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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KATHERINE ANN CORNER

Appeal 2017-011716
Application 13/356,277
Technology Center 3600

Before JASON V. MORGAN, ERIC B. CHEN, and
KARA L. SZPONDOWSKI, *Administrative Patent Judges*.

CHEN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the final rejection of claims 1, 3, 4, 6–8, 10–12, 14, 15, and 17–21. Claims 2, 5, 9, 13, and 16 have been cancelled. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

Appellant's invention relates to managing electronic transactions, such that an applied dynamic amount (e.g., discount) is based on historic transaction data of multiple charge requests of a consumer account. (Abstract.)

Claim 1 is exemplary, with disputed limitations in italics:

1. A computer system for generating dynamic offers, comprising:

a server computer system including:

a processor;

a non-transitory computer-readable medium connected to the processor;

a network interface device connected to the processor; and

a set of instructions on the non-transitory computer-readable medium, the set of instructions being executable by the processor and including:

a data store;

a plurality of respective consumer accounts in the data store, each consumer account having a first consumer account identifier, the consumer accounts including at least first and second consumer accounts;

a transaction processing system that includes an account lookup and debit module (i) generating historic transaction data, the historic transaction data including amounts, for each one of the consumer accounts, including receiving, with the processor, a first charge request over the network interface device, the first charge request including an amount and a second consumer account identifier, identifying, with the processor, a selected one of the consumer accounts by associating one of the first consumer account identifiers with the second consumer account identifier, and processing, with the processor, the first charge request based on an account detail of the selected consumer account, and (ii) storing the historic transaction data in the respective consumer account in the data store such that data store includes the respective consumer account and the respective consumer account includes the respective consumer account identifier and the respective historic transaction data;

a plurality of merchant accounts in the data store, each merchant account having a merchant account identifier;

a merchant account management system generating voucher entry data for one of the merchant accounts, including receiving, with the processor, a voucher entry from a merchant computer system over the network interface device, and storing, with the processor, the voucher entry in the data store in association with the merchant account having the respective merchant account identifier wherein the merchant account management system, with the processor, receives and stores an offer limit;

a dynamic discount amount calculation module dynamically determining a dynamic discount amount associated with the voucher entry and the dynamic discount amount is limited to fall within the offer limit, *the dynamic discount amount being calculated based on at least one of the amounts in the historic transaction data of the first consumer account* and being different for the first consumer account based on the amounts in the historic transaction data of the first consumer account than for the second consumer account based on the amount in the historic transaction data of the second consumer account;

a push module associating, with the processor, the voucher entry with the first consumer account identifier of the first consumer account, the voucher entry including the dynamic discount amount calculated for the first consumer account such that data store includes the respective consumer account and the respective consumer account includes the respective consumer account identifier, the respective historic transaction data, and the respective voucher entry including the dynamic discount amount calculated based on the respective historic transaction data; and

a voucher redemption system identifying a selected one of the voucher entries, the transaction processing system processing a transaction, including receiving, with the processor, a second charge request over the network interface device, the second charge request including a first amount and a second consumer account identifier, identifying, with the processor, a selected one of the consumer accounts by

> associating one of the first consumer account identifiers with the second consumer account identifier, and
>
> processing, with the processor, the second charge request based on the dynamic discount amount of the selected consumer account, wherein the transaction processing system includes an account lookup and debit module that adjusts the first amount to a second amount that is less than the first amount based on the dynamic discount amount of the selected voucher entry calculated for the respective consumer account, and processes the second amount based on the account detail of the selected consumer account.

Claims 1, 3, 4, 6–8, 10–12, 14, 15, and 17–21 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter.

Claims 1, 4, 6–8, 10–12, 15, and 17–21 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Arthur (US 2008/0208762 A1; Aug. 28, 2008), Fordyce (US 2011/0093327 A1; Apr. 21, 2011), and Bemmel (US 2008/0097851 A1; Apr. 24, 2008).

Claims 3 and 14 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Arthur, Fordyce, Bemmel, and Nakashima (US 2005/0033675 A1; Feb. 10, 2005).

ANALYSIS

§ 101 Rejection

We are persuaded by Appellant's arguments (Br. 21) that the Examiner has not satisfied the proper burden for making a prima facie case for patent ineligibility under 35 U.S.C. § 101.

