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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MONIKA GUPTA, DEBDOOT MUKHERJEE, VIBHA SINGHAL SINHA, LIANGJIE ZHANG, and NIANJUN ZHOU

Appeal 2018-001298
Application 13/598,330
Technology Center 3600

Before ELENI MANTIS-MERCADER, JASON J. CHUNG, and JASON M. REPKO, *Administrative Patent Judges*.

CHUNG, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals the Final Rejection of claims 1–13. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

INVENTION

The invention relates to “[m]ethods and arrangements for dynamically facilitating project assembly.” Abstract. Claim 1 is illustrative of the invention and is reproduced below:

1. A method comprising:

