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BUCKLEY, MASCHOFF & TALWALKAR LLC
50 LOCUST AVENUE
NEW CANAAN, CT 06840

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte Steven Marcus¹

Appeal 2017-003371
Application 12/950,103
Technology Center 3600

Before BRADLEY W. BAUMEISTER, MICHAEL J. ENGLE, and
PHILLIP A. BENNETT, *Administrative Patent Judges*.

BAUMEISTER, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1, 3, 5–12, 15, 16, 26, 29, and 30. App. Br. 2. Claims 2, 4, 13, 14, 15–25, 27, and 28 have been canceled. *Id.* We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

¹ Appellant identifies Mobisave LLC as the real party in interest. Appeal Brief filed June 29, 2016 (“App. Br.”) 2.

THE INVENTION

Appellant describes the present invention as follows:

A proof-of-performance verification system may include a receipt processing facility that receives a receipt image, wherein the receipt processing facility optionally enhances the receipt, converts the receipt image to text, and matches the text to a product or service description in accordance with a terminology database, a proof processor that electronically matches a user-selected reward offer against the product or service description to facilitate offer redemption, and at least one of a payment facility that distributes the offer redemption funds and a rewards facility that communicates incentive rewards to a central location. Related user interfaces, applications, and computer program products are disclosed.

Abstract.

Independent claim 1, reproduced below with modified formatting, illustrates the claimed invention:

1. A proof-of-performance verification system for providing purchase incentives to customers over a computerized telecommunications-based system utilizing electronic transmission of images of paper purchase receipts, the system comprising:

a selected-offers storage facility, storing a plurality of reward offers selected by a registered user of the verification system, each of said selected reward offers being selected at a respective time of selection;

a receipt processing facility that receives a receipt image, the receipt image being an image representing a paper receipt issued to the registered user in a product or service purchase transaction as a record of said transaction, the receipt processing facility being operative to convert the receipt image to a text representation of the receipt image, and to match the text representation of the receipt image to a product or service description maintained in a terminology database, the image having been captured by the registered user via an imaging

facility of a handheld device, the receipt image including a representation of a date and time of the purchase transaction; the receipt processing facility receiving, in association with said receipt image, device-specific information that identifies said handheld device, the device-specific information associated with the registered user; the receipt processing facility identifying said registered user from the device-specific information;

a proof processor that electronically matches one of said stored reward offers selected by the identified registered user against the product or service description to facilitate offer redemption, the proof processor verifying that the date and time of the purchase transaction as represented by the received image is later than the respective time of selection of the matched one of said stored reward offers selected by the identified registered user;

said proof processor informing the identified registered user of all offers matched to the receipt image;

said proof processor receiving an indication from the identified registered user as to at least one selected offer that should have been matched to the receipt image but was not matched to the receipt image, said indication including an identification of a receipt item in the receipt image that should have been matched to one of said at least one selected offer;

said proof processor including a database of images of paper purchase receipts;

at least one of[:]

- a payment facility that distributes the offer redemption funds; and

- a rewards facility that communicates incentive rewards to a central location;

said proof processor further operative to:

- identify a retail store that issued the paper receipt; and

- detect a font and/or printed art element in the paper receipt as represented in the receipt image to ensure validation

against a known font and/or printed art element utilized by the identified retail store.

App. Br. 20–21 (Claims Appendix).

Independent claim 11 recites a computer implemented method of similar scope.

THE REJECTIONS

Claims 1, 3, 5–12, 15, 16, 26, 29, and 30 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 3–5.²

Claims 1, 3, 5–8, 11, 15, 16, 27, 29, and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the following five references:

Hadjigeorgis (US 2002/0152118 A1; published Oct. 17, 2002);

Deatherage (US 2004/0107135 A1; published June 3, 2004);

Chellapilla (US 2004/0181749 A1; published Sept. 16, 2004);

Tumminaro (US 2007/0255653 A1; published Nov. 1, 2007); and

Vawter (US 2008/0035724 A1; published Feb. 14, 2008).

Final Act. 6–32.

Claims 9, 10, and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hadjigeorgis, Deatherage, Chellapilla, Tumminaro,

² Rather than repeat the Examiner’s positions and Appellant’s arguments in their entirety, we refer to the above-mentioned Appeal Brief, as well as the following documents for their respective details: the Final Action mailed February 2, 2016 (“Final Act.”); the Examiner’s Answer mailed November 17, 2016 (“Ans.”); and the Reply Brief filed December 29, 2016 (“Reply Br.”).

Vawter, and Solomon (US 7,120,591 B1; issued Oct. 10, 2006). Final Act. 32–36.

