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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RAJU ADDALA, ALOK SINGH, NAGAVEENA RAJU,
ANKUSH MAHAJAN, LALITHA KAVURI,
KHANDERAO KAND, and CLEMENS UTSCHIG

Appeal 2016-004613
Application 12/718,625
Technology Center 3600

Before JUSTIN BUSCH, ALEX S. YAP, and STEVEN M. AMUNDSON,
Administrative Patent Judges.

BUSCH, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1–3, 5, 8–13, 15–18, and 20, which are all of the pending claims. Claims 4, 6, 7, 14, and 19 were previously canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

CLAIMED SUBJECT MATTER

The claims are “directed to a computer system generally, and more particularly to a computer system for the orchestration of business processes.” Spec. ¶ 1. Claims 1, 11, and 16 are independent. Claim 1 is reproduced below:

1. A non-transitory computer-readable medium having instructions stored thereon, when executed by a processor, cause the processor to orchestrate an order in a distributed order orchestration system, the orchestrating comprising:

saving a state of an executable orchestration process comprising one or more steps that orchestrate the order when an order object is received;

executing at least one step of the executable orchestration process;

at a pre-defined step in the execution of the executable orchestration process, modifying the state of the executable orchestration process;

at the pre-defined step in the execution of the executable orchestration process, saving the modified state of the executable orchestration process, wherein the modified state of the executable orchestration process comprises one or more attributes of the order object associated with the order;

receiving a change request, wherein the change request comprises a modification to the order object associated with the order;

merging a new order object with the order object; and

automatically adjusting the at least one executed step of the executable orchestration process using the saved modified state of the executable orchestration process and the merged order object.

REJECTIONS

Claims 1–3, 5, 8–13, 15–18, and 20 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 6–7.

Claims 1, 2, 8, 9, 11, 12, 16, and 17 stand rejected under 35 U.S.C. § 103(a) as being obvious in view of Chkodrov (US 7,107,340 B2; Sept. 12, 2006) and Srinivasan (US 7,096,189 B1; Aug. 22, 2006). Final Act. 7–11.

Claims 3, 5, 10, 13, 15, 18, and 20 stand rejected under 35 U.S.C. § 103(a) as being obvious in view of Chkodrov, Srinivasan, and Applicant Admitted Prior Art (“AAPA”). Final Act. 12–14.

ANALYSIS

REJECTION OF CLAIMS UNDER 35 U.S.C. § 101

Introduction and Framework

The Examiner rejects the claims under 35 U.S.C. § 101 because the claims as a whole are directed to an abstract idea and do not contain significantly more than the abstract idea so as to transform the claimed abstract idea into a patent-eligible application. Final Act. 6–7; Ans. 2–6.

In *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 70 (2012), and *Alice Corp. v. CLS Bank International*, 134 S. Ct. 2347, 2354 (2014), the Supreme Court explained that § 101 “contains an important implicit exception” for laws of nature, natural phenomena, and abstract ideas. *See Diamond v. Diehr*, 450 U.S. 175, 185 (1981). In *Mayo* and *Alice*, the Court set forth a two-step analytical framework for evaluating patent-eligible subject matter: (1) “determine whether the claims at issue are directed to” a patent-ineligible concept, such as an abstract idea; and, if so, (2) “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements” add

enough to transform the “nature of the claim” into “significantly more” than a patent-ineligible concept. *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 79); see *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016).

Step one in the *Mayo/Alice* framework involves looking at the “focus” of the claims at issue and their “character as a whole.” *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). Step two involves the search for an “inventive concept.” *Alice*, 134 S. Ct. at 2355; *Elec. Power Grp.*, 830 F.3d at 1353. For an inventive concept, “more is required than ‘well-understood, routine, conventional activity already engaged in’” by the relevant community. *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1047 (Fed. Cir. 2016) (quoting *Mayo*, 566 U.S. at 79–80).

