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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KATHRYN CARTWRIGHT

Appeal 2017-007010
Application 14/270,196¹
Technology Center 3600

Before CYNTHIA L. MURPHY, BRUCE T. WIEDER, and
BRADLEY B. BAYAT, *Administrative Patent Judges*.

WIEDER, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the Examiner’s final rejection of claims 1–8, 10, 12, 13, 15, 16, 18, 22–24, and 26–28. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

CLAIMED SUBJECT MATTER

Appellant’s invention relates to “a system for semantically modeling relationships and dependencies between groups, enclosure, assets, and support entities according to an industry specific manner.” (Spec. ¶ 3.)

¹ According to Appellant, the real party in interest is Edifice Technologies, Inc. (Appeal Br. 1.)

Claims 1 and 26 are the independent claims on appeal. Claim 1 is illustrative. It recites:

1. A system for semantically modeling relationships and dependencies between groups, enclosures, assets, and support entities according to an industry specific manner, the system comprising:

a database; and

a processor in data communication with the database, the processor configured to:

receive relationship and dependency information between at least one of groups, enclosures, assets, and support entities for an organization;

receive attributes with associated measurements for the at least one of the groups, enclosures, assets, and support entities for the organization, wherein the attributes with associated measurements are formatted according the specific industry of the organization, wherein the attributes include weight, temperature, and size of multiple assets that are computing devices in an enclosure that is a datacenter;

store the relationship and dependency information and the attributes with associated measurements into the database;

receive a specification of filter criteria for a user defined asset search;

generate a graphical user interface that provides a three dimensional (3D) visualization of the at least one of the groups, enclosures, assets, and support entities, wherein at least some of the assets are colored according to unique colors determined for each of multiple data ranges in the filter criteria; and

share asset information comprising all of physical asset component data, financial data, contractual data and utilization data.

REJECTIONS

Claims 1–8, 10, 12, 13, 15, 16, 18, 22–24, and 26–28 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

Claims 1–8, 10, 12, 13, 15, 16, 18, 22–24, and 26–28 are rejected on the ground of nonstatutory obviousness-type double patenting as unpatentable in view of claims 1–21 of Cartwright (US 8,719,066 B2, iss. May 6, 2014).

Claims 1, 4, 6, 8, 10, 18, 22–24, and 26 are rejected under 35 U.S.C. § 103(a) as unpatentable over Conner (US 2010/0229113 A1, pub. Sept. 9, 2010), Zara (US 2002/0169696 A1, pub. Nov. 14, 2002), and Rothmuller (US 2003/0033296 A1, pub. Feb. 13, 2003).

Claims 2 and 3 are rejected under 35 U.S.C. § 103(a) as unpatentable over Conner, Zara, Rothmuller, and Lareau (US 2003/0137968 A1, pub. July 24, 2003).

Claim 5 is rejected under 35 U.S.C. § 103(a) as unpatentable over Conner, Zara, Rothmuller, and Duchesneau (US 2009/0216910 A1, pub. Aug. 27, 2009).

Claims 7 and 16 are rejected under 35 U.S.C. § 103(a) as unpatentable over Conner, Zara, Rothmuller, and Hart (US 2008/0183483 A1, pub. July 31, 2008).

Claims 12 and 13 are rejected under 35 U.S.C. § 103(a) as unpatentable over Conner, Zara, Rothmuller, and Schick (US 2002/0065698 A1, pub. May 30, 2002).

Claim 15 is rejected under 35 U.S.C. § 103(a) as unpatentable over Conner, Zara, Rothmuller, and Casey (US 2008/0319811 A1, pub. Dec. 25, 2008).

Claims 27 and 28 are rejected under 35 U.S.C. § 103(a) as unpatentable over Conner, Zara, Rothmuller, and Hildreth (US 2009/0027337 A1, pub. Jan. 29, 2009).

ANALYSIS

The § 101 rejection

“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. Section 101, however, “contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

Alice applies a two-step framework, earlier set out 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*, 134 S. Ct. at 2355.

Under the two-step framework, it must first be determined if “the claims at issue are directed to a patent-ineligible concept.” *Id.* If the claims are determined to be directed to a patent-ineligible concept, e.g., an abstract idea, then the second step of the framework is applied to determine if “the elements of the claim . . . contain[] an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Id.* at 2357 (citing *Mayo*, 566 U.S. at 72–73, 79).

With regard to step one of the *Alice* framework, the Examiner determines that the claims are directed to the abstract “idea of modeling relationships and dependencies between assets and support entities (i.e.,

managing relationships and dependences between entities such as business and customers).” (Final Action 18–19.)