Claim 12 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hadjigeorgis, Deatherage, Chellapilla, Tumminaro, Vawter, and Thompson (US 2002/0103834 A1; published Aug. 1, 2002). Final Act. 36–37.

Claim 26 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hadjigeorgis, Deatherage, Chellapilla, Tumminaro, Vawter, and Kondo (US 2009/0324135 A1; published Dec. 31, 2009). Final Act. 37–38.

We review the appealed rejections for error based upon the issues identified by Appellant, and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential).

THE PATENT-INELIGIBILITY REJECTION

Determinations and Contentions

The Examiner determines that the claims “are directed towards the concept [of] electronic coupon redemption and verification” and that “[c]oupon redemption is [a] fundamental financial principle of debiting and crediting accounts and [is] a simple series of mathematical formulations and/or steps to organiz[e] what a human could do with the same information (human activity).” Final Act. 3. The Examiner further determines that steps of “targeting advertising to an individual . . . is a fundamental economic practice.” *Id.* at 5. The Examiner determines that the steps of retrieving and manipulating data constitute an abstract idea. *Id.* As such, the Examiner determines that the claims are drawn to an abstract idea. *Id.* at 3.

The Examiner additionally determines that the claims do not recite significantly more than an abstract idea “because the claims do not recite an improvement to another technology or technical field, an improvement to the functioning of the computer itself, or meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment.” *Id.* The Examiner determines that the claim limitations are performed by a generically recited computer or processor performing generic computer functions that were well-understood, routine, and conventional activities previously known in the industry. *Id.* at 3–4.

In relation to the final limitation of claim 1, the Examiner reasons that the language “said proof processor further operative to: . . . detect a font and/or printed art element in the paper receipt as represented in the receipt image to ensure validation against a known font and/or printed art element utilized by the identified retail store” (“the printed-art-validation limitation”) is directed to an “abstract idea[] similar to ‘collecting and comparing known information’ (*Classen*) and ‘comparing new and stored information and using rules to identify options’ (*SmartGene*).”³

Appellant argues that the claims are directed to patent-eligible subject matter because the claims are not directed to an abstract idea and because the claims recite significantly more than an abstract idea. App. Br. 9–13; Reply

³ *Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057 (Fed. Cir. 2011) supports the proposition that “methods that simply collect and compare data, without applying the data in a step of the overall method, may fail to traverse the § 101 filter.” *Id.* at 1067. *SmartGene, Inc. v. Advanced Biological Laboratories, SA*, 555 F. App’x 950 (Fed. Cir. 2014) supports the proposition that merely “comparing new and stored information and using rules to identify . . . options” does not save an otherwise abstract claim. *Id.* at 955.

Br. 2–6. For example, Appellant argues “the claims on appeal, in all their complexity, are concerned with practical, tangible improvements in user access to and interaction with a computerized electronic offer redemption system.” Reply Br. 4.

In relation to the printed-art-validation limitation, Appellant argues the invention as recited in claim 1 combats [the] problem [of counterfeited paper receipts] with unconventional steps, namely identifying the retail store that issued the receipt (from [optical character recognition (OCR)] applied to the submitted receipt image), and then identifying a font and/or printed art element in the paper receipt to [e]nsure validation against a known font/art element used by the identified retail store.

App. Br. 12.

Principles of Law

A. SECTION 101

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 Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66 (2012) and *Alice*. 573 U.S. at 217–18 (citing *Mayo*, 566 U.S. at 75–77). 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, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 192 (1981)); “tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores” (*id.* at 184 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1854))); 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 192 (“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 is “directed to” 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 (quotation marks 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.*

B. USPTO SECTION 101 GUIDANCE

The United States Patent and Trademark Office (“USPTO” or “the Office”) recently published revised guidance on the application of § 101. USPTO’s January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance* (“Memorandum” or “Office Guidance”). Under that guidance, we first look to whether the claim recites the following:

- (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human interactions such as a fundamental economic practice, or mental processes); and
- (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)).⁴

⁴ We acknowledge that some of these considerations may be evaluated properly under Step 2 of *Alice* (Step 2B of the Office guidance). Solely for

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.

Analysis

For the sake of argument, we agree with the Examiner that the claims are directed to “electronic coupon redemption and verification,” which reasonably may be characterized as a combination of abstract ideas including fundamental economic practices, commercial and legal interactions, advertising, marketing, and sales activities, and mental processes, such as forming an observation, evaluation, judgment, or opinion. *See RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) (“Adding one abstract idea . . . 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) (patent-ineligible claims were directed to a combination of abstract ideas).

Even so, the Examiner provides insufficient evidence that the claims fail to either sufficiently integrate the abstract idea into a practical application or recite significantly more than an abstract idea. More specifically, the Examiner has not established that the proof processor that

purposes of maintaining consistent treatment within the Office, we evaluate this inquiry under Step 1 of *Alice* (Step 2A of the Office guidance).

performs the printed-art-validation limitation merely is a generically recited computer performing generic computer functions that were well-understood, routine, and conventional activities previously known in the industry.

To be sure, computers that simply collect and compare data, without more, generally do not add significantly more to an abstract idea. *E.g.*, *Classen Immunotherapies*, 659 F.3d at 1067. Moreover, the use of scanners and optical character recognition software was well known at the time of the invention. *See Content Extraction & Transmission LLC v Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1348 (Fed. Cir. 2014) (“[Content Extraction and Transmission] conceded at oral argument that the use of a scanner or other digitizing device to extract data from a document was well-known at the time of filing [in 1991], as was the ability of computers to translate the shapes on a physical page into typeface characters”).

However, claim 1 goes beyond merely comparing input data in a conventional manner or performing scan and OCR operations on a printed receipt. The proof processor of claim 1 first performs scan and OCR operations on a printed receipt, and then analyzes the visual representation of the receipt to authenticate the image against a known font or printed art element to ensure validity. That is, the claimed proof processor does not merely recognize that the printed receipt displays a charge of \$19.95, for example, using conventional OCR technology. The claimed proof processor additionally determines, for example, that the recognized charge of \$19.95 is printed in a font that is unique to or consistent with the font used by a specified retail store. *See, e.g.*, Spec. ¶¶ 46–47.

The Examiner has provided insufficient evidence or reasoning to meet the burden of showing that this claimed functionality does not entail an

improvement to conventional OCR technology beyond the abstract idea. As such, the Examiner has not established that the claim fails to integrate the purported abstract idea into a practical application. Accordingly, we do not sustain the rejection of independent claims 1 and 11 as being directed to patent-ineligible subject matter. We likewise do not sustain that rejection of claims 3, 5–10, 12, 15, 16, 26, 29, and 30, which depend from claims 1 and 11.

THE OBVIOUSNESS REJECTION

Findings and Contentions

The Examiner finds that Hadjigeorgis discloses “[a] proof-of-performance verification system for providing purchase incentives to customers over a computerized telecommunications-based system utilizing electronic transmission of images of paper purchase receipts” (Final Act. 6) (emphasis omitted) and that this system teaches most of the limitations of independent claim 1. *Id.* at 6–13. The Examiner finds that “Hadjigeorgis does not appear to specify checking dates/times for verification,” but that it was well known that coupons and rebates have expiration dates. *Id.* at 13.

The Examiner relies on Deatherage for teaching “a selected-offers storage facility, storing a plurality of reward offers selected by a registered user of the verification system, each of said selected reward offers being selected at a respective time of selection” and that the coupon has to be selected prior to use, as recited in claim 1. *Id.* at 14. The Examiner also relies on Deatherage for teaching notifying users of non-matched offers. *Id.* at 15–17.

The Examiner further finds that Hadjigeorgis and Deatherage do not teach identifying non-matched offers by the consumer. But the Examiner determines that “it [was] old and well known for a consumer to identify on a receipt and bring it to the proper entities[’] attention that a discount was not applied so that the consumer can receive [his or her] discount.” *Id.* at 17–18.

The Examiner relies on Chellapilla for teaching a receipt processing facility that converts the receipt image to text. *Id.* at 18–21. The Examiner relies on Tumminaro for teaching “a handheld device that is a phone and identifying that device by the phone number in the rebate/coupon/payment process.” *Id.* at 21; *see also id.* at 21–22.

The Examiner finds that “Hadjigeorgis does not appear to specify validation of the receipt/transaction via font and/or printed art element,” (*id.* at 22), but relies on Vawter for teaching this feature:

Vawter teaches authenticating the transaction via merchant identifier and/or printed art (watermark) in at least paragraph 0054 where it mentions, “[a]uthentication information 355 may include information related to the authentication, authorization, validation, and/or identification of a user and/or device (e.g., terminal 10, register 140, etc.) in system 100. Authentication information 355 may include a user name, password, personal identification number (PIN), token, secure identification (secure ID) value, certificate, *watermark*, merchant identifier, transaction identifier, code (e.g., a script), etc.”

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the electronic data verification method taught by Hadjigeorgis by validating the transaction/receipt as taught by Vawter in order [to] ensure validation of the transaction.

Id. (emphasis added).

Appellant argues, *inter alia*, that the Examiner errs in relying upon Vawter's teaching of a watermark because

it is apparent from the context that the "watermark" that is mentioned in Vawter is a digital security element, and has nothing to do with a receipt or other piece of paper. Although a paper receipt is shown in FIG. 7B of the reference, the "watermark" passage cited by the Examiner has nothing to do with the paper receipt of FIG. 7B.

App. Br. 15.

Appellant further urges

even if a paper watermark were present in Vawter, that would not be the same as [the claimed] printed art element, because a paper watermark is formed in the fabric of the paper and is not printed! Perhaps it is also worth mentioning that in the rebate system recited in considerable detail in claim 1, it is highly doubtful that the scanned image of a paper receipt would or could reproduce a watermark (if present) in the paper stock on which the paper receipt was printed. Thus even if a paper watermark were an element in Vawter, it would not provide the functionality recited in claim 1 if introduced into the incentive system of claim 1.

Id. at 16.

In response, the Examiner further explains the reasoning underpinning the rejection:

Vawter teaches getting watermark[s] from a document and watermarks are able to be scanned and can be digitized" (Ans. 13) because "watermarks . . . can be printed and would be able to be scanned. Anyone that has read a document with ["Confidential" or "Preliminary"] in the background knows that any copies made will also bear the same watermark, which means the watermark is able to be scanned and therefore can be digitized."

Ans. 11–12.

Appellant replies on this point by again arguing that when read in context, it is clear that paragraph 54 of Vawter discusses a *digital* watermark, and this digital watermark is of no relevance to the claimed “printed art element.” Reply Br. 8.

Analysis

Vawter describes that invention as

[a] managed service [that] include[s] first logic to provide authentication information to a device on behalf of a mobile terminal to identify the mobile terminal for a near field transaction with the device, and receive transaction information from the device, where the transaction information is produced by the device on behalf of the mobile terminal. The first logic may further receive user information via the mobile terminal, the user information identifying characteristics of a user of the mobile terminal.

Vawter, Abstract.

Vawter goes on to describe the invention, as follows:

Techniques described herein may provide entities with accurate information about transactions. For example, a consumer may use a cell phone to establish a secure communication session with a cash register at a store. The cell phone may receive information contained in the cash register receipt via the wireless link, and the cash register may send the transaction information to a server.

Id. ¶ 19.

“Transaction” may refer to an exchange of information between two parties, such as a customer and a retailer. A transaction may include a purchase, an exchange, a credit, request for services, etc. In one implementation, a transaction may include an exchange of monetary information (e.g., electronic money, credit card information, automated teller machine (ATM) information, etc.). In another implementation, a transaction may include an exchange of mined consumer data,

where the consumer data is related to one or more purchasing transactions.

Id. ¶ 23.

In one implementation, server **130** may provide a service, such as a managed service, to other devices in system **100**, such as [mobile] terminal **110** and/or enterprise **150**. For example, server **130** may provide communication services to [mobile] terminal **110**, data mining services to enterprise and/or third party **170**, transaction storage services to enterprise **150** and/or [mobile] terminal **110**, etc.

Id. ¶ 30.

Figure 3 of Vawter depicts authorization information 355 being stored in storage module 350 of Server 130. *Id.* Fig. 3. As noted by the Examiner (Final Act. 22), Vawter describes the authentication information as follows:

Authentication information **355** may include information related to the authentication, authorization, validation, and/or identification of a user and/or device (e.g., terminal [**110**], register **140**, etc.) in system **100**. Authentication information **355** may include a user name, password, personal identification number (PIN), token, secure identification (secure ID) value, certificate, *watermark*, merchant identifier, transaction identifier, code (e.g., a script), etc.

Vawter ¶ 54 (emphasis added).

Read as a whole, we understand Vawter to be storing digital information in the storage module 350. We agree with Appellant that one of ordinary skill would understand Vawter's paragraph 54 as discussing *digital* watermarks for authenticating transmitted digital data. The Examiner does not provide a sufficient basis to support the finding that Vawter transmits images of paper receipts with *visual* watermarks, much less provide support for finding that Vawter detects a visual watermark represented on a paper

receipt image to ensure validation against a known printed art element, as recited by independent claim 1.

We therefore do not sustain the obviousness rejection of claim 1 over Hadjigeorgis, Deatherage, Chellapilla, Tumminaro, and Vawter or that rejection of independent claim 11, which recites similar language. We likewise do not sustain the obviousness rejection of claims 3, 5–8, 15, 16, 27, 29, and 30, which depend from independent claims 1 and 11.

With respect to the remaining rejections of claims 9, 10, 12, 14, and 26, the Examiner does not rely on any of the additionally cited references, Solomon, Thompson, and Kondo, to cure this deficiency. *See* Final Act. 32–38. Accordingly, we do not sustain the obviousness rejections of these claims for the reasons set forth in relation to claim 1.

DECISION

The Examiner's decision rejecting claims 1, 3, 5–12, 15, 16, 26, 29, and 30 is reversed.

REVERSED