Step One of Alice Framework

Turning to step one of the *Alice* framework, we are unpersuaded that the Examiner erred in concluding the claims are directed to an abstract idea. Final Act. 6–7; Ans. 2–4. In particular, the Examiner finds the claims are directed to order orchestration (performing or executing change orders through a series of data collection and modification steps), which is a fundamental economic practice and simply data manipulation. Final Act. 6; Ans. 2. The Examiner clarifies the finding, stating the claims are *directed to* order orchestration and the claims, *as a whole*, are directed to the abstract idea *without significantly more*. Ans. 2. Notably, the Examiner’s characterization is consistent with Appellants’ description of the invention as being “directed to a computer system . . . for the *orchestration of business processes*.” App. Br. 5 (stating that “independent Claims 1, 11 and 16 are

directed to a non-transitory computer readable medium, a method, and a system, respectively, that orchestrate business processes”); Spec. ¶ 1 (emphasis added); *id.* ¶ 6 (explaining that “change requests on long running orders typically require adjustment only on parts of the order,” but that “there is currently no way to selectively adjust a portion of an order in an efficient and automatic manner”).

Appellants contend “the claims fail to *recite* simply ‘performing and executing change orders and steps in a fulfillment process,’” and, because the claims recite many specific steps in orchestrating business processes, the claims are not directed to an abstract idea. App. Br. 8. Appellants argue the steps relating to automatically adjusting an executed step and using the saved modified state and the merged order object are not aspects of executing change order processes. *Id.* Appellants further assert the claims, when taken as an ordered combination, are not a fundamental economic practice and the Examiner has not supported the finding that the claims are directed to an abstract idea. App. Br. 8–9.

Appellants appear to conflate the question of whether the claims are *directed to* an abstract idea and whether the claims amount to significantly more than the abstract idea itself. Appellants do not identify a different focus of the claimed invention. Rather, as noted above, Appellants describe the claimed invention as being directed to orchestrating business processes. App. Br. 8; Spec ¶¶ 1, 6. Appellants’ contention that the claims are not directed to an abstract idea relies on the details of the particular steps recited to carry out the purpose of the invention.

Contrary to Appellants’ contentions, in the present claims, the details of how the claim performs the business process orchestration do not change

the nature or focus of the claimed invention—i.e., regardless of the particular steps, the claims as a whole are still *directed to* orchestrating business processes or executing change order processes. *See Elec. Power*, 830 F.3d at 1353. Thus, the claims’ character, as a whole, lies in longstanding conduct that exists apart from computers—i.e., determining how to execute a change to a previously submitted order.

Moreover, the claims are similar to claims the Federal Circuit has consistently found to be directed to an abstract idea. The claims recite methods implemented by processors for carrying out a change order in an orchestration process. The claimed steps merely relate to saving and modifying states of the process, executing steps of the process, receiving a change request, and modifying a step of the process and objects associated with the process. The Federal Circuit has ruled that claims covering the collection, manipulation, and display of data were directed to abstract ideas. *See, e.g., Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1047, 1054–56 & n.6 (Fed. Cir. 2017); *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1339–40 (Fed. Cir. 2017); *Elec. Power Grp.*, 830 F.3d at 1351–54; *see also Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass’n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (finding that “[t]he concept of data collection, recognition, and storage is undisputedly well-known,” and “humans have always performed these functions”). Appellants’ claims are directed to steps for executing an order process, including receiving a change to an object associated with the order. Accordingly, we agree with the Examiner’s findings because the claimed concept is similar to concepts found to be abstract by the Federal Circuit.

Finally, we do not find persuasive Appellants' argument that the Examiner has not established a prima face case or sufficiently supported the finding that the claims are directed to an abstract idea. The Federal Circuit has repeatedly explained 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 "PTO [Patent & Trademark Office] carries its procedural burden of establishing a prima facie case when its rejection satisfies 35 U.S.C. § 132, in 'notify[ing] the applicant . . . [by] stating the reasons for [its] rejection, or objection or requirement, 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) (alterations in original) (quoting 35 U.S.C. § 132). The PTO violates § 132 "when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection." *Chester v. Miller*, 906 F.2d 1574, 1578 (Fed. Cir. 1990). But if the PTO "adequately explain[s] the shortcomings it perceives . . . the burden shifts to the applicant to rebut the prima facie case with evidence and/or argument." *Hyatt*, 492 F.3d at 1370.