Appellant disagrees and argues that “the Examiner has overgeneralized the claims” (Appeal Br. 7), and that “[r]ead in their entirety, the claims recite detailed operations and structures that function together to, among other things, generate a specific user interface” (*id.* at 8). Appellant also argues that “the Examiner simply characterizes the claims as ‘an idea’ of modeling relationships and dependencies, without placing them in any of the recognized categories of abstract ideas.” (*Id.*)

Under step one of the *Alice* framework, we “look at the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a whole’ is directed to excluded subject matter.” *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016)).

The Specification provides evidence as to what the claimed invention is directed. In this case, the Specification discloses that the invention relates to “semantically modeling relationships and dependencies between groups, enclosure, assets, and support entities according to an industry specific manner.” (Spec. ¶ 3.) Claim 1 provides further evidence. Claim 1 recites “[a] system for semantically modeling relationships and dependencies . . . comprising:” “receive relationship and dependency information,” “receive attributes with associated measurements,” “store the . . . information and the attributes,” “receive . . . filter criteria,” “generate a graphical user interface,” “and share asset information.”

Although we and the Examiner describe, at different levels of abstraction, to what the claims are directed, it is recognized that “[a]n

abstract idea can generally be described at different levels of abstraction.” *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016). That need not and, in this case does not, “impact the patentability analysis.” *Id.* at 1241.

“[W]e have treated collecting information, including when limited to particular content (which does not change its character as information), as within the realm of abstract ideas.” *Elec. Power Grp.*, 830 F.3d at 1353. “In a similar vein, we have treated analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category.” *Id.* at 1354. “And we have recognized that merely presenting the results of abstract processes of collecting and analyzing information, without more (such as identifying a particular tool for presentation), is abstract as an ancillary part of such collection and analysis.” *Id.* “Here, the claims are clearly focused on the combination of those abstract-idea processes.” *Id.*; *see also FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1096–97 (Fed. Cir. 2016) (“FairWarning contends that its system allowed for the compilation and combination of . . . disparate information sources and that the patented method ‘made it possible to generate a full picture of a user’s activity, identity, frequency of activity, and the like in a computer environment.’ . . . As we have explained, ‘merely selecting information, by content or source, for collection, analysis, and [announcement] does nothing significant to differentiate a process from ordinary mental processes, whose implicit exclusion from § 101 undergirds the information-based category of abstract ideas.’ *Elec. Power*, 830 F.3d at 1355.” (alteration in original, internal citation omitted)).

Moreover, the limitations of claim 1 do not recite implementation details. Instead, they recite functional results to be achieved. In other words, claim 1 does not recite “a particular way of programming or designing the software . . . , but instead merely claim[s] the resulting systems.” *Apple, Inc.*, 842 F.3d at 1241. “Indeed, the claim language here provides only a result-oriented solution, with insufficient detail for how a computer accomplishes it. Our law demands more.” *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1342 (Fed. Cir. 2017).

Nonetheless, Appellant argues that “[t]he Examiner’s rejection does not meet the standard for a *prima facie* case.” (Appeal Br. 8.)

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 rejection, “together with such information and references as may be useful in judging of the propriety of continuing the prosecution of [the] application.” *In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011) (brackets in original, quoting 35 U.S.C. § 132(a)). Particularly in view of Appellant’s response to the Examiner’s stated reasons for the rejection, we do not agree that the Examiner did not notify Appellant of the reasons for the rejection.

Regardless, Appellant argues that the claims are analogous to those in *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016), and thus, not directed to an abstract idea. (Reply Br. 3–4.) In particular, Appellant argues that “like *McRO*, the claims provide a solution and improvement to a prior art process that is at least in part, manual, labor-intensive, and error prone: using spreadsheets to track and manage assets.” (*Id.* at 4.) We disagree.

In *McRO*, the court determined that

the claimed improvement here is allowing computers to produce “accurate and realistic lip synchronization and facial expressions in animated characters” that previously could only be produced by human animators. As the district court correctly recognized, this computer automation is realized by improving the prior art through “the use of rules, rather than artists, to set the morph weights and transitions between phonemes.” The rules are limiting in that they define morph weight sets as a function of the timing of phoneme sub-sequences.

McRO, 837 F.3d at 1313 (citations omitted). Unlike *McRO*, here, the asserted improvement is to a business method regarding modeling relationships between groups, enclosures, assets and support entities. Also unlike *McRO*, here, the claims recite functional results to be achieved. Thus, “these claims in substance [are] directed to nothing more than the performance of an abstract business practice . . . using a conventional computer. Such claims are not patent-eligible.” *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014).

Appellant also seeks to analogize the present claims to those in *Trading Technologies International, Inc. v. CQG, Inc.*, 675 F. App’x 1001 (Fed. Cir. 2017). (Reply Br. 6.) Appellant argues that “the claims clearly recite an inventive technique for generating a ‘graphical user interface.’” (*Id.*) We disagree.

Claim 1 in *Trading Technologies* recites, in part,

displaying the bid and ask display regions in relation to fixed price levels positioned along the common static price axis such that when the inside market changes, the price levels along the common static price axis do not move and at least one of the first and second indicators moves in the bid or ask display regions relative to the common static price axis.

Trading Techs., 675 F. App'x at 1003. The Federal Circuit agreed with the district court's determination that "[t]he claims require a specific, structured graphical user interface paired with a prescribed functionality directly related to the graphical user interface's structure that is addressed to and resolves a specifically identified problem in the prior state of the art." *Id.* at 1004. The Federal Circuit agreed with the district court that "the challenged patents solve problems of prior graphical user interface devices . . . in the context of computerized trading[] relating to speed, accuracy and usability." *Id.* (internal quotations omitted). "The [district] court found that these patents are directed to improvements in existing graphical user interface devices." *Id.*; see also *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356, 1362–63 (Fed. Cir. 2018) (The court determined that "[t]he asserted claims in this case are directed to an improved user interface for computing devices," that the claim "limitations disclose a specific manner of displaying a limited set of information to the user, rather than using conventional user interface methods," and that "[t]he disclosed invention improves the efficiency of using the electronic device." The court determined that the claims were not directed to an abstract idea.)

Here, Appellant does not explain what claim elements solve a problem of prior graphical user interface devices or improve a graphical user interface device. Nor does Appellant point to anything in the Specification disclosing how the claimed invention solves a problem relating to, or improves upon, a graphical user interface device. Therefore, we do not find this argument persuasive.

In view of the above, we agree with the Examiner that claim 1 is directed to an abstract idea.

Step two of the *Alice* framework has been described “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*, 134 S. Ct. at 2355 (alteration in original) (quoting *Mayo*, 566 U.S. at 72–73).

Appellant argues that claim 1 recites “significantly more” because claim 1 recites “generat[ing] a graphical user interface that provides a three dimensional (3D) visualization.” (Appeal Br. 10.) For the reasons discussed above, we agree with the Examiner that this is “nothing but a functionally described display of information.” (Answer 13; *see also supra*.)

Appellant also argues that “the invention covered by the claims improves a technical field and/or the functioning of computer systems themselves.” (Appeal Br. 10–11.) But Appellant does not persuasively argue how the invention improves a technical field or the functioning of a computer. Rather, Appellant uses the computer system to receive, store, analyze, and present data. And “relying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible.” *See OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015). Moreover, “[i]t has been clear since *Alice* that a claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention ‘significantly more’ than that ineligible concept.” *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018).

In view of the above, we agree with the Examiner that claim 1 is directed to a judicial exception without significantly more, and thus, we sustain the rejection of claim 1. Claims 4–8, 10, 15, 16, 18, 22–24, and 26–

28 are not separately argued and fall with claim 1. *See* 37 C.F.R.

§ 41.37(c)(1)(iv).

Appellant separately argues dependent claim 2. Claim 2 recites:

2. The system of Claim 1, further comprising:

a plurality of data transmission devices, each of the plurality of data transmission devices configured to be associated with one of the groups, enclosures, assets, and support entities for the corporation, wherein the plurality of data transmission devices comprises data of the associated one of the groups, enclosures, assets, and support entities; and

a plurality of data collection devices in signal communication with the processor and the plurality of data transmission devices, the plurality of data collection devices configured to retrieve the data from the plurality of data transmission devices,

wherein the data transmission devices and data collection devices comprise at least one of radio frequency identification (RFID) tags, antenna, readers or concentrators,

wherein the processor enters the data received from the data collection devices into the database.

Appellant argues that

[c]laim 2 . . . recites a specific combination of hardware including data transmission devices and data collection devices that work in concert to provide to the processor data about the “groups, enclosures, assets, and support entities.” This is not merely data collection. It is a specific combination of hardware that, even if the individual elements are themselves well known, must also be addressed by the Examiner.

(Appeal Br. 11.)

The Examiner answers that “the recited elements are nothing more than the use of insignificant *extra-solution* [sic] for collecting data and transmitting data over a network, which has been recognized by the courts as merely well-understood, routine, and conventional functions of generic

computers.” (Answer 13–14, citing July 2015 Update: Subject Matter Eligibility (July 2015) at 7 (available at <https://www.uspto.gov/sites/default/files/documents/ieg-july-2015-update.pdf>.)

We are not persuaded of error. Claim 2 does “not use these conventional RFID components in a non-conventional combination or arrangement. Instead, the claim[] merely disclose[s] collecting data from a particular source—RFID transponders—and analyzing that data.”

Automated Tracking Sols., LLC v. Coca-Cola Co., 723 F. App’x 989, 995 (Fed. Cir. 2018).

Appellant also separately argues claim 12. Claim 12 recites:

12. The system of Claim 1, wherein the processor is further configured to:

uniquely identify a location of an asset and physical orientation based on data received using at least one of a Radio Frequency Identification (RFID) system, a Real-time Locating System (RTLS) or Global Positioning System (GPS); and

display the uniquely identified location via the 3D visualization.

Appellant seeks to analogize claim 12 “to an example of an eligible patent claim provided by the Patent Office. (Abstract Idea Examples, Example 4, pp. 10-13, available at: [https://www.uspto.gov/sites/default/files/documents/abstract_idea_examples.pdf].)” (Appeal Br. 11–12.)

As an initial matter, we note that Example 4 is only a hypothetical example. (*See* Abstract Idea Examples 1.) Regardless, unlike Example 4, Appellant’s claim 12 merely recites functional results to be achieved. For the reasons discussed, *supra*, we do not find Appellant’s argument persuasive.

In view of the above, we agree with the Examiner that claims 2 and 12, and claims 3 and 13, which depend from claims 2 and 12, respectively, are directed to a judicial exception without significantly more, and thus, we sustain the rejection of claims 2, 3, 12, and 13.

The double patenting rejection

Claims 1–8, 10, 12, 13, 15, 16, 18, 22–24, and 26–28 are rejected on the ground of nonstatutory obviousness-type double patenting in view of claims 1–21 of U.S. Patent No. 8,719,066. (Final Action 12–16.) Appellant does not present any argument in response. Therefore, we summarily affirm this rejection.

The § 103(a) rejections

Appellant argues that Rothmuller is not analogous art. The Examiner relies on Rothmuller for disclosure of the claim limitation “wherein at least some of the assets are colored according to unique colors determined for each of multiple data ranges in the filter criteria.” (Final Action 24.)

“The pertinence of the reference as a source of solution to the inventor’s problem must be recognizable with the foresight of a person of ordinary skill, not with the hindsight of the inventor’s successful achievement.” *Scientific Plastic Prods., Inc. v. Biotage AB*, 766 F.3d 1355, 1359 (Fed. Cir. 2014). In making this finding, we look to the analogous-art test. “The analogous-art test requires that the Board show that a reference is either in the field of the applicant’s endeavor or is reasonably pertinent to the problem with which the inventor was concerned in order to rely on that reference as a basis for rejection.” *In re Kahn*, 441 F.3d 977, 986–87 (Fed.

Cir. 2006). In determining the field of endeavor, “the examiner and the Board must consider the ‘circumstances’ of the application—the full disclosure—and weigh those circumstances from the vantage point of the common sense likely to be exerted by one of ordinary skill in the art in assessing the scope of the endeavor.” *In re Bigio*, 381 F.3d 1320, 1326 (Fed. Cir. 2004).

The Examiner finds that “Rothmuller in [sic] an analogous art of online search engines.” (Final Action 24.)

Appellant argues that “Rothmuller is directed to managing, finding, and displaying objects such as digital images,” and “[t]he present application, on the other hand, is firmly in the data center asset tracking and management arts.” (Appeal Br. 13.) Nor, Appellant further argues

can Rothmuller be considered to be reasonably pertinent to the problem faced by the inventor. . . . The problems being addressed by Appellant’s techniques are those related to the management a large number of assets in a datacenter. Rothmuller, on the other hand, addresses problems related to managing and finding digital images. (Rothmuller, paras. 2 and 3).

(*Id.* at 14.)

The Examiner answers that

Rothmuller discloses . . . online search engines and the graphical display of search results Rothmuller suggests at least displaying the number of photos in different colors based on whether the tagged search criteria matched as “best” or “close” pattern. Thus, Rothmuller reasonably addresses the feature wherein at least some of the assets are colored according to unique colors.

(Answer 17.)

The Examiner does not sufficiently explain what the field of Appellant's endeavor is and why Rothmuller is in that field, or with what problem the inventor was concerned and why Rothmuller is reasonably pertinent to that problem. In other words, the Examiner has not sufficiently explained why, without the benefit of hindsight, Rothmuller would have been recognizable to a person of ordinary skill in the art as a pertinent reference. *See Scientific Plastic Prods., Inc.*, 766 F.3d at 1359.

Therefore, we will reverse the rejections of independent claims 1 and 26, and dependent claims 2–8, 10, 12, 13, 15, 16, 18, 22–24, 27, and 28 under § 103(a).

DECISION

The Examiner's rejection of claims 1–8, 10, 12, 13, 15, 16, 18, 22–24, and 26–28 under 35 U.S.C. § 101 is affirmed.

The Examiner's rejection of claims 1–8, 10, 12, 13, 15, 16, 18, 22–24, and 26–28 on the ground of nonstatutory obviousness-type double patenting is summarily affirmed.

The Examiner's rejections of claims 1–8, 10, 12, 13, 15, 16, 18, 22–24, and 26–28 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). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED