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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte TERRY WAYNE HORNBAKER, RAELYNN A. SINK, and RICHARD JOSEPH LAMPREA MONTERO

Appeal 2015-007575
Application 13/224,587[1]
Technology Center 3600

Before ANTON W. FETTING, JOSEPH A. FISCHETTI, and CYNTHIA L. MURPHY, *Administrative Patent Judges*.

FISCHETTI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants seek our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 1–5 and 7–25. We have jurisdiction under 35 U.S.C. § 6(b).

SUMMARY OF DECISION

We AFFIRM.

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[1] Appellants identify Accenture Global Services Limited as the real party in interest. Appeal Br. 4.

THE INVENTION

Appellants state, "[t]he application relates to a computer-implemented method, a computer system and a computer storage medium for processing data and generating an index" (Spec. ¶ 1).

Claim 1 reproduced below, is representative of the subject matter on appeal.

1. A computer-implemented method for selecting a unit for a customer, comprising:

receiving booking data for one or more customers, the booking data being specific to a previously booked journey on a travel conveyance and being stored in one or more computer-readable storage media;

receiving profile data for each of the one or more customers, the profile data being stored in one or more computer-readable storage media;

receiving operational data, the operational data being specific to the travel conveyance and being stored in one or more computer-readable storage media;

processing, by one or more processors, the booking data, the profile data and the operational data based on availability and on one or more unit eligibility rules, each unit eligibility rule of the one or more unit eligibility rules comprising one or more conditions and one or more actions associated with the one or more conditions, each condition being associated with a requirement and being based on one or more values that indicate whether the respective condition is met;

generating an initial eligible unit group index based in the processing, the initial eligible unit group index comprising, for each customer of the one or more customers, a list of one or more unit groups each unit group being associated with a requirement and comprising one or more units in the travel conveyance that a respective customer is eligible to be assigned to, the initial eligible unit group index being generated at least partially based on one or more actions that are executed in response to one or more conditions being met;

filtering the initial eligible unit group index based on one or more filter rules and requirements associated with unit groups to provide an eligible unit group index that comprises, for each customer of the one or more customers, a sub-list of one or more unit groups, each unit group meeting at least one respective requirement; and

providing the eligible unit group index as input to a unit selection engine, the unit selection engine processing the eligible unit group index to select a unit for a customer from a sub-list associated with the customer.

THE REJECTION

The Examiner relies upon the following as evidence of unpatentability:

Ashby et al. ("Ashby")	US 2007/0143154 A1	June 21, 2007
Nasr et al. ("Nasr")	US 2012/0022901 A1	Jan. 26, 2012

The following rejections are before us for review.

Claims 1–5 and 7–25 are rejected under 35 U.S.C. § 101.

Claims 1–5, 7, 10–13, and 18–25 are rejected under 35 U.S.C. § 102(e) as anticipated by Nasr.

Claims 8, 9, and 14–17 are rejected under 35 U.S.C. § 103(a).

ANALYSIS

35 U.S.C. § 102(e) REJECTION

We will reverse the rejection of claims 1–5, 7, 10–13, and 18–25 under 35 U.S.C. § 102(e).

Each of independent claims 1, 23, and 24 recites, in pertinent part, the steps of:

> *processing, by one or more processors, the booking data, the profile data and the operational data based on availability and on one or more unit eligibility rules, each unit eligibility rule of the one or more unit eligibility rules comprising one or more conditions and one or more actions associated with the*

one or more conditions, each condition being associated with a requirement and being based on one or more values that indicate whether the respective condition is met;

generating an initial eligible unit group index based in the processing, the initial eligible unit group index comprising, for each customer of the one or more customers, a list of one or more unit groups each unit group being associated with a requirement and comprising one or more units in the travel conveyance that a respective customer is eligible to be assigned to, the initial eligible unit group index being generated at least partially based on one or more actions that are executed in response to one or more conditions being met.

Appx. Claim 1.

The Examiner found,

as a matter of claim interpretation, the "initial eligibility unit group index being generated based on or more actions that are executed in response to one or more conditions being met" limitation is largely superfluous, as 1) the broadly claimed "actions" and "conditions" do not necessarily refer to the previous limitation's "actions" and "conditions," and 2) all data processing is necessarily based on "actions" and "conditions." Nonetheless, Nasr, in cited ¶ 0025, discloses that "seats are *first* assigned in groups based on operational needs, guarantees, and preferences." Emphasis added. Such a first assignment discloses generating an "initial eligible unit group index" based on "a requirement" and "one or more actions that are executed in response to one or more conditions being met."

(Answer 5).

Appellants argue,

Nasr also fails to disclose or render obvious providing the eligible unit group index as input to a unit selection engine, the unit selection engine processing the eligible unit group index to select a unit for a customer from a sub-list associated with the customer. Instead, and as discussed above, Nasr provides that the rules 370 can be used to sort the seating assignment guarantees and preferences [and] the decision engine 336

> leverages an output generation component 338, which generates the desired output (such as an e-mail, download, fax, etc. of a boarding pass, confirmation, or the like) (Nasr, ¶ [0043]). That is, in Nasr, the rules 370 are used to sort the seating assignment guarantees and preferences, which is different than the unit selection engine processing the eligible unit group index to select a unit for a customer from a sub-list associated with the customer, as recited in claims 1, 23 and 24.

(Appeal Br. 18).

> First, we disagree with the Examiner's claim construction that,
>
> as a matter of claim interpretation, the "initial eligibility unit group index being generated based on or more actions that are executed in response to one or more conditions being met" limitation is largely superfluous, as 1) the broadly claimed "actions" and "conditions" do not necessarily refer to the previous limitation's "actions" and "conditions," and 2) all data processing is necessarily based on "actions" and "conditions."

(Answer 5). An express limitation cannot be read out of the claim. *See Texas Instr. Inc. v. United States Int'l Trade Comm'n*, 988 F.2d 1165, 1171 (Fed. Cir. 1993) (claim language cannot be mere surplusage); *Unique Concepts, Inc. v. Brown*, 939 F.2d 1558, 1563 (Fed. Cir. 1991) (two distinct claim elements should each be given full effect).

Notwithstanding, the Examiner does cite to Nasr at paragraph 25 to meet this limitation, stating,

> Nasr, in cited ¶ 0025, discloses that "seats are *first* assigned in groups based on operational needs, guarantees, and preferences." Emphasis added. Such a first assignment discloses generating an "initial eligible unit group index" based on "a requirement" and "one or more actions that are executed in response to one or more conditions being met."

(Answer 5).

Our review of Nasr at paragraph 25 reveals that here, Nasr discloses a three tier system in which

> seats are first assigned in groups based on operational needs, guarantees, and preferences. . . . Finally, once the guaranteed options have been allocated, assignments can be made based on preferences, accommodating such preferences to the extent possible based on the available inventory and the airline's willingness to honor those requests.

Nasr discloses that assignment by requirement applies only to operationally guaranteed seating, or requirement based options to tier one persons, or purchased options (Nasr ¶25); and not to all persons, as the claim requirement states, i.e., "for each customer of the one or more customers." Thus, even if one customer is taken as a sample, Nasr would not meet the claim requirement because that customer might not be a tier one customer, or one who had purchased an option, or an operational guaranteed individual.

Moreover, there is no disclosure in Nasr of generating an eligibility group index to make this determination. An index is defined as "a number (such as a ratio) derived from a series of observations and used as an indicator or measure."[2] Nasr's grouping of tiered customers does not equate to an index as defined herein. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987), cert. denied, 484 U.S. 827 (1987).

[2] https://www.merriam-webster.com/dictionary/index (last visited 8/3/2017).

We also affirm the rejections of dependent claims 2-5, 7, 10-13, and 18-25 since Appellants have not challenged such with any reasonable specificity (see *In re Nielson*, 816 F.2d 1567, 1572 (Fed. Cir. 1987)).

The rejection of dependent claims 8, 9 and 14-17 under 35 U.S.C. § 103(a) is also reversed because the rejection which includes Ashby fails to remedy the shortfall discussed above with Nasr.

35 U.S.C. § 101 Rejection

Claim 1 is representative of all the independent claims before us on appeal, which contain similar limitations, and is a method claim of steps, *viz*.

> processing, by one or more processors, the booking data, the profile data and the operational data based on availability and on one or more unit eligibility rules, each unit eligibility rule of the one or more unit eligibility rules comprising one or more conditions and one or more actions associated with the one or more conditions, each condition being associated with a requirement and being based on one or more values that indicate whether the respective condition is met;
>
> generating an initial eligible unit group index based in the processing, the initial eligible unit group index comprising, for each customer of the one or more customers, a list of one or more unit groups each unit group being associated with a requirement and comprising one or more units in the travel conveyance that a respective customer is eligible to be assigned to, the initial eligible unit group index being generated at least partially based on one or more actions that are executed in response to one or more conditions being met;
>
> filtering the initial eligible unit group index based on one or more filter rules and requirements associated with unit groups to provide an eligible unit group index that comprises, for each customer of the one or more customers, a sub-list of one or more unit groups, each unit group meeting at least one respective requirement; and

> providing the eligible unit group index as input to a unit selection engine, the unit selection engine processing the eligible unit group index to select a unit for a customer from a sub-list associated with the customer.

Appeal Br. 22.

The Supreme Court

> set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, . . . determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so, we then ask, "[w]hat else is there in the claims before us?" To answer that question, . . . consider the elements of each claim both individually and "as an ordered combination" to determine whether the additional elements "transform the nature of the claim" into a patent-eligible application. [The Court] described step two of this analysis as a search for an "'inventive concept'"—*i.e.*, an element or combination of elements that is "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself."

Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 134 S. Ct. 2347, 2355 (2014) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012)).

To perform this test, we must first determine whether the claims at issue are directed to a patent-ineligible concept.

Although the Court in *Alice* made a direct finding as to what the claims were directed to, we find that this case's claims themselves and the Specification provide enough information to inform one as to what they are directed to.

The preamble to claim 1 recites that it is for selecting a unit for a customer. The steps in claim 1 result in providing an eligible unit group

index to select a unit for a customer from a sub-list associated with the customer. The Specification at paragraph 12 recites:

> Implementations of the present disclosure are generally directed to determining an eligibility of a customer for one or more unit groups. In an example context, discussed in further detail below, the customer can include a passenger on a travel conveyance, and a unit can include a travel accommodation. In the example context, the one or more unit groups can include one or more seat groups. That is, in some examples, a travel accommodation can include a seat in a travel conveyance. In some examples, a travel accommodation can include a room in a travel conveyance. In some examples, a travel conveyance can include an airplane, a train, a bus and a ship (e.g., a cruise ship). A travel accommodation group is provided as a group of travel accommodations that a passenger is eligible for.

Thus, all this evidence shows that claim 1 is directed to determining an eligibility of a customer for one or more travel accommodations, via an eligibility unit group index. It follows from prior Supreme Court cases, and *Gottschalk v. Benson*, 409 U.S. 63 (1972) in particular, that the claims at issue here are directed to an abstract idea. Like the algorithm in *Gottschalk*, determining an eligibility of a customer for one or more travel accommodations by generating an initial eligible unit group index based in the processing, the initial eligible unit group index, filtering the initial eligible unit group index based on one or more filter rules and requirements associated with unit groups to provide an eligible unit group index that comprises, for each customer, a sub-list of one or more unit groups, each unit group meeting at least one respective requirement and providing the eligible unit group index as input, is a mathematical algorithm/formula. Mathematical formulas are patent ineligible. *Parker v. Flook*, 437 U.S. 584, 594–595 (1978). Also, since the scheme attempts to accommodate the

wishes of a customer by indexing, we find that it represents a method of organizing human behavior. Thus, determining an eligibility of a customer for one or more travel accommodations is an "abstract idea" beyond the scope of § 101. *See Alice*, 134 S. Ct. at 2355–2357.

