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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte NORMA SAIPH SAVAGE AND RITA H. WOUHAYBI

Appeal 2019-000160
Application 14/795,614
Technology Center 2100

BEFORE JASON V. MORGAN, MICHAEL J. STRAUSS, and
PHILLIP A. BENNETT, *Administrative Patent Judges*.

STRAUSS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE¹

Pursuant to 35 U.S.C. § 134(a), Appellant² appeals from the Examiner's decision to reject claims 1–12. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We refer to the Specification, filed July 9, 2015 (“Spec.”); Final Office Action, mailed August 8, 2017 (“Final Act.”); Appeal Brief, filed March 14, 2018 (“Appeal Br.”); and Examiner’s Answer, mailed July 3, 2018 (“Ans.”).

² 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 Intel Corporation. Appeal Br. 3.

CLAIMED SUBJECT MATTER

The claims are directed to traversing data utilizing data relationships. Spec., Title. Claim 1, reproduced below with a disputed limitation emphasized in *italics*, is illustrative of the claimed subject matter:

1. At least one computer readable storage medium comprising a set of traversal instructions which, if executed by a processor, cause a computer to:

generate a first set of search results based on a scope of a requested search and on an object space comprising data elements, wherein the object space is to include a first object and a second object arranged according to a relative relationship based on an attribute, and *wherein the first object and the second object each includes data that describes one or more of an individual, a product that is a subject of a commercial transaction, a service that is a subject of a commercial transaction, or a social network inquiry;*

generate a user interface including a first adjustment mechanism configured to adjust a scope of the requested search, and a second adjustment mechanism configured to adjust results of a search based on a weight accorded to the attribute relative to another attribute; and

generate a second set of search results based on a user input received via one or more of the first adjustment mechanism and the second adjustment mechanism, wherein the second set of search results is to include the second object.

REFERENCE

The prior art relied upon by the Examiner is:

Gregory Ewing, *Experiments in Interactive Map Retrieval*, Doctoral Thesis, University of Canterbury, 1992, pp. 1–240

REJECTIONS

Claims 1–12 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. Final Act. 2–5.

Claims 1–12 stand rejected under 35 U.S.C. § 102(b) as anticipated by Ewing. Final Act. 5–15.

ANALYSIS

Except as noted, we adopt as our own the findings and reasons set forth by the Examiner in (1) the action from which this appeal is taken (Final Act. 2–16, Ans. 2–15) and (2) the Examiner’s Answer in response to Appellant’s Appeal Brief (Ans. 15–22) and concur with the conclusions reached by the Examiner. We highlight the following for emphasis.

35 U.S.C. § 101

Appellant’s contentions are unpersuasive with regard to the rejection of claims 1–12 under 35 U.S.C. § 101. Section 101 defines patentable subject matter: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. The U.S. Supreme Court, however, has “long held that this provision contains an important implicit exception” that “[l]aws of nature, natural phenomena, and abstract ideas are not patentable.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012) (quotation omitted). “Eligibility under 35 U.S.C. § 101 is a question of law, based on underlying facts.” *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018).

To determine patentable subject matter, we undertake a two part test. “First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts” of “laws of nature, natural phenomena, and abstract ideas.” *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014).

“The inquiry often is whether the claims are directed to ‘a specific means or method’ for improving technology or whether they are simply directed to an abstract end-result.” *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017) (citation omitted). A court must be cognizant that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas” (*Mayo*, 566 U.S. at 71), and “describing the claims at . . . a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016). Instead, “the claims are considered in their entirety to ascertain whether their character as a whole is directed to excluded subject matter.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

If the claims are directed to an abstract idea or other ineligible concept, then we continue to the second step and “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.” *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 79, 78). The Court describes the second step 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.’” *Id.* (quoting *Mayo*, 566 U.S. at 72–73).

The Office recently published revised guidance on the application of § 101. USPTO, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Revised Guidance”); *see also* USPTO,

October 2019 Update: Subject Matter Eligibility, available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf (Oct. 17, 2019) (“Oct. 2019 Guidance”). Under the Revised Guidance, we look to whether the claim recites

- (1) a judicial exception, such as a law of nature or any of the following groupings of abstract ideas:
 - (a) mathematical concepts, such as mathematical formulas;
 - (b) certain methods of organizing human activity, such as a fundamental economic practice; or
 - (c) mental processes, such as an observation or evaluation performed in the human mind;
- (2) any additional limitations that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)); and
- (3) any additional limitations beyond the judicial exception that, alone or in combination, were not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)).

See Revised Guidance, 84 Fed. Reg. at 52, 55, 56. Under the Revised Guidance, if the claim does not recite a judicial exception, then it is eligible under § 101, and no further analysis is necessary. *Id.* at 54. Similarly, under the guidance, “if the claim as a whole integrates the recited judicial exception into a practical application of that exception,” then no further analysis is necessary. *Id.* at 53, 54.

In connection with Step 2A the Examiner determines “the claims are directed to an abstract idea similar to ‘collecting information, analyzing it, and displaying certain results of the collection and analysis’” found

ineligible by the courts. Final Act. 2, citing *Elec. Power Grp. LLC v. Alstom*, 830 F.3d 1350 (Fed. Cir. 2016). In particular, the Examiner finds “the steps that [define] the abstract idea are the steps of (1) ‘**generate a first set of results . . .**’, (2) ‘**generate a user interface . . .**’, and (3) ‘**generate a second set of results,**’” Final Act. 3 (ellipses in original). Thus, the Examiner characterizes the steps as similar to the steps of collecting and analyzing information and displaying results in *Electric Power*. *Id.* at 3. In connection with Step 2B the Examiner determines “[t]he claim(s) do not include additional elements that are sufficient to amount to significantly more than the judicial exception because the additional computer elements, which are recited at a high level of generality, provide conventional computer functions that do not add meaningful limits to practicing the abstract idea.” *Id.* at 2–3.

Appellant contends the rejection is improper because the claim “features undoubtedly facilitate ease of use and increase flexibility that, analogously to *Enfish*, constitute an improvement to computer functionality itself.” Appeal Br. 16–17.

The Examiner responds, contrasting the claims with those determined eligible in *Enfish* and, instead, finds the claims similar to those determined ineligible in *Electric Power*. Ans. 18. In particular, the Examiner quotes the Federal Circuit’s opinion in *Electric Power* wherein the court found those claims to use existing computers as tools in implementing processes focused on an abstract idea in contrast with the claims in *Enfish* that the court found were focused on how computers perform basic functions of data storage and retrieval. *Id.*

Appellant’s arguments are unpersuasive of reversible Examiner error.

USPTO Step 2A, Prong 1

Claim 1 recites (a) generating a first set of search results; (b) generating a user interface including adjustment mechanisms to adjust the scope of the search and weight accorded to one attribute relative to another attribute; and (c) generate a second set of search results. Generating search results involves making observations about data elements and evaluating the data elements to determine if the data elements satisfy some criteria. Thus, steps (a) and (c) include mental processes that can be performed in the human mind and/or with the aid of pen and paper. Step (b) requires a mechanism to adjust criteria used to select the data elements, i.e., the scope of the search and relative weighting of attributes, i.e., search criteria. This step can also be performed in the human mind. For example, upon obtaining (e.g., observing) search results, a user might decide to change the scope of the search and prioritize search criteria. That is, a shopper might narrow a search for clothing (i.e., a product that is a subject of a commercial transaction) to weigh the price of the clothing more heavily than the style of the clothing. All of this decision processing can be performed in the human mind as a mental process. Thus, consistent with the Examiner's determination that the claims recite collecting information, analyzing it, and displaying certain results of the collection and analysis, we find such processes can be accomplished as a series of mental processes in the human mind and/or using pen and paper.

For the reasons discussed above, claim 1 recites mental processes that are considered to be an abstract idea under the Revised Guidance.

USPTO Step 2A, Prong 2

We are unpersuaded the claims integrate the judicial exception into a practical application. In particular, claim 1 requires only generalized capabilities and functionalities and specifies types of data being stored and searched. For example, claim 1 requires an object space, a term that is not defined in the Specification other than the requirement it includes first and second objects. Spec. ¶ 109. In turn, according to claim 1, an object includes data describing an individual, a product, or a service. Thus, the claimed object space is merely a collection of data.

Claim 1 additionally requires a user interface including first and second adjustment mechanisms configured to adjust a scope of a second search and search results based on a relative weighting of attributes (i.e., search parameters). The Specification does not provide a detailed description of the adjustment mechanisms other than to depict and generally describe a knob for receiving user input to control positioning of the knob (*see, e.g.*, Figs. 7A–7B; Spec. ¶ 68 (“the adjustment mechanisms may take the form of [] knobs.”)) or, in the alternative, a scrollable bar (Spec. ¶ 111). In particular, the knob depicted in the figures appears to be a virtual object displayed as a graphic element of graphical user interface (GUI) 110. Thus, the adjustment mechanisms and, therefore, the claimed user interface merely require a data input capability for adjusting search parameters. These limitations do not constitute additional elements that integrate the judicial exception into a practical application. *See* MPEP § 2106.05(a)–(c), (e)–(h).

Appellant’s contention that “[the claimed] features undoubtedly facilitate ease of use and increase flexibility that, analogously to *Enfish*, constitute an improvement to computer functionality itself” (Appeal Br. 16–

17) is unsupported by sufficient evidence or explanation to be persuasive. Appellant fails to direct our attention to and we do not ascertain any technological aspect recited by the claims other than the generic automation of a mental process of refining a search based on object attributers. The present case is different from *Enfish* because the focus of the claims here is not on an improvement in computers as tools or upon an innovative way to use computers or other devices; instead, the claims are directed to an abstract idea that uses generic computer processing equipment as tools.

If, as argued, claim 1 provides a method of “searching data elements in a way that affords the user increased value and increased flexibility” (*id.* at 16), Appellant provides insufficient evidence or reasoning explaining how “computer functionality itself” is improved. Contrary to Appellant’s argument, we find the method is claimed as a functionality that merely enables the underlying concept of allowing a user to refine a search by updating search criteria rather than improving the technology implementing the search.

For the reasons discussed, the claims do not include additional elements that integrate the judicial exception into a practical application because the additional elements: (1) do not improve the functioning of a computer or other technology; (2) are not applied with any particular machine (except for a generic computer); (3) do not effect a transformation of a particular article to a different state; and (4) are not applied in any meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception. *See* MPEP § 2106.05(a)–(c), (e)–(h). Instead, any improvement is to the

underlying idea of refining a search by collecting information, analyzing it, and displaying certain results of the collection and analysis. Thus, claim 1 does not integrate the judicial exception into a practical application.

USPTO Step 2B

Because claim 1 recites a judicial exception and does not integrate that exception into a practical application, we must then reach the issue of whether the claim adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field.

Revised Guidance, 84 Fed. Reg. at 56.

The Examiner finds:

Claim 1 recites the additional limitation of a “processor” for performing the method. The “processor” [is] recited at a high level of generality and are recited as performing generic computer functions routinely used in computer applications. Generic computer components recited as performing generic computer functions that are well-understood, routine and conventional activities amount to no more than implementing the abstract idea with a computerized system.

Final Act. 4; *see also* Ans. 4.

We agree with the Examiner. Appellant has not identified any specific limitations of claim 1 that is not “well-understood, routine, conventional” in the field as per MPEP § 2106.05(d). Instead, Appellant describes the invention in a manner consistent with its being “well-understood, routine, [and] conventional,” such that the claimed processor of claim 1 (and corresponding data traversal apparatus of claim 5) requires no more than a general-purpose computer processor executing computer program instructions. In particular, Appellant discloses “processor core 200 may be the core for any type of processor, such as a micro-processor, an

embedded processor, a digital signal processor (DSP), a network processor, or other device to execute code.” Spec. ¶ 74. Consistent with the Specification, the claim 1 processor³ fails to go beyond that which is well-understood, routine, and conventional. It is indicative of the absence of an inventive concept where the claims simply append well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. Revised Guidance, 84 Fed. Reg. at 56. Furthermore, the functionalities recited by claim 1 are recited at a high level of generality that do not set forth limited rules for implementing the functionalities sufficient to confer patent eligibility.

Therefore, we conclude claim 1, viewed “both individually and as an ordered combination,” does not recite significantly more than the judicial exception to transform the claim into patent-eligible subject matter. *See Alice*, 573 U.S. at 217 (internal quotations omitted) (quoting *Mayo*, 566 U.S. at 79).

Accordingly, for the reasons discussed, claim 1 is directed to mental processes identified as abstract ideas. Furthermore, the claims do not recite limitations that amount to significantly more than the abstract idea itself. Accordingly, we sustain the rejection of independent claim 1 under

³ We note claim 1 does not affirmatively encompass a processor, only a “computer readable storage medium comprising a set of traversal instructions which, if executed by a processor, cause a computer to [perform the recited actions].” Because we find any requirement for a processor to be well-understood, routine, and conventional, we do not decide whether the processor itself constitutes an additional limitation to be considered under Step 2B of our analysis.

35 U.S.C. § 101 and, for the same reasons, the rejection of independent claims 5 and 9, together with the rejection of dependent claims 2–4, 6–8, and 10–12, which are not argued separately with particularity.

35 U.S.C. § 102(b)

The Examiner finds Ewing anticipates claim 1. Final Act. 6. In addressing the claim language “wherein the first object and the second object each includes data that describes one or more of an individual, a product that is a subject of a commercial transaction, a service that is a subject of a commercial transaction, or a social network inquiry,” the Examiner finds Ewing’s disclosure of an individual object describes the recited “individual” of the listed alternative data types. *Id.*

Appellant contends the Examiner’s interpretation of an “individual” is improper, arguing “[t]he claim term ‘individual’ . . . clearly refers to a person” and not more generally to individual objects. Appeal Br. 18. According to Appellant, the recited “individual” is presented as part of a listing including other nouns describing items and not used as an adjective as in Ewing’s disclosure of individual objects. *Id.* Thus, Appellant argues, Ewing’s individual objects including geographic entities, fails to disclose an individual: “A person is not a geographic entity.” *Id.* at 19.

The Examiner responds, finding the Specification fails to disclose what is meant by an individual much less use the term *person* as argued by Appellant. Ans. 20–21. Instead, according to the Examiner, the Specification includes an open description of what comprises objects including individual, products, services, and “so forth.” *Id.* at 20 (quoting Spec. ¶ 15).

Appellant's contention is unpersuasive. Claim 1 recites the argued individual as one of four alternative types of data, i.e., data that describes one or more of (1) an individual, (2) a product that is a subject of a commercial transaction, (3) a service that is a subject of a commercial transaction, or (4) a social network inquiry. However, while reciting these four types of data, the type or nature of data being manipulated has no functional relationship to the actions performed according to the claim other than the recited actions are performed on those types of data. That is, the actions recited by claim 1 are not affected by or operate differently depending on the type of data on which the actions are performed. Accordingly, the data descriptions themselves, whether of an individual or otherwise, are non-functional descriptive material.

Under our precedent, the type or nature of information being manipulated does not lend patentability to an otherwise unpatentable computer-implemented product or process. *Ex parte Nehls*, 88 USPQ2d 1883, 1889 (BPAI 2008) (precedential). *See also Ex parte Mathias*, 84 USPQ2d 1276, 1279 (BPAI 2005) (informative), *aff'd*, 191 F. App'x 959 (Fed. Cir. 2006) (Rule 36) (“[N]onfunctional descriptive material cannot lend patentability to an invention that would have otherwise been anticipated by the prior art”); *Ex parte Curry*, 84 USPQ2d 1272, 1274 (BPAI 2005) (informative), *aff'd*, No. 06-1003 (Fed. Cir. 2006) (Rule 36) (“Nonfunctional descriptive material cannot render nonobvious an invention that would have otherwise been obvious”). Accordingly, Appellant's argument is unpersuasive because it attempts to distinguish claim 1 over Ewing based on a failure to disclose a claim element that represents non-functional descriptive material.

Furthermore, Appellant fails to persuade us the argued individual is limited to a person. During examination of a patent application, pending claims are given their broadest reasonable construction consistent with the specification. *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). Under the broadest reasonable interpretation standard, claim terms are given their ordinary and customary meaning as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). However, a particular embodiment appearing in the written description must not be read into the claim if the claim language is broader than the embodiment. *See In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) (“[L]imitations are not to be read into the claims from the specification.”). Construing claims broadly during prosecution is not unfair to the applicant, because the applicant has the opportunity to amend the claims to obtain more precise claim coverage. *Acad. of Sci. Tech Ctr.*, 367 F.3d at 1364. *See also In re Skvorecz*, 580 F.3d 1262, 1267–68 (Fed. Cir. 2009) (“Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified.” (Quoting Manual of Patent Examining Procedure § 2111)).

Here, Appellant has provided insufficient evidence that the Examiner’s interpretation is unreasonable or inconsistent with the Specification. Although contending an individual is a person, we find helpful a dictionary definition of the argued term that is not so limited but includes an object within the definition: “individual n (1605) 1 a: a particular being *or thing* as distinguished from a class, species, or collection.”

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MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY, 10TH EDITION, p. 593 (Merriam-Webster) (1997) (emphasis added). Therefore, we disagree the Examiner erred in finding Ewing's disclosure of an individual object describes the recited individual.

For the reason discussed above, we sustain the rejection of independent claim 1 and, for the same reasons, the rejection of independent claims 5 and 9 under 35 U.S.C. § 102(b) together with the rejection of dependent claims 2-4, 6-8, and 10-12 which are not argued separately with particularity.

DECISION

We affirm the Examiner's rejections under 35 U.S.C. §§ 101 and 102(b).

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1-12	101	Eligibility	1-12	
1-12	102(b)	Ewing	1-12	
Overall Outcome			1-12	

FINALITY AND RESPONSE

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). *See* 37 C.F.R. § 41.50(f).

AFFIRMED