The Final Office Action adequately explains the § 101 rejection. The Examiner determined that the claims are directed to performing and executing change orders or steps in a fulfillment process. Final Act. 6. The Examiner reasoned that the claims are thus directed to "a fundamental economic practice and . . . simply a series of data collections and modifications." *Id.* The Examiner then determined:

The claims do not recite limitations that are “significantly more” than the abstract idea because the claims do not recite an improvement to another technology or technical field, an improvement to the functioning of the computer itself, or meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment. In addition, the limitations of the current claims are performed by the generically recited processor. The limitations are merely instructions to implement the abstract idea on a computer and require no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry.

Final Act. 6–7. The Examiner’s statements satisfy § 132 because they apply the *Mayo/Alice* two-step analytical framework and apprise Appellants of the reasons for the § 101 rejection under that analysis. As discussed in more detail below, Appellants recognize the Examiner’s *Mayo/Alice* analysis and present arguments regarding each step. *See* App. Br. 7–13. Appellants do not respond by alleging a failure to understand the rejection. *Id.*

Appellants’ contention concerning the absence of evidence supporting the § 101 rejection does not persuade us of Examiner error. “Patent eligibility under § 101 presents an issue of law.” *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1340 (Fed. Cir. 2013). There is no requirement that an examiner cite evidentiary support to conclude that a claim is directed to a patent-ineligible concept, such as an abstract idea. Appellants cite the “July 2015 Update: Subject Matter Eligibility” (“2015 Update”). App. Br. 9. The 2015 Update notes that “courts do not rely on evidence that a claimed concept is a judicial exception, and in most cases resolve the ultimate legal conclusion on eligibility without making any factual findings.” 2015 Update 6. Further, it instructs that a § 101 rejection may rest on “the knowledge generally

available to those in the art, on the case law precedent, on applicant’s own disclosure, or on evidence.” *Id.*

Appellants also argue the Examiner erred in rejecting the claims under § 101 because the claims are not similar to any of the examples in the 2015 Update. App. Br. 9–10. We disagree. The 2015 Update provides *illustrative* examples to “assist examiners and the public in applying the principles.” 2015 Update 1. Accordingly, we are unpersuaded the Examiner erred in concluding the claims are directed to an abstract idea.

Step Two of Alice Framework

Because the claims are “directed to an abstract idea,” we turn to step two of *Alice* to determine whether the limitations, when considered both “individually and ‘as an ordered combination’” contain an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application. *Alice*, 134 S. Ct. at 2355–58.

Appellants argue the claims recite significantly more than the abstract idea itself because: (1) the claims do not pre-empt every method of performing and executing change orders; (2) the claims improve a technological process; (3) the recited functions were not previously known; and (4) the ordered combination renders the claims patent eligible. App. Br. 10–13.

First, we address Appellants’ argument regarding pre-emption. It is true that the Supreme Court has characterized pre-emption as a driving concern for patent eligibility. *See Alice*, 134 S. Ct. at 2354. However, characterizing pre-emption as a driving concern for patent eligibility is not the same as characterizing pre-emption as the sole test for patent eligibility. “The Supreme Court has made clear that the principle of preemption is the

basis for the judicial exceptions to patentability” and “[f]or this reason, questions on preemption *are inherent in and resolved by the § 101 analysis.*” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (emphasis added) (citing *Alice*, 134 S. Ct. at 2354). However, “[w]hile preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Ariosa*, 788 F.3d at 1379; *Cf. OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362-63 (Fed. Cir. 2015) (“[T]hat the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract.”), *cert. denied*, 136 S. Ct. 701 (2015).

We are similarly unpersuaded by Appellants’ argument that the claims improve an existing technological process. Appellants contend that the claims improve a technological process because the Specification describes improving the processing speed of an orchestration system because the invention eliminates the need for special logic to handle change requests. App. Br. 11–12. The Examiner finds there is no evidence in the record or the claims that a technological process is improved and, rather, the claims attempt to improve the orchestration process, not the functioning of a computer itself. Ans. 5. The Examiner finds that, even to the extent Appellants’ claims improve the change order process, the elimination of algorithmic steps does not improve the speed of the processor or data access. With respect to this issue, we agree with and adopt the Examiner’s findings and conclusions.

Appellants’ final two arguments essentially contend that the automatically adjusting step renders the claims significantly more than the

abstract idea itself. App. Br. 12–13. Regarding consideration of the automatically adjusting step individually, Appellants argue the pending claims are similar to those found eligible in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014). *Id.* In support of Appellants’ contention that the ordered combination is significant, Appellants merely restate the claim language with emphasis on certain terms. *Id.* at 13. The Examiner explains that the automatically adjusting step is merely a programming change carried out on conventional computer hardware and, thus, does not rise to the level of providing “significantly more.” Ans. 6.

