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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DAVID SKIBA, GEORGE ERHART, and
VALENTINE C. MATULA

Appeal 2019-002805
Application 14/243,108
Technology Center 3600

Before RICHARD M. LEBOVITZ, JEFFREY N. FREDMAN, and
MICHAEL A. VALEK, *Administrative Patent Judges*.

FREDMAN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal¹ under 35 U.S.C. § 134(a) involving claims to a computerized customer service system. The Examiner rejected the claims as obvious and as reciting non-statutory subject matter. We have jurisdiction under 35 U.S.C. § 6(b). We reverse.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the Real Party in Interest as Avaya, Inc. (*see* Appeal Br. 2).

Statement of the Case

Background

“Retail establishments constantly endeavor to improve the customer experience and maximize sales. Oftentimes opportunities are lost to improve customer relations at the final point of contact, the check-out” (Spec. ¶ 2). “[A] real-time tool is provided to assist customer-service employees in a retail environment to help maximize the customer experience which may help to increase sales or improve customer satisfaction” (*id.* ¶ 4). “The representative may be working at a checkout register/point-of-sale terminal and initiate the dialogue/script based on a particular item being purchased by the customer” (*id.* ¶ 7).

For example, if the customer is in a department store and purchasing slacks, the representative may initiate a dialogue by scanning the particular bar code associated with the slacks. Scanning of the bar code may trigger the generation of a dialogue that directs the representative to inquire if the customer had seen the shirt, shoes, or belt that match the slacks being purchased. As a benefit, improved customer experience and added sales may be realized.

(*Id.*).

The Claims

Claims 1–20 are on appeal. Claim 1 is reproduced below, reformatted for clarity, and with bracketed letters added to identify certain language:

1. A method, comprising:
 - [a] receiving a signal from a sensor, the signal comprising indicia of an interaction and subject of the interaction comprising an item at a first location wherein the item is an item for purchase by a customer;
 - [b] conveying indicia of the signal to a microprocessor;

[c] accessing, by the microprocessor, a database comprising a set of first dialogues, each of the set of first dialogues identifies a second item at a second location, different from the first location, and associated with the first item and a first action to be performed with the second item at the second location and wherein the database further comprises a set of second dialogues, each of the set of second dialogues identifies a non-compliance action associated with noncompliance with the first action;

[d] selecting, by the microprocessor, a first dialogue from a set of first dialogues in accord with the signal;

[e] transmitting, by the microprocessor via a network, the first dialogue to a device associated with a party comprising the interaction;

[f] monitoring, by the microprocessor, the second item for compliance with the first action; and

[g] upon the microprocessor determining a non-compliance with the first action, selecting, by the microprocessor a second dialogue from the set of second dialogues in accordance with the non-compliance with the first action and delivering the second dialogue to the device.

The Rejections

A. The Examiner rejected claims 1–20 under 35 U.S.C. § 101 as directed to an abstract idea (Final Act. 7–9).

B. The Examiner rejected claims 1–20 under 35 U.S.C. § 103 as obvious over Sriver² and Daigle³ (Final Act. 10–15).

A. 35 U.S.C. § 101

The Examiner finds the claims are “directed to the abstract idea of providing dialogues to a customer based upon the customer action with a

² Sriver et al., US 2010/0145784 A1, published June 10, 2010.

³ Daigle et al., US 2011/0244798 A1, published Oct. 6, 2011.

first or second item” (Final Act. 7). The Examiner finds the claimed “steps describe the concept of organizing human activities, which corresponds to concepts identified as abstract ideas by the courts, such as gathering and combining data by reciting steps of organizing information similar to generating a second menu from a first menu and sending the second menu to another location” (*id.*).

Appellant contends the claims are not drawn to methods of organizing human activity and

submits the claims are entirely directed to other subject matter. While one may speculate as to how the usage of the claimed invention may prompt a human to act, the claims do not *recite* humans or human actions, but rather physical devices with location sensing and communication components that, in response to a location, performs a particular task.

(Reply Br. 3).

Principles of Law

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. *See, 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* 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.”).

Concepts determined to be abstract ideas, and therefore 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) 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, 191 (1981)) or software “purporting to improve the functioning of the computer itself” (*Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016)).

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.*

The United States Patent and Trademark Office published guidance on the application of 35 U.S.C. § 101. USPTO’s *2019 Revised Patent*

Subject Matter Eligibility Guidance (“Guidance”).⁴ Under the Guidance, in determining what concept the claim is “directed to,” 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) (Guidance Step 2A, Prong 1); and

(2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)) (Guidance Step 2A, Prong 2).

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 contains an “‘inventive concept’ sufficient to ‘transform’” the claimed judicial exception into a patent-eligible application of the judicial exception. *Alice*, 573 U.S. at 221 (quoting *Mayo*, 566 U.S. at 82). In so doing, we thus consider whether the claim:

(3) adds a specific limitation beyond the judicial exception that are not “well-understood, routine and 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. (Guidance Step 2B). *See* Guidance, 84 Fed. Reg. at 54–56.

Analysis

Applying the Revised Guidance to the facts on this record, we find that Appellant’s claims 1–20 are not directed to patent-ineligible subject

⁴ 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50–57 (January 7, 2019).

matter. Because the same issues are present in each of the claims, we focus our consideration on representative claim 1. The same analysis applied below to claim 1 also applies to the other rejected claims.

A. Guidance Step 1

We consider whether the claimed subject matter falls within the four statutory categories set forth in § 101, namely “[p]rocess, machine, manufacture, or composition of matter.” 2019 Guidance 53–54; see 35 U.S.C. § 101. Claims 1 recites a “method” and claim 10 recites a “system” and, thus, fall within the “process,” and “machine” categories respectively. Consequently, we proceed to the next step of the analysis.

B. Guidance Step 2A, Prong 1

The Revised Guidance instructs us first to determine whether any judicial exception to patent eligibility is recited in the claim. The Revised Guidance identifies three judicially-expected groupings identified by the courts as abstract ideas: (1) mathematical concepts, (2) certain methods of organizing human behavior such as fundamental economic practices, and (3) mental processes.

The steps of claim 1 recite a computerized method of sending dialogues, based on sensor signals, to a device that a customer is using, and depending on the customer’s actions, sending a second dialogue to the device.

The Examiner contends that this claim describes a “concept of organizing human activities (user interactions with items for purchase that then leads to a dialog for the user to another item at another location)”

because “[a]ll of these concepts relate to organizing human activities such as the electronic record keeping of interpersonal activities” (Ans. 3–4).

We find the Examiner’s reasoning unpersuasive. Claim 1 does not fall within any of the three of the judicially-excepted groupings listed in the Revised Guidance. Claim 1 lacks any mathematical concept, claim 1 is not a mental process, and the Examiner does not establish that claim 1 is directed to a method of organizing human activity as recited in the Guidance such as a fundamental economic practice or managing personal behavior or relations or interactions between people.

While it is indisputable that claim 1 involves a person as a customer, the Guidance does not suggest that every method that relates to people is necessarily either a fundamental economic practice or a method managing personal behavior or relations between people is abstract. Otherwise the Guidance could simply have referred to any method associated with people as an abstract idea, rather than identifying narrower categories.

As to claim 1, there is no evidence or reasoning suggesting that using sensors and interactions to select and send dialogues to devices associated with customers, monitoring the resulting response, and sending a second dialogue, is a fundamental economic practice.

And while claim 1 is designed to impact customer purchasing behavior, claim 1 does not directly manage personal behavior as in the examples recited in the October 2019 Update on Subject Matter Eligibility.⁵ The October 2019 Update recites:

⁵ October 2019 Update, https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf.

According to the 2019 [Guidance], “managing personal behavior or relationships or interactions between people” includes social activities, teaching, and following rules or instructions. Examples of these sub-groupings include subject matter such as:

- a set of rules for playing a dice game, *In re Marco Guldenaar Holding B.V.*;
- voting, verifying the vote, and submitting the vote for tabulation, *Voter Verified, Inc. v. Election Systems & Software LLC*;
- assigning hair designs to balance head shape, *In re Brown*; and
- a series of instructions of how to hedge risk, *Bilski v. Kappos*.

(October 2019 Update at 6; citations omitted).

We find the instant claims differ from the examples provided in the October 2019 Update and recited in MPEP § 2106.04(a)(2)(II)(C) because the instant claims do not directly instruct or direct the actions of a person, but rather address steps performed by a computer system to another computer device, based on data received by sensors. This is not abstract simply due to human interaction just as the electronic brake system in *KSR* that received sensor information from a person depressing a pedal that was then used to send control information via a computer to a braking system is not abstract simply because a human is involved in controlling the braking. See *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 411 (2007).

In re Marco Guldenaar Holding B.V. notes that the phrase “methods of organizing human activities”

can be confusing and potentially misused, since, after all, a defined set of steps for combining particular ingredients to create a drug formulation could be categorized as a method of organizing human activity. Here, however, where the Patent

Office further articulates a more refined characterization of the abstract idea (e.g., ‘rules for playing games’), there is no error.

(*In re Marco Guldenaar Holding B.V.*, 911 F.3d 1157, 1160 (Fed. Cir. 2018)). Here, the Examiner has not persuasively articulated a more refined characterization of the abstract idea of claim 1 that comports with the “methods of organizing human activity” type of abstract idea.

Accordingly, we conclude that the evidence of record does not support the Examiner’s finding that claim 1 recites a judicial exception to patent eligibility such as an abstract idea.

Guidance Step 2A, Prong 2 and Guidance Step 2B

Having determined that claim 1 does not recite a judicial exception, we need not address whether claim 1 satisfies the requirements under either Step 2A, Prong 2 or Step 2B of the guidance. *See* 84 Fed. Reg. 51.

The rejection of the claims under 35 U.S.C. § 101 is reversed.

B. 35 U.S.C. § 103(a) over Sriver and Daigle

The Examiner finds Sriver teaches all the steps of claim 1 except monitoring, by the microprocessor, the customer for compliance with the first action; and upon the microprocessor determining a non-compliance with the first action, selecting, by the microprocessor a second dialogue from the set of second dialogs in accordance with the non-compliance with the first action and delivering the second dialogue to the device.

(Final Act. 11; italics omitted; see step [g] of claim 1). The Examiner finds Daigle teaches this step and finds it obvious “to use Daigle's data packet generators in Sriver's time and location sensitive customer loyalty program to improve the system and method with reasonable expectation that this

would result in a system which is able to utilize GPS and RFID functionality” (*id.* at 12).

The issue with respect to this rejection is: Does a preponderance of the evidence of record support the Examiner’s conclusion that Sriver and Daigle render claim 1 obvious?

Findings of Fact

1. Sriver teaches, regarding step (a), a sensor signal that is associated with an item for purchase, specifically “a gas station can set up a discount code rule to generate a 10% off discount code for each customer participating in its loyalty program whenever the customer's location is within two miles of the gas station” (Sriver ¶ 97).

2. Sriver teaches, regarding step (b), indicia that are sent to a processor, specifically a server. “The server can be configured to determine a physical location of a user mobile device” and then the “server can be configured to select a discount code based, in part, on the location, the local time, and the user purchase history” (Sriver ¶ 102).

3. Sriver teaches, regarding step (c), that different dialogues may be sent to different customers, where “discounts are associated with a location (for example, valid at a specific store) and time (for example, an expiration date/time). This allows retailers to engage with customers in a customized manner” (Sriver ¶ 21).

4. Sriver teaches, regarding step (d), selecting a dialogue where “the retailer sends the customer a text message with an offer” (Sriver ¶ 22).

5. Sriver teaches, regarding step (e), transmitting the offer to the customer, specifically teaching “[c]ustomized discounts can be received as

notifications on the phone through the application utilizing the location of the phone and the time of day” (Sriver ¶ 24).

6. The Examiner acknowledges that Sriver does not teach steps (f) and (g) (*see* Final Act. 11).

7. Daigle teaches “user interface **1600** is also or alternatively used in some embodiments to provide wayfinding for third parties. For example, first responders or other emergency personnel uses user interface **1600** to determine what instructions have already been given, and/or to guide them to a place where their assistance is needed” (Daigle ¶ 224).

8. Daigle teaches “other embodiments are used to confirm that a person made it to a particular location (e.g., a user made it to a location for a treasure hunt, or made it to the top of Mt. Everest, etc.)” (Daigle ¶ 225).

9. Daigle teaches “[a]n example of a qualifying event is the detection of potential tampering, such as by a tamper sensor” (Daigle ¶ 326).

10. Daigle teaches tracking where “[a]uthentication of the location of an object is useful in many applications. For example, it is used in some embodiments to track the location of a file, a piece of mail, furniture, or any other object” and “[i]f any object has not been properly moved, the information is available immediately in some embodiments, so that the object may be located” (Daigle ¶¶ 243–244).

11. Daigle teaches:

a kit that includes a variety of Web-enabled RFID tags. Users can then associate the tag to an object and update the information online. In these cases, end users can do whatever they want with the Web-enabled RFID tags that they own (search for keys, wallet, socks, etc). Strength of signal and direction of signal (for this and other applications) can be useful.

(Daigle ¶ 554).

Principles of Law

A prima facie case for obviousness “requires a suggestion of all limitations in a claim,” *CFMT, Inc. v. Yieldup Int’l Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) and “a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007).

Analysis

Appellant contends⁶ “Daigle remains silent as to monitoring a second item and providing a second dialog upon a determined non-compliance” (Appeal Br. 17). Appellant contends

While “hot” or “cold” with respect to a target location may be provided, to conclude that such a teaching is a determination of a non-compliance of an interaction with a second item and select a dialog in accordance with a first action (to be performed with a second item), is to insert teachings absent from the art of record.

(Appeal Br. 11). Appellant also contends “Daigle may teach asset tags and their use, but as to a motivation to combine Daigle and Sriver to make the claimed invention – Appellant submits none is present” (Appeal Br. 18).

The Examiner responds

the qualifying events that are able to trigger alerts or an invalid message regarding the data packets from items, as described by

⁶ We note that Appellant contends that the Examiner has taken “Official Notice” but find this request for a § 104(d)(2) affidavit or declaration unpersuasive because the Examiner is relying not on personal knowledge but on the teachings of the cited references. An argument by an Examiner is not a taking of “Official Notice.”

[Daigle], in such a way as to provide a scavenger hunt or obstacle course for a user, in combination with Sriver's purchasing system that reads upon the monitoring a second item and providing a dialog upon a determined non-compliance. One of ordinary skill in the art would be able to ascertain a scavenger hunt or treasure hunt by receiving alerts or invalid messages based upon the sensory devices that generate packets of data for the wireless communication device, as taught by [Daigle].

(Ans. 11–12).

We find Appellant has the better position because we are not persuaded by the Examiner's reason to combine Daigle's "recalculating" or "hot or cold" message with the location aware customer loyalty programs of Sriver. Even if we treated Daigle as teaching a second message in the context of locating people or items, Sriver's reason for locating people is to provide them with customized discounts (FF 5). The rejection provides no teaching in Sriver or Daigle suggesting that when a customer chooses not to take advantage of a customized discount the system would generate a second message for some purpose.

We recognize the Examiner's argument that "GPS signals are often not strong enough to penetrate into buildings" and "[r]adio frequency identification (RFID) technology is sometimes for identification or tracking of objects" (Ans. 12). However, even if RFID technology would be obvious to combine with GPS location determination, there is still no persuasive reason to send a second dialogue due to non-compliance with a first action as required by claim 1.

Conclusion of Law

A preponderance of the evidence of record does not support the Examiner's conclusion that Sriver and Daigle render claim 1 obvious.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Basis	Affirmed	Reversed
1-20	101	Eligibility		1-20
1-20	103	Sriver, Daigle		1-20
Overall Outcome				1-20

REVERSED