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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* DEAN ENGEL, PHIL BENZ, SUDHIR PONDUGULA,  
SUSAN PRUETT, and CHAD HARTMAN

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Appeal 2017-000416<sup>1</sup>  
Application 11/865,593<sup>2</sup>  
Technology Center 3600

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Before ANTON W. FETTING, NINA L. MEDLOCK, and  
ALYSSA A. FINAMORE, *Administrative Patent Judges*.

MEDLOCK, *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 1–8 and 10–20. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> Our decision references Appellants’ Appeal Brief (“Br.,” filed December 7, 2015) and the Examiner’s Answer (“Ans.,” mailed July 29, 2016) and Final Office Action (“Final Act.,” mailed May 4, 2015).

<sup>2</sup> Appellants identify Level 3 Communications, LLC as the real party in interest. Br. 2.

### CLAIMED INVENTION

Appellants' claimed invention "generally relate[s] to validating customer-entered addresses," and more specifically, "to providing location-based services based on customer-entered addresses" (Spec. ¶ 2).

Claims 1, 12, and 18 are the independent claims on appeal. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A computer-implemented method for providing a location-based service, the method comprising:
  - receiving address data identifying a customer entered civic address of a customer requesting telecommunication services;
  - validating the received address data to determine if the identified address is an actual address;
  - determining a location corresponding to the identified civic address based on the address data;
  - generating a location key using a processor to form the location key based on the location, wherein generating the location key comprises forming the location key by combining a rate center associated with the identified address and one or more area criteria associated with the identified address; and
  - determining whether one or more services are available at the identified civic address based on the-generated location key.

### REJECTIONS

Claims 2, 3, and 12–20 are rejected under 35 U.S.C. § 112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the subject matter that Appellants regard as the invention.

Claims 1–8 and 10–20 are rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

Claims 1, 4–8, and 12–15 are rejected under 35 U.S.C. § 102(b) as anticipated by Coughlin, Jr. et al. (US 2005/0169449 A1, pub. Aug. 4, 2005) (hereinafter “Coughlin”).<sup>3</sup>

Claims 2, 3, 10, and 11 are rejected under 35 U.S.C. § 103(a) as unpatentable over Coughlin and Searight et al. (US 7,668,651 B2, iss. Feb. 23, 2010).

Claims 16–18 are rejected under 35 U.S.C. § 103(a) as unpatentable over Coughlin and Mihm et al. (US 5,387,783, iss. Feb. 7, 1995) (hereinafter “Mihm”).

Claims 19 and 20 are rejected under 35 U.S.C. § 103(a) as unpatentable over Coughlin, Mihm, and Miller et al. (US 2003/0225725 A1, pub. Dec. 4, 2003).

## ANALYSIS

### *Indefiniteness*

#### *Dependent Claims 2 and 3*

Appellants do not provide any response to the Examiner’s rejection of claims 2 and 3 under 35 U.S.C. § 112, second paragraph. Therefore, the Examiner’s rejection is summarily sustained.

#### *Independent Claim 12 and Dependent Claims 13–15*

Independent claim 12 is directed to a system for identifying one or more location-based services available at an address, and recites that the system comprises an “address validation and resolution module”; a “location

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<sup>3</sup> We treat the Examiner’s reference to canceled claim 9 (Final Act. 13) as a typographical error.

key generator”; and an “available services determination module.”

Claims 13–15 depend from claim 12.

In rejecting independent claim 12 under 35 U.S.C. § 112, second paragraph, the Examiner finds that the terms “address validation and resolution module”; “location key generator”; and “available services determination module” are “generic placeholders” rather than specific structural elements, and the Examiner concludes that Appellants, by the use of these terms, intended to invoke 35 U.S.C. § 112, sixth paragraph (Final Act. 4–6). The Examiner further finds that the corresponding structure for these means-plus-function elements is a processor, and that claim 12 is indefinite because the Specification does not disclose an algorithm for performing the claimed functions (Final Act. 7–8).

Appellants ostensibly maintain that claim 12 does not invoke the application of 35 U.S.C. § 112, sixth paragraph, because the claim recites sufficient structure, i.e., the “Specification clearly defines a module as ‘a self-contained functional component’” (Br. 5). But, we find no indication in the record that a person of ordinary skill in the art, on reading the Specification, would understand the terms “address validation and resolution module,” “location key generator,” and “available services determination module” to connote specific structure, nor any indication that these terms are used in common parlance or by persons of skill in the art to designate particular structure. *See, e.g., Advanced Ground Info. Sys., Inc. v. Life360, Inc.*, 830 F.3d 1341, 1347–48 (Fed. Cir. 2016) (“The standard is whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.”) (quoting *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015)).

Instead, we find that the term “module,” as used here, is simply a nonce word substitute for the phrase “means for,” and that “address validation and resolution” and “available services determination” are merely adjectives that describe the claimed modules. Therefore, we agree with the Examiner that the “address validation and resolution module,” “location key generator,” and “available services determination module” limitations should properly be regarded as “means plus function” limitations.

The Specification indicates, as Appellants also acknowledge (Br. 5–6), that “[a] module may be implemented in hardware, software, firmware, or any combination thereof” (Spec. ¶ 38). Thus, the “modules” are broad enough to encompass only software, as the Examiner concludes (Final Act. 7). And implementation as software requires the disclosure of an algorithm.

Appellants do not dispute the Examiner’s finding that the Specification fails to disclose an algorithm for performing the claimed functions; nor do Appellants otherwise identify where an algorithm can be found in the Specification. Therefore, we sustain the Examiner’s rejection of independent claim 12 under 35 U.S.C. § 112, second paragraph. *See Function Media, LLC v. Google, Inc.*, 708 F.3d 1310, 1318 (Fed. Cir. 2013) (holding that a computer-implemented means-plus-function limitation is indefinite because the specification failed to disclose the specific algorithm used by the computer to perform the recited function). For the same reasons, we also sustain the rejection of dependent claims 13–15.<sup>4</sup>

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<sup>4</sup> Dependent 13 recites that “the address validation and resolution module is further operable to validate the civic address by querying one or more of customer supplied data stores, a geospatial data store and a postal service.”

*Non-Statutory Subject Matter*

Under 35 U.S.C. § 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. The Supreme Court, however, has long interpreted § 101 to include an implicit exception: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *See, e.g., Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014).

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012), “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice Corp.*, 134 S. Ct. at 2355. The first step in that analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* If the claims are not directed to a patent-ineligible concept, e.g., an abstract idea, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered “individually and ‘as an ordered combination’” to determine whether there are additional elements that “‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 566 U.S. at 79, 78).

The Court acknowledged in *Mayo*, that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena,

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The Examiner rejects claim 13 as indefinite under § 112, second paragraph, on the further ground that it is unclear “as to how the querying is performed” (Final Act. 9). Appellants do not provide any response. Therefore, the rejection of claim 13 on this additional basis is summarily sustained.

or abstract ideas.” *Mayo*, 566 U.S. at 71. Therefore, the Federal Circuit has instructed that claims are to be considered in their entirety to determine “whether their character as a whole is directed to excluded subject matter.” *McRO, Inc. v. Bandai Namco Games Am., Inc.*, 837 F.3d 1299, 1312 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)).

In rejecting claims 1–8 and 10–20 under 35 U.S.C. § 101, the Examiner determined that the claims are directed to “information validation or, alternatively, provisioning of services based on location, specifically, validating a customer’s address in order to determine what services are available at the customer’s address,” which the Examiner concluded is “a fundamental economic practice, a method of organizing human activities, an idea of itself, or a mathematical relationship or formula,” and, therefore, an abstract idea (Final Act. 10). The Examiner also determined that the claims do not include additional elements or a combination of elements that provides meaningful limitations to transform the abstract idea into a patent-eligible application of the abstract idea such that the claims amount to significantly more than the abstract idea itself (*id.* at 10–11).<sup>5</sup>

Appellants argue that the § 101 rejection cannot be sustained because the Examiner has failed to establish a *prima facie* case of patent-ineligibility (Br. 6). Appellants assert that the Examiner merely states that the claimed invention is an abstract idea and lists all four categories, but “has not

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<sup>5</sup> The Examiner also concluded that claims 12–17 are directed to software per se and, therefore, to non-statutory subject matter (Br. 11), and that claims 18–20 similarly encompass non-statutory subject matter, i.e., transitory signals (*id.* at 12). Appellants do not address these determinations.

provided any reason why ‘validating a customer’s address in order to determine what services are available at the customer’s address’ is an abstract idea” (*id.*).

There is no dispute that additional explanation is always helpful. But we cannot agree that the Examiner’s rejection is insufficient to put Appellants on notice of the basis for the rejection; nor do we agree that the Examiner has otherwise failed to set forth a prima facie case of patent-ineligibility.<sup>6</sup>

The Federal Circuit has repeatedly observed that “the prima facie case is merely a procedural device that enables an appropriate shift of the burden of production.” *Hyatt v. Dudas*, 492 F.3d 1365, 1369 (Fed. Cir. 2007) (citing *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992)). The court has, thus, held that the USPTO carries its procedural burden of establishing a prima facie case when its rejection satisfies the requirements of 35 U.S.C. § 132 by notifying the applicant of the reasons for the rejection, “together with such information and references as may be useful in judging of the propriety of continuing the prosecution of [the] application.” *See In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011) (alteration in original). Thus, all that is required of the Office is that it sets forth the statutory basis of the rejection in a sufficiently articulate and informative manner as to meet the notice requirement of § 132. *Id.*; *see also Chester v. Miller*, 906 F.2d 1574, 1578 (Fed. Cir. 1990) (“Section 132 is violated when a rejection is so

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<sup>6</sup> We also note for the record that Examiner provided an expanded discussion of the § 101 rejection in the Examiner’s Answer (Ans. 3–24). Appellants did not file a Reply Brief or otherwise offer any response to this expanded discussion.

uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection.”).

Here, the Examiner set forth the basis for the § 101 rejection in a sufficiently articulate and informative manner as to meet the notice requirement of § 132. And, we find that, in doing so, the Examiner set forth a proper rejection under § 101 such that the burden shifted to Appellants to demonstrate that the claims are patent-eligible.

We also are not persuaded of Examiner error by Appellants’ further argument that the claims are patent-eligible because the claims satisfy the transformation prong of the *Bilski*<sup>7</sup> machine-or-transformation test (Br. 6–7). Appellants note that claim 1, for example, recites “generating a location key . . . by combining a rate center associated with the identified address and one or more area criteria associated with the identified address” (*id.* at 6). And Appellants argue that “[t]he combination of the rate center with one or more area criteria results in transformation of electronic data” (*id.*). But, this alleged “transformation” is, at best, merely a manipulation of data, which is not sufficient to meet the transformation prong under 35 U.S.C. § 101. *See Gottschalk v. Benson*, 409 U.S. 63, 71–72 (1972) (holding that a computer based algorithm that merely transforms data from one form to another is not patent-eligible).

We are not persuaded, on the present record, that the Examiner erred in rejecting claims 1–8 and 10–20 under 35 U.S.C. § 101. Therefore, we sustain the Examiner’s rejection.

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<sup>7</sup> *Bilski v. Kappos*, 561 U.S. 593 (2010).

*Anticipation*

*Independent Claim 1 and Dependent Claims 4–8*

We are persuaded by Appellants’ argument that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 102(b) at least because Coughlin does not disclose “generating a location key . . . by combining a rate center associated with the identified address and one or more area criteria associated with the identified address,” as recited in claim 1 (Br. 7–8).

The Examiner cites paragraphs 38, 41, 43, 78, 92, 106, 120, and 121 of Coughlin as disclosing the argued limitation (Final Act. 13–14). And the Examiner explains that although Coughlin does not explicitly use the term “location key,” this is “nothing more than a label that has been assigned to the customer’s order” (*id.* at 17). The Examiner, thus, takes the position that the claimed “location key” is nothing more than “information that is used by the service provider to describe the specific services that are going to be provided at a specific (and valid) address”; that Coughlin discloses that information about the order includes valid address information, the services available at the valid address, and criteria”; and that “although Coughlin does not use the same terminology as that of the claimed invention, . . . the concept is still taught” (*id.*).

We have carefully reviewed the portions of Coughlin on which the Examiner relies. But, we find no disclosure in the cited paragraphs that an order record, which the Examiner equates to the claimed “location key,” is generated (based on a validated address) by combining a rate center and one or more area criteria associated with the identified address, as claim 1 requires. Instead, the best that Coughlin discloses is that an order entry module receives a customer order; confirms/validates the address of the

customer that is provided in the service order; and assigns the customer order to a rate center for fulfillment of the customer order.

In view of the foregoing, we do not sustain the Examiner's rejection of claim 1 under 35 U.S.C. § 102(b). For the same reasons, we also do not sustain the Examiner's rejection of dependent claims 4–8.

*Independent Claim 12 and Dependent Claims 13–15*

Independent claim 12 includes language substantially similar to the language of claim 1. Therefore, we do not sustain the Examiner's rejection under 35 U.S.C. § 102(b) of claim 12, and claims 13–15, which depend therefrom, for the same reasons set forth above with respect to claim 1.

*Obviousness*

Independent claim 18 includes language substantially similar to the language of claim 1. The Examiner's rejections of independent claim 18 and dependent claims 2, 3, 10, 11, 16, 17, 19, and 20 are based on the same rationale with respect to Coughlin applied in rejecting claims 1 and 12 under 35 U.S.C. § 102(b). Therefore, we do not sustain the Examiner's rejections of independent claim 18 and dependent claims 2, 3, 10, 11, 16, 17, 19, and 20 for substantially the same reasons set forth above with respect to claims 1 and 12.

DECISION

The Examiner's rejection of claims 2, 3, and 12–20 under 35 U.S.C. § 112, second paragraph, is affirmed.

The Examiner's rejection of claims 1–8 and 10–20 under 35 U.S.C. § 101 is affirmed.

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The Examiner's rejection of claims 1, 4–8, and 12–15 under 35 U.S.C. § 102(b) is reversed.

The Examiner's rejections of claims 2, 3, 10, 11, and 16–20 under 35 U.S.C. § 103(a) are reversed.

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