As in *Alice*, we need not labor to delimit the precise contours of the "abstract ideas" category in this case. It is enough to recognize that there is no meaningful distinction in the level of abstraction between the concept of performing a mathematical algorithm in *Gottschalk* and the concept of determining an eligibility of a customer for one or more travel accommodations using an eligibility unit group index, at issue here. Both are squarely within the realm of "abstract ideas" as the Court has used that term. *See Alice*, 134 S. Ct. at 2357. That the claims do not preempt all forms of the abstraction or may be limited to the abstract idea in the airline transportation setting, does not make them any less abstract. *See OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015). Perhaps more to the point, claim 1 does no more than appease a customer's travel wishes to effect goodwill. Goodwill is a disembodied concept that is the epitome of abstraction.

The introduction of a computer into the claims does not alter the analysis at *Mayo* step two.

> the 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 "implement[t]" an abstract

> idea "on ... a computer," that addition cannot impart patent eligibility. This conclusion accords with the preemption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of "additional feature[e]" that provides any "practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself."

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

"[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer." *Alice*, 134 S. Ct. at 2359. They do not.

Taking the claim elements separately, the function performed by the computer at each step of the process is purely conventional. Using a computer to take in data and compute a result from a database amounts to electronic data query and retrieval—one of the most basic functions of a computer. All of these computer functions are well-understood, routine, conventional activities previously known to the industry. In short, each step does no more than require a generic computer to perform generic computer functions.

Considered as an ordered combination, the computer components of Appellants' method add nothing that is not already present when the steps are considered separately. Viewed as a whole, Appellants' claims simply recite the concept of determining an eligibility of a customer for one or more travel accommodations using an eligibility unit group index, as performed by a generic computer. The method claims do not, for example, purport to improve the functioning of the computer itself. Nor do they effect an improvement in any other technology or technical field. Instead, the claims at issue amount to nothing significantly more than an instructions to

determine an eligibility of a customer for one or more travel accommodations based on an eligibility unit group index. Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 134 S. Ct. at 2360.

As to the structural claims, they

> are no different from the method claims in substance. The method claims recite the abstract idea implemented on a generic computer; the system claims recite a handful of generic computer components configured to implement the same idea. This Court has long "warn[ed] ... against" interpreting § 101 "in ways that make patent eligibility 'depend simply on the draftsman's art.'

Alice, 134 S. Ct. at 2360 (alterations in original).

We thus disagree with Appellants that "each of claims 1, 23 and 24 of the instant application each recites a detailed technique to provide an eligible unit group index based on filtering an initial eligible unit group index to select a unit for a customer, reciting an ordered combination of features with a degree of particularity not found in an abstract idea alone." (Reply Br. 2). This is because all items argued by Appellants in the above statement can be implemented by human thought, e.g., filtering by eligibility is nothing more than the human thought process of selecting.

Appellants do not argue the dependent claims and thus we also affirm the rejection of the dependent claims under 35 U.S.C. § 101.

CONCLUSIONS OF LAW

We conclude the Examiner did not err in rejecting claims 1–5 and 7–25 under 35 U.S.C. § 101.

We conclude the Examiner did err in rejecting claims 1–5, 7, 10–13, and 18–25 under 35 U.S.C. § 102(e).

We conclude the Examiner did not err in rejecting claims 8, 9, and 14–17 under 35 U.S.C. § 103.

DECISION

The decision of the Examiner to reject claims 1–5 and 7–25 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). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED