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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/715,457	03/02/2010	Gregory J. Boss	END920090131US1	8797

79980 7590 12/01/2017

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ART UNIT	PAPER NUMBER
3683	

NOTIFICATION DATE	DELIVERY MODE
12/01/2017	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GREGORY J. BOSS, CHRISTOPHER J. DAWSON, RICK A. HAMILTON II, and BENJAMIN G. MORRIS

Appeal 2016-005283[1]
Application 12/715,457[2]
Technology Center 3600

Before JAMES A. WORTH, BRADLEY B. BAYAT, and TARA L. HUTCHINGS, *Administrative Patent Judges*.

WORTH, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 2–6, 9–13, 16–20, 22, and 23. We have jurisdiction under 35 U.S.C. §§ 134 and 6(b).

We AFFIRM.

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[1] Our decision refers to the Appellants' Appeal Brief ("Br.," filed Sept. 8, 2015) the Examiner's Final Office Action ("Final Act.," mailed Mar. 26, 2015) and Answer ("Ans.," mailed Feb. 12, 2016).

[2] According to Appellants, the real party in interest is International Business Machines Corp. (Appeal Br. 1).

Introduction

Appellants' application relates to "transit systems (e.g., Personal Rapid Transit (PRT) systems)" and specifically to a method, system, and computer-readable storage device for "changing/updating priority levels (e.g., of user and/or vehicles) within a controllable transit system" (Spec. ¶ 2).

Claims 3, 10, 17, and 22 are the independent claims on appeal. Claim 3, reproduced below, is illustrative of the subject matter on appeal:

> 3. A method for adjusting a length of a transit time for an individual traveler within a mass transit system, comprising the computer-implemented steps of:
>
> computing an initial route for a vehicle within the controllable transit system, the initial route being based on a priority level of the vehicle, the priority level being based on a service class of the vehicle, the vehicle being a small automatically controlled form of ground-based public transportation operating on a network of specially-built guideways that provides on-demand, non-stop transportation to the individual traveler;
>
> receiving a request to change the priority level;
>
> changing the priority level in response to the request;
>
> determining a set of routing options, the set of routing options having transit times that are adjusted from an original transit time of the initial route based on the changing of the priority level;
>
> selecting an updated route from the set of routing options; and
>
> changing the initial route based on the selection, wherein the steps are performed on a suitably-programmed computer.

(Appeal Br., Claims App'x.)

Rejection on Appeal

The Examiner maintains, and Appellants appeal, the following rejection:

Claims 2–6, 9–13, 16–20, 22, and 23 stand rejected under 35 U.S.C. § 101 as being directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more.

ANALYSIS

Claims 2–6, 9–13, 16–20, 22, and 23

The Court in *Alice* emphasized the use of a two-step framework for analysis of patentability under 35 U.S.C. § 101:

> First, we 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, we 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.

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

The Examiner determines that claims 2–6, 9–13, 16–20, 22, and 23 are directed to a method, system, and computer-readable medium for performing calculations to adjust transit time, which is abstract because it is a way of organizing information through mathematical correlations. *See* Final Act. 3–4 (referring to *Digitech Image Tech., LLC v. Electronics for Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014); *2014 Interim Guidance on Patent Subject Matter Eligibility*, 79 Fed. Reg. 74618 (Dec. 16, 2014) ("Interim Guidance")). The Examiner finds that the additional limitations do not add significantly more because there are no improvements to another technology or technical field, nor is there an improvement to the functioning

of the computer itself, even if the claims might improve a business process for calculating times. *Id.* at 4.

Appellants argue that determining updated route options are not merely mathematical calculations. Br. 8. Appellants argue that the claimed invention is instead rooted to a specific structure and to specific machines within this specific structure and that the claimed invention organizes physical travel pathways for all travelers in a system. *Id.* However, the Supreme Court in *Bilski* rejected the machine-or-transformation test for determining abstraction. *Bilski v. Kappos*, 561 U.S. 593 (2010). As such, the test is not one of physicality. We agree with the Examiner inasmuch as the claimed invention is directed to a method of organizing human behavior, i.e., by changing priority levels for transit, which is an abstract idea. *See Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014).

Appellants argue that the Examiner incorrectly relies on *Digitech* for the determination that the claimed invention is abstract. Br. 8–9. Appellants assert that the claimed invention is "not merely drawn to a data structure, such as the device profiles in *Digitech*, but can be more closely compared to Example 4 of the Interim Eligibility Guidance, which is modeled after *SiRF Technology Inc. v. International Trade Commission*, 601 F.3d 1319 (Fed. Cir. 2010)." *Id.* at 7–8.[3] The Federal Circuit has elsewhere explained that the claims at issue in *Digitech* were directed to abstract mathematical formulae or generalized steps that can be performed on any general purpose

[3] Appellants appear to be referring to Example 4 of the "Abstract Idea Examples" (dated Jan. 27, 2015) to the 2014 Interim Guidance on Patent Subject Matter Eligibility, available at https://www.uspto.gov/sites/default/files/documents/abstract_idea_examples.pdf (hereinafter, "Abstract Idea Examples").

computer, in distinguishing those claims. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1338–39 (Fed. Cir. 2016); *see also Amdocs (Israel) Limited v. Openet Telecom, Inc.*, 841 F.3d 1288, 1296, 1300 (Fed. Cir. 2016). We agree with the Examiner that the claimed invention resembles the claims at issue in *Digitech* inasmuch as the claims refer to a computing method, which the Examiner correctly finds is not linked to a particular computing environment and applies to a general purpose computer. Ans. 5. Indeed, although the Specification refers to a method of transportation, the Specification does not refer to any particular computing environment. Further, the Specification does not even provide an algorithm or data structure to be used. As such, this case differs from *Enfish,* in which the court found patentable certain data structures that were directed to advances in computing technology, and from *Amdocs*, where the court found that a distributed architecture was inventive as an ordered combination and represented an advantage over prior art systems. *See Enfish*, 822 F.3d at 1338; *Amdocs*, 841 F.3d at 1302.

For similar reasons, we are not persuaded that the claimed invention resembles the claim at issue in *SiRF Technology*, which is discussed in the Interim Guidance, in a section entitled "Abstract Idea Decisions From the Federal Circuit Prior to Alice Corp. (2010–2014)," 79 Fed. Reg. at 74360, and in Example 4 of the "Abstract Idea Examples" Update thereto (dated Jan. 27, 2015). In particular, the Interim Guidance observes that in *SiRF Technology*, the presence of the GPS receiver in the claim places a meaningful limit on the scope of the claim. *Id.* As to Example 4 of the Abstract Idea Examples, which also refers to *SiRF*, the USPTO noted there that "the combination of elements [in *SiRF*] impose[s] meaningful limits in

that the mathematical operations are applied to improve an existing technology (global positioning) by improving signal-acquisition sensitivity of the receiver to extend the usefulness of the technology into weak-signal environments and providing the location information for display on the mobile device." Abstract Idea Examples, 12–13. However, the claimed invention in the present application, when viewed in light of the Specification, is not directed to an improvement in computer technology, as the Examiner correctly finds. *See* Final Act. 4.

Accordingly, we agree with the Examiner that the claimed invention is directed to an abstract idea, i.e., organizing activity based on a mathematical algorithm. For similar reasons, we agree with the Examiner that the additional limitations, e.g., of "receiving a request," "changing the priority level," "determining," "reducing a time," "return[ing] the set of routing options to a sender of the request," "adjusting a length of transit a time," "upgrading the priority level," and "providing a computer infrastructure" for the instructions, taken individually or as a whole, do not add significantly more to remove the claimed invention from the realm of the abstract. These limitations are directed to the same abstract idea of prioritizing travel, and the Specification does not provide more than general computing structures. Nor does the Specification explain how this would be a technology advance in computing. *See* Final Act. 4. For example, neither the claims nor the Specification provide the algorithm. As such, the claimed invention remains at the level of an abstraction, i.e., to prioritize certain vehicles during transportation, which is an abstract means of organizing human behavior.

For these reasons, we sustain the Examiner's rejection under § 101 of claims 2–6, 9–13, 16–20, 22, and 23.

DECISION

The Examiner's decision to reject claims 2–6, 9–13, 16–20, 22, and 23 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).

AFFIRMED