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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte YOSHINORI KURATA, JUNICHIRO TSUJI, HIROSHI NAKAYAMA, SHOUICHI DOI, and MASAHIRO MORITA

Appeal 2017-000215¹ Application 13/107,468² Technology Center 3600

Before BRUCE T. WIEDER, BRADLEY B. BAYAT, and TARA L. HUTCHINGS, *Administrative Patent Judges*.

BAYAT, Administrative Patent Judge.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1–8 and 10–13.³ We have jurisdiction under 35 U.S.C. § 6(b).

SUMMARY OF DECISION

We AFFIRM.

¹ Our Decision references Appellants' Appeal Brief ("Br.," filed Jan. 29, 2016), the Examiner's Answer ("Ans.," mailed July 28, 2016) and the Final Office Action ("Final Act.," mailed Nov. 27, 2015).

² Appellants identify "Sony Corporation" as the real party in interest. Br. 1.

³ Claim 9 is withdrawn from consideration. *Id.* at 29 (Claims App'x).

THE INVENTION

Appellants' "invention relates to a coupon selection support apparatus, a coupon selection support system, a coupon selection support method, and a program." Spec. 1. Independent claim 7, reproduced below with bracketed notations and added formatting, is illustrative of the subject matter on appeal and recites:

- 7: A coupon selection support method comprising:
- [(a)] acquiring commercial product information associated with commercial products subject to a coupon;
- [(b)] analyzing, by processing circuitry, the commercial products subject to a coupon on the basis of the acquired commercial product information to relate coupons of the commercial products having associated commercial product information with each other,

wherein analyzing the commercial products includes associating each of the commercial products with at least one of a plurality of product classifications;

acquiring a coupon usage log of a user;

- [(c)] analyzing a purchase timing of a certain commercial product of the commercial products purchased by the user in the past on the basis of a usage log acquired at the usage log acquisition step;
- [(d)] predicting a next purchase timing of said certain commercial product, based on the analyzed purchase timing;

- [(e)] determining the product classification which the user prefers based on the coupon usage log of the user, the product classification indicating a grade of the certain commercial product; and
- [(f)] preferentially presenting, via Internet in a form of data, based on the determined product classification which the user prefers, at said next purchase timing, a certain coupon for said certain commercial product and coupons with the determined product classification which the user prefers and related by the processing circuitry to the certain coupon.

Br. 27–28 (Claims Appendix).

THE REJECTIONS

Claims 1–8 and 10–13 are rejected under 35 U.S.C. § 101 as directed to an abstract idea without significantly more.

Claims 1–8 and 10 are rejected under 35 U.S.C. § 103 as being unpatentable over Rapoport (US 2009/0031209 A1, pub. Jan. 29, 2009) and Deaton (US 6,684,195 B1, iss. Jan. 27, 2004).⁴

Claims 11–13 are rejected under 35 U.S.C. § 103 as being unpatentable over Rapoport, Deaton, and Turner (US 2005/0173522 A1, pub. Aug. 11, 2005).

⁴ We treat the Examiner's inadvertent exclusion of claim 10 in the statement of the rejection as harmless error because claim 10 is subsequently rejected in the body of the rejection. *See* Final Act. 9.

ANALYSIS

Non-Statutory Subject Matter Rejection

At the outset, we note that Appellants argued the Examiner's § 101 rejection of claims 1–8 and 10–13 as a group. *See* Br. 12–19. We select independent claim 7 as the representative claim for this group, and, thus, claims 1–6, 8, and 10–13 stand or fall with claim 7. *See* 37 C.F.R. § 41.37(c)(1)(iv).

In determining whether claim 7 is drawn to patent-ineligible subject matter, the Examiner applied the now common two-step test introduced in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289 (2012) and further explained by the Supreme Court in *Alice Corp. Pty. Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014). The first step in that analysis is to determine whether the claim at issue is directed to a patent-ineligible concept such as an abstract idea. *Alice*, 134 S. Ct. at 2355. If so, the inquiry proceeds to step two to look at the claim for "something more" by "examin[ing] 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." *Id.* at 2354, 2357 (quoting *Mayo*, 132 S. Ct. at 1294, 1298). This inventive concept must do more than simply recite "well-understood, routine, conventional activity." *Mayo*, 132 S. Ct. at 1298.

Under the first step of that analysis, the Examiner determined that the claims "are directed to the abstract idea of analyzing commercial products subject to a coupon on the basis of acquired commercial product information to relate coupons of the commercial products having associated commercial product information with each other . . ." Final Act. 2–3. The Examiner

additionally determined that the process steps recite an abstract idea because they can be performed mentally and/or with a pen and paper, "and therefore the above process is an idea 'of itself,' and consequently merely an abstract idea." *Id.* at 3; *see also* Ans.4 (citing *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366 (Fed. Cir. 2011)).

Appellants argue that the claims are not directed to a judicial exception because they are not directed to any abstract idea identified by the Supreme Court in *Alice*, e.g., "fundamental economic practices, certain methods of organizing human activities, ideas, and mathematical relationships or formulas." Br. 12–13. This argument is not persuasive because the Examiner identifies the abstract idea as an "idea 'of itself'" and cites *CyberSource* in support of that determination. *See supra*.

"The 'abstract idea' step of the inquiry calls upon us to 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. v. DirectTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016 (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016)); *see also Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016). Although there is no definitive rule to determine what constitutes an "abstract idea," the Federal Circuit has explained that "both [it] and the Supreme Court have found it sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases." *Enfish*, 822 F.3d at 1334. Contrary to Appellants' contention that the claimed features need to "have been explicitly identified as abstract ideas" (Br. 13), "the decisional mechanism courts now apply is to

examine earlier cases in which a *similar or parallel* descriptive nature can be seen — what prior cases were about, and which way they were decided." *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016) (emphasis added). Thus, we agree with the Examiner that "there is no requirement for an Examiner to only reject claims to abstract ideas 'that have been explicitly identified as abstract ideas' by the courts." Ans. 5.

To that end, we note the similarity between the steps recited in claim 7 and the claims before the Federal Circuit in *Electric Power*. There, the court held that the claims were directed to a combination of abstract ideas, explaining that "[t]he advance they purport to make is a process of gathering and analyzing information of a specified content, then displaying the results, and not any particular assertedly inventive technology for performing those functions." *Elec. Power Grp.*, 830 F.3d at 1354 ("we have treated 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.").

As in *Electric Power*, the focus of the claim here is not on "an improvement in computers as tools, but on certain independently abstract ideas that use computers as tools." *Id.* The steps of "acquiring" (collecting information), "analyzing," "predicting" (identifying from past purchases), "determining," and "presenting" (displaying), taken individually are themselves directed to an abstract idea. *See Elec. Power Grp.*, 830 F.3d at 1343 (When "the focus of the asserted claims" is "on collecting information, analyzing it, and displaying certain results of the collection and analysis," the claims are directed to an abstract idea.). Merely combining these

abstract ideas as claimed does not render the combination any less abstract. *Cf. Shortridge v. Found. Constr. Payroll Serv., LLC*, No. 14-CV-04850-JCS, 2015 WL 1739256 (N.D. Cal. Apr. 14, 2015), *aff'd*, 655 F. App'x 848 (Fed. Cir. 2016). The steps are abstract ideas because, for example, they could be performed through human intelligence alone. "[A]pplication of [only] human intelligence to the solution of practical problems is no more than a claim to a fundamental principle." *In re Bilski*, 545 F.3d 943, 965 (Fed. Cir. 2008) (en banc), *aff'd*, 130 S. Ct. 3218 (2010) (quotation marks omitted).

Looking at the steps recited in claim 7, steps (a), (c), (d), and (e) are not attached to any device, and as the Examiner determined, can reasonably be practiced by human intelligence alone or by pen and paper. *See* Ans. 5–6. Step (b) is the only step attached to a device and the only step that could be argued as being difficult to perform mentally. But the device that performs "analyzing" step (b) is recited in the claim simply as "processing circuitry," a well-known generic computer element. Adding such an element to a step that could otherwise be performed mentally does little to transform the step's abstract character. *See Bancorp Services LLC v. Sun Life Assurance Co. of Canada*, 687 F.3d 1266, 1279 (Fed. Cir. 2012) ("the computer simply performs more efficiently what could otherwise be accomplished manually").

For example, Appellants' disclosure describes a coupon database that "stores four types of coupons (coupon IDs=0001, 0002, 0003, and 0004) with shampoos as the coupon subject commercial product." Spec. 24. The recited "analyzing, by processing circuitry, the commercial products..." step of claim 7 is described as:

analyzing the character strings included in the commercial product names can sort the commercial products having coupon IDs=0001, 0002, 0003, and 0004 in a series called "shampoo" from a common character string. From this analysis result, the coupon analysis module 104 sorts coupon IDs=0001, 0002, 0003, and 0004 into a series called "shampoo."

Id. Appellants, thus, describe this process of "analyzing" as comparing and sorting information and displaying the results, without "any particular assertedly inventive technology for performing those functions . . . [which the court has held to be] directed to an abstract idea." Elec. Power Grp., 830 F.3d at 1354. See Intellectual Ventures I LLC v. Capital One Fin.

Corp., 850 F.3d 1332, 1340–41 (Fed. Cir. 2017) (organizing, displaying, and manipulating data encoded for human and machine-readability is directed to an abstract concept); see also Intellectual Ventures I LLC v. Erie Indemnity Company, 850 F.3d 1315, 1328 (Fed. Cir. 2017) ("creating and using an index to search for and retrieve data . . . an abstract concept.").

We disagree with Appellants' contention that this case is similar to *DDR Holdings*, *LLC v. Hotels.com*, *L.P.*, 773 F.3d 1245 (Fed. Cir. 2014) because "the claims are rooted in computer technology, and address issues associated with presenting coupons via Internet." Br. 15–16. We see no parallel between the present claims and those in *DDR Holdings*. In *DDR Holdings*, the Federal Circuit determined that, although the patent claims at issue involved conventional computers and the Internet, the claims addressed the problem of retaining website visitors who, if adhering to the routine, conventional functioning of Internet hyperlink protocol, would be transported instantly away from a host's website after "clicking" on an advertisement and activating a hyperlink. *DDR Holdings*, 773 F.3d at 1257.

The court, thus, held that the claims were drawn to patent-eligible subject matter because they claim a solution "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks." *Id.*

No such technological advance is evident in the present invention. Unlike the situation in *DDR Holdings*, Appellants do not identify any problem particular to computer networks and/or the Internet that claim 7 allegedly overcomes. *See* Ans. 6. In other words, the claimed invention in *DDR Holdings* did not merely use the Internet but rather changed how interactions on the Internet operated. Instead, Appellants' coupon management process of claim 7 merely employs a generic computing element to perform the generic computer functions of analyzing and of presenting (a coupon) via the Internet. Contrary to Appellants' argument, the solution here is not rooted in computer technology. Rather, the solution here is rooted in presenting desired coupons to users, a business solution. Spec. 36 ("the user checks the display list shown on the display section of the user terminal 40 for desired coupons.").

Although computer implementation may make the coupon management process convenient, more accurate or more efficient (Br. 16 ("the time and labor for using coupons are reduced, thereby significantly enhancing user convenience."), that does not make the claimed invention any less abstract. "[R]elying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible." *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015).

Furthermore, Appellants' allegation that "the present claims enable a reduction of network traffic load and thus increasing the speed of network communication via Internet by not transmitting to a user, via Internet, unrelated coupons . . . and inextricably tied to computer network technology" (Br. 16 (emphasis omitted)) is unpersuasive because merely presenting the results of abstract processes of collecting and analyzing information, without more, is abstract as an ancillary part of such collection and analysis. See Elec. Power Grp., 830 F.3d at 1354. Indeed, we find that the only recitation in the claims related to computer networks is "preferentially presenting, via Internet . . . a certain coupon" (see Br., Claims App.), which merely recites the display function in general terms (i.e., via Internet) and the only technical means of performing that function by generic processing circuitry. Appellants do not point us to any claim language in light of the Specification to support their allegation. See Ans. 8 ("Appellants reach a conclusion regarding the benefits of the present claims, but have not provided any evidence to support their conclusion."). See also Intellectual Ventures I LLC v. Symantec Corp., 838 F.3d 1307, 1322 (Fed. Cir. 2016) ("The district court erred in relying on technological details set forth in the patent's specification and not set forth in the claims to find an inventive concept."); Berkheimer v. HP Inc., 881 F.3d 1360, 1369 (Fed. Cir. 2018) ("[Claim 1] does not recite any of the purportedly unconventional activities disclosed in the specification."). In short, Appellants have not persuasively shown that the claimed invention provides any technological improvement to the functioning of any computing network.

Turning to the second step in *Alice*, we agree with the Examiner and conclude that claim 7 does not contain an inventive concept sufficient to "transform the nature of the claim' into a patent-eligible application." *Alice*, 134 S. Ct. at 2355 (citation omitted). The introduction of "computer circuitry" into the claim does not alter the analysis here. The claim here does no more than simply instruct the practitioner to implement the abstract idea on a generic computer. In fact, the only portion of claim 7 that could be considered "technological" lies in process step (b), which is inadequate to confer subject matter eligibility. *See Elec. Power Grp.*, 830 F.3d at 1355 ("Nothing in the claims, understood in light of the specification, requires anything other than off-the-shelf, conventional computer, network, and display technology for gathering, sending, and presenting the desired information"); *see also Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333

Alice, 134 S. Ct. at 2358 (citations omitted).

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⁵ [T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea "while adding the words 'apply it" is not enough for patent eligibility. Nor is limiting the use of an abstract idea "to a particular technological environment." Stating an abstract idea while adding the words "apply it with a computer" simply combines those two steps, with the same deficient result. Thus, if a patent's recitation of a computer amounts to a mere instruction to "implemen[t]" an abstract idea "on . . . a computer," that addition cannot impart patent eligibility. This conclusion accords with the pre-emption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of "additional featur[e]" that provides any "practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself."

(Fed. Cir. 2012) ("Simply adding a 'computer aided' limitation to a claim covering an abstract concept, without more, is insufficient to render [a] claim patent eligible") (citation omitted).

Appellants contend that "even if the present claims are interpreted to be directed to an abstract idea . . . the present claims recite significantly more than merely an abstract idea." Br. 17. In support of this argument, Appellants merely reproduce the claim language, indicate that there is no mention of the claimed features in the July 2015 Update, and assert that "the claimed features are recited with specificity and are not 'claimed in a merely generic manner." Id. at 18. But repeating the claim language fails to advance Appellants' position by apprising us of error by the Examiner. Moreover, "the fact that the present claims patentably distinguish over the applied references . . . is [not] evidence that the claims recite features that amount to significantly more than merely the abstract idea." See Br. 19. Actually, a finding that the claims may be novel and nonobvious does not conflict with a finding of ineligible subject matter, because "a claim for a new abstract idea is still an abstract idea." Synopsys, Inc. v. Mentor Graphics Corp., 839 F.3d 1138, 1151 (Fed. Cir. 2016) (citing Mayo, 566 U.S. at 90). Even if the claimed concept is "[g]roundbreaking, innovative, or even brilliant" does not by "itself satisfy the § 101 inquiry." Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 133 S. Ct. 2107, 2117 (2013). The question in step two of the *Alice* framework is not whether an additional feature is novel, but whether the implementation of the abstract idea involves "more than performance of 'well-understood, routine, [and] conventional activities previously known to the industry." Content

Extraction and Transmission LLC v. Wells Fargo Bank, Nat. Ass'n, 776 F.3d 1343, 1347–48 (Fed. Cir. 2014) (alteration in original) (quoting Alice, 134 S. Ct. at 2359). Indeed, "[t]he 'novelty' of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter." Diehr, 450 U.S. at 188–189.

Accordingly, we are not persuaded for the reasons set forth above that the Examiner erred in rejecting independent claim 7 under 35 U.S.C. § 101. Therefore, we sustain the Examiner's rejection of claim 7, including claims 1–6, 8, and 10–13, which fall with claim 7.

Obviousness Rejections

Claims 1–8 and 10

In contesting the Examiner's obviousness rejection over Rapoport and Deaton, Appellants argue that Deaton, on which the Examiner relies (Final Act. 7 (citing Deaton col. 74, ll. 6–27)) fails to disclose "determin[ing] the product classification which the user prefers based on the coupon usage log of the user," as required by independent claim 1. Br. 21. According to Appellants:

Deaton is understood to determine a related coupon to be generated based on purchase history of a user (e.g., purchase history that a user bought coffee), and not based on "coupon usage log" of the user (e.g., a log that a user used a coupon of coffee). Deaton stores coupon cashing history of a customer, but the coupon cashing history is used to identify a "bargain shopper" and generate incentives at the point of-sale in order to enable the customer to be incented (col. 74, lines 50-62), and not to determine a product classification (indicating a grade of a

certain commercial product) which the customer prefers and preferentially present coupons with the determined product classification.

Id. at 21–22 (emphasis omitted).

In response, "the Examiner finds this argument has been withheld from the Examiner during prosecution (the 2015 November Final Office Action closed prosecution) and has now been presented for the first time to the Patent Trial and Appeal Board." Ans. 13. According to the Examiner, "[o]n this basis alone, the withheld arguments should not be found persuasive by the Board, since such arguments are untimely and contrary to the orderly prosecution of the instant application." *Id.* (citing "*In re Goodman*, 3 USPQ2d 1866, 1872 (Comm'r Pat. 1987)").

We do not agree with the Examiner because the prosecution history shows that Appellants amended the independent claims to include this disputed limitation on October 6, 2015, just prior to the issuance of the Final Office Action on November 27, 2015. Therefore, Appellants could not have had the opportunity to argue any findings made by the Examiner as to this limitation prior to the issuance of the final rejection, and, for that matter, withhold any corresponding arguments.

We also do not agree with "the Examiner['s] conclu[sion] that the 'customer database' of Deaton is reasonably interpreted to read on the claimed 'coupon usage log.'" Ans. 14. Although the Examiner

acknowledges that Deaton's customer database merely logs transaction data⁶ and does not expressly disclose "determining the product classification which the user prefers based on the coupon usage log of the user," the Examiner however reasons that "one of ordinary skill would understand (and/or find it obvious) to store the coupon cashing history in the customer database." Id. (citing Deaton col. 74, 11. 50-62). But we find Deaton's purpose of a coupon cashing history is to store the amount of redemption of coupons by a customer "to identify a 'bargain shopper,' such that incentives may be generated at the point-of-sale in order to enable the customer to be incented." Deaton col. 74, 11. 50-62. There is no suggestion in the relied upon portions of Deaton that the stored coupon cashing history includes any information associated with a particular coupon used by a customer (i.e., grade of the certain commercial product) in order to determine the product classification which the customer prefers, as required by claim 1. The Examiner has the initial duty of supplying the factual basis for the rejection and may not resort to speculation, unfounded assumptions, or hindsight reconstruction to supply deficiencies in its factual basis.

Furthermore, we disagree with the Examiner's alternative reasoning that

one of ordinary skill in the art would find it obvious for the coupon usage history to include product information similar to that in the "shopping history" . . . [and] to determine a product

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⁶ "The customer records also include customer information, such as verification data (such as verification status) as well as other selected transactional data (such as transaction frequency and dollar volume), the verification and transaction data being regularly updated with new data (such as during transaction verification)." Deaton col. 4, ll. 43–46.

classification indicating the grade of the product . . . [because s]uch modification to Deaton would be readily understood by one of ordinary skill in this art and would be a mere matter of design choice.

Ans. 16. There clearly are cases where minor changes in the location and/or orientation of elements to arrive at the claimed invention may be an obvious matter of design choice. For example, "when a patent simply arranges old elements with each performing the same function it had been known to perform and yields no more than one would expect from such an arrangement, the combination is obvious." *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 417 (2007) (citations and emphasis omitted). However, we find this reasoning inapplicable to the subject matter claimed and insufficient to support a conclusion of obviousness under the facts of this case.

Accordingly, we do not sustain the rejection of independent claim 1 as obvious over Rapoport and Deaton, including independent claims 6–8, which recite substantially similar subject matter and are rejected based on the same deficient finding. *See* Final Act. 4–9. For the same reasons, we do not sustain the rejection of claims 2–5 and 10, which depend from claim 1. *Cf. In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992) ("dependent claims are nonobvious if the independent claims from which they depend are nonobvious").

Claims 11–13

Claims 11–13 depend directly or indirectly from independent claim 1, and the Examiner's reliance on Turner does not cure the above discussed

deficiency. Therefore, we do not sustain the rejection of claims 11–13 as obvious over Rapoport, Deaton, and Turner.

DECISION

The rejection of claims 1–8 and 10–13 under 35 U.S.C. § 101 is affirmed.

The rejections of claims 1–8 and 10–13 under 35 U.S.C. § 103 are reversed.

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

AFFIRMED