to an advertisement request' is characterized as 'processing an ad request received by the server form a publisher'.'" Ans. 13.

We agree with the Examiner's findings because "In the patentability context, claims are to be given their broadest reasonable interpretations . . . limitations are not to be read into the claims from the specification." *In re Van Geuns,* 988 F.2d 1181, 1184 (Fed. Cir. 1993) (citations omitted). Any special meaning assigned to a term "must be sufficiently clear in the specification that any departure from common usage would be so understood by a person of experience in the field of the invention." *Multiform Desiccants, Inc. v. Medzam, Ltd.,* 133 F.3d 1473, 1477 (Fed. Cir. 1998); *see also Helmsderfer v. Bobrick Washroom Equip., Inc.,* 527 F.3d 1379, 1381 (Fed. Cir. 2008) ("A patentee may act as its own lexicographer and assign to

a term a unique definition that is different from its ordinary and customary meaning; however, a patentee must clearly express that intent in the written description."). Absent an express "intent to impart a novel meaning to a claim term[s], the words are presumed to take on the ordinary and customary meanings attributed to them by those of ordinary skill in the art." *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 (Fed. Cir. 2003) (citation omitted).

The Examiner, giving the claim its broadest reasonable interpretation consistent with the Specification, has properly found that the disputed limitations reads upon the combined teachings of Li, Yonezaki, and Axe, as explained on pages 3 through 6 of the Final Action.

We have considered Appellants' Reply Brief but we observe that the Appellants did not rebut the Examiner's prior art findings and responses to Appellants' arguments. Therefore, in the absence of persuasive rebuttal evidence or argument to persuade us otherwise, we adopt the Examiner's findings and underlying reasoning, which are incorporated herein by reference.

It follows that Appellants have not shown error in the Examiner's rejection of independent claims 1, 19, and 20. Thus, we sustain the rejection of claims 1–14 and 17–20 under 35 U.S.C. § 103.

DECISION

We affirm the Examiner's rejection of claims 1–14 and 17–20 under 35 U.S.C. § 101.

We affirm the Examiner's § 103(a) rejections of claims 1–14 and 17–20.

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). *See* 37 C.F.R. § 41.50(f).

AFFIRMED