With respect to independent claims 1 and 12, the Examiner determined the claims are directed to "generating dynamic offers," including "the abstract concepts of a fundamental economic practice based on

processing financial transactions and collecting, comparing and storing data," as in *Electric Power Group*. (Final Act. 4–5; *see also* Ans. 18.) The Examiner further determined:

> The step of generating historic transaction data for consumer accounts data gathering activity as well as collecting and comparing data as in *Classen* (e.g. receiving a charge request and associating account identifiers). The step of generating merchant offer data, receiving a voucher entry and storing in associating with a merchant account is data gathering and storage activity. The step of dynamically determining a discount amount associated with a voucher by calculating based on an amount in historic transaction data is comparing data and rules to determine a result as in *Smartgene*. The step of associating the voucher entry with the consumer account identifier comparing and organizing information. The step of processing a transaction including receiving a charge request, identifying a selected consumer account, identifying a voucher entry and adjusting the charge amount is similar to collecting and comparing data as in *Classen* and as a financial transaction it is reflective of a fundamental economic practice.

(Ans. 3–4; *see also* Final Act. 4–5.) Similarly, the Examiner determined that "a financial transaction . . . is reflective of a fundamental economic practice similar to OIP Tech involving price optimization." (Ans. 18.) We agree that the Examiner has not satisfied the proper burden for a prima facie case.

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) (citation omitted).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court's two-step framework, described in *Mayo*

and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is "directed to." *See Alice*, 573 U.S. at 219 ("On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk."); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) ("Claims 1 and 4 in petitioners' application explain the basic concept of hedging, or protecting against risk.").

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as "molding rubber products" (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); "tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores" (*id.* at 182 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 191 ("We view respondents' claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula."). Having said that, the Supreme Court also indicated that a claim "seeking patent

protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment." *Id.* (citing *Benson* and *Flook*); *see, e.g.*, *id.* at 187 ("It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.").

If the claim 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 (citation omitted). "A claim that recites an abstract idea must include 'additional features' to ensure 'that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].'" *Id.* (quoting *Mayo*, 566 U.S. at 77, (alterations in original)). "[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention." *Id.*

The United States Patent and Trademark Office recently published revised guidance on the application of § 101. USPTO's 2019 *Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019).

Under that guidance, we first look to whether the claim recites:

> (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and
>
> (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h) (9th ed. 2018).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look to whether the claim:

> (3) adds a specific limitation beyond the judicial exception that are not "well-understood, routine, conventional" in the field (*see* MPEP § 2106.05(d)); or
>
> (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

See 84 Fed. Reg. at 56.

Although the Examiner provides several generalized statements with citations to multiple Federal Circuit cases (*see* Ans. 18), these statements neither: (a) identify the specific limitations in the claims under examination that the Examiner believes recites an abstract idea; nor (b) demonstrate the identified limitations fall within the subject matter groupings of abstract ideas of mathematical concepts, certain methods of organizing human activity, or mental processes. *See* 84 Fed. Reg. at 56. In particular, the Examiner neither accounts for all the limitations recited in claim 1, nor adequately articulates why the claimed concepts are analogous to the facts of *Classen*, *Smartgene*, *Electric Power*, and *OIP Technologies*.

Accordingly, we are persuaded by Appellant's arguments that "describing the claims [as to the abstract idea of 'generating dynamic offers'] at such a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule." (Br. 21.)

Thus, we do not sustain the rejection of independent claim 1 under 35 U.S.C. § 101. Claims 3, 4, 6–8, 10, and 11 depend from independent

claim 1. We do not sustain the rejection of claims 3, 4, 6–8, 10, and 11 under 35 U.S.C. § 101 for the same reasons discussed with respect to independent claim 1.

Independent claim 12 recites limitations similar to those discussed with respect to independent claim 1. We do not sustain the rejection of claim 12, as well as dependent claims 14, 15, and 17–21, for the same reasons discussed with respect to claim 1.

§ 103 Rejection—Arthur, Fordyce, and Bemmel

We are unpersuaded by Appellant's arguments (Br. 30–31) that the combination of Arthur, Fordyce, and Bemmel would not have rendered obvious independent claim 1, which includes the limitation "the dynamic discount amount being calculated based on at least one of the amounts in the historic transaction data of the first consumer account."

The Examiner found that the mobile advertisements of Fordyce, in which coupons are generated based on prior purchases, correspond to the limitation "the dynamic discount amount being calculated based on at least one of the amounts in the historic transaction data of the first consumer account." (Ans. 20–21; *see also* Final Act 10–11.) We agree with the Examiner's findings.

Fordyce relates to "the processing of transaction data, such as records of payments made via credit cards" and "providing information based on the processing of the transaction data." (¶ 2.) Fordyce explains that "[i]n one embodiment, mobile advertisements, such as offers and coupons, are generated and disseminated based on aspects of prior purchases, such as timing, location, and nature of the purchases, etc." (¶ 70.) Because Fordyce

explains that mobile advertisements, including coupons,[1] are generated and disseminated based on aspects of prior purchases, Fordyce teaches the limitation "the dynamic discount amount being calculated based on at least one of the amounts in the historic transaction data of the first consumer account."

Appellant argues that "Fordyce does not appear to disclose that discount amounts are calculated based on historic transaction data," because "Fordyce only appears to disclose that distribution of offers is controlled using spending profiles." (Br. 30 (emphasis omitted).) In particular, Appellant argues that "Fordyce [paragraph 70] does not suggest that an amount of the discount is calculated based on historic transaction data." (*Id.* (emphasis omitted).) Contrary to Appellant's arguments, Fordyce explains that "mobile advertisements, such as . . . coupons, are generated and disseminated based on aspects of prior purchases, such as timing, location, and nature of the purchases . . . ." (¶ 70.) Accordingly, the limitation "historic transaction data of the first consumer account" is broad enough to encompass prior purchases of Fordyce, such as timing, location, and nature of the purchases.

Appellant further argues "that claim 1 defines a discount as a first amount that is adjusted to a second amount with the discount" and "[n]ot every offer or reward is a discount." (Br. 31.) However, Fordyce further explains that "mobile advertisements, such as . . . coupons, are generated and

[1] A "coupon" is defined as "a small piece of paper that allows one to get a service or product for free or at a lower price." MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY 266 (10th ed. 1999).

disseminated." (¶ 70.) One of ordinary skill in the art would recognize that a coupon permits a buyer to receive a discount on goods or services.

Thus, we agree with the Examiner that the combination of Arthur, Fordyce, and Bemmel would have rendered obvious independent claim 1, which includes the limitation "the dynamic discount amount being calculated based on at least one of the amounts in the historic transaction data of the first consumer account."

Accordingly, we sustain the rejection of independent claim 1 under 35 U.S.C. § 103(a). Claims 4, 6–8, 10, and 11 depend from claim 1, and Appellant has not presented any additional substantive arguments with respect to these claims. Therefore, we sustain the rejection of claims 4, 6–8, 10, and 11 under 35 U.S.C. § 103(a), for the same reasons discussed with respect to independent claim 1.

Independent claim 12 recites limitations similar to those discussed with respect to independent claim 1, and Appellant has not presented any substantive arguments with respect to this claim. We sustain the rejection of claim 12, as well as dependent claims 15 and 17–21 for the same reasons discussed with respect to claim 1.

§ 103 Rejection—Arthur, Fordyce, Bemmel, and Nakashima

Although Appellant nominally argues the rejection of dependent claims 3 and 14 separately (Br. 32), the arguments presented do not point out with particularity or explain why the limitations of these dependent claims are separately patentable. Instead, Appellant merely argues: (i) "[c]laim 3 depends from claim 1 and should be allowable for at least the same reasons as claim 1"; and "[c]laim 14 depends from claim 12 and should be allowable

for at least the same reasons as claim 12." (*Id.*) We are not persuaded by these arguments for the reasons discussed with respect to claims 1 and 12, from which claims 3 and 14 depend. Accordingly, we sustain this rejection.

DECISION

The Examiner's decision rejecting claims 1, 3, 4, 6–8, 10–12, 14, 15, and 17–21 is affirmed.

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).

AFFIRMED