We agree with the Examiner’s finding that the claims require nothing more than a generic computer implementation on a general purpose computer or processor. Ans. 4–5 (quoting Spec. ¶¶ 329–330). Thus, the limitations, considered individually, do not contain an inventive concept. Next, we consider the limitations as an ordered combination. Unlike the claims in *DDR*, the present claims merely recite generic processors for carrying out the abstract idea. Contrary to Appellants’ assertion, the claims essentially recite an abstract idea with the instruction to apply it on a generic computer or processor. Appellants do not persuasively explain why the claims are similar to those in *DDR* or why the particular language renders the ordered combination significantly more than the abstract idea. Accordingly, we agree with the Examiner.

Moreover, “relying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible.” *OIP Techs.*, 788 F.3d at 1363. So, even if a computer performs the claimed

steps more quickly, we agree with the Examiner that using a computer in this conventional way does not supply an inventive concept. Ans. 4–7.

For the above reasons, Appellants have not persuaded us the Examiner erred in rejecting the claims under 35 U.S.C. § 101.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 103

The Examiner rejects each of the pending claims under 35 U.S.C. § 103(a) as being obvious over Chkodrov and Srinivasan, or Chkodrov, Srinivasan, and AAPA. Final Act. 7–14. For each of the claims, the Examiner relies on the combination of Chkodrov and Srinivasan for teaching or suggesting the automatically adjusting step. Final Act. 9 (citing Srinivasan 4:7–24; Chkodrov 7:34); Ans. 6–7. The extent of the Examiner’s explanation is that Srinivasan “describes and/or discloses execution of modified steps” and Chkodrov “states ‘Of course, the method may vary depending on the query-able format, the type of event item, etc., and may be specified internal or external to the event item.’ (emphasis added).” Final Act. 9; Ans. 7. Appellants contend Srinivasan describes a change order system that copies an existing order to a change order and replaces a change order’s object’s attributes, but fails to teach or suggest adjusting an already performed step. App. Br. 15.

We have reviewed Srinivasan and Chkodrov, and we agree with Appellants that the Examiner has not clearly explained how the proposed combination teaches or suggests the recited automatically adjusting step or pointed to sufficient supporting evidence. We agree with Appellants that Srinivasan clearly discusses modifying an existing order, including changing the value of an object’s attribute. Srinivasan 4:7–24. However, we find nothing in the passage cited by the Examiner to support a finding that

Srinivasan teaches automatically adjusting a step that has already been executed, as recited in the claims. Similarly, the cited portion of Chkodrov does not disclose or appear to contemplate the automatically adjusting step.

Without any apparent teaching or suggestion, explicit or implicit, in the cited portions of Srinivasan and Chkodrov of the automatically adjusting step, we are persuaded the Examiner erred in finding the combination of Srinivasan and Chkodrov teaches or suggests each limitation of the pending claims. *See In re Caveney*, 761 F.2d 671, 674 (Fed. Cir. 1985) (Examiner's burden of proving non-patentability is by a preponderance of the evidence); *see also In re Warner*, 379 F.2d 1011, 1017 (CCPA 1967) ("The Patent Office has the initial duty of supplying the factual basis for its rejection. It may not, because it may doubt that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis."). Accordingly, we do not sustain the Examiner's rejection of claims 1–3, 5, 8–13, 15–18, and 20 under 35 U.S.C. § 103(a).

Because this is determinative of the outcome with respect to the rejections under 35 U.S.C. § 103(a), we do not address Appellants' other arguments.

SUMMARY

We sustain the Examiner's rejection of claims 1–3, 5, 8–13, 15–18, and 20 under 35 U.S.C. § 101. We do not sustain the Examiner's rejection of claims 1–3, 5, 8–13, 15–18, and 20 under 35 U.S.C. § 103(a) as obvious in view of either Chkodrov and Srinivasan; or Chkodrov, Srinivasan, and AAPA.

Appeal 2016-004613
Application 12/718,625

DECISION

We affirm the Examiner's rejection of claims 1–3, 5, 8–13, 15–18, and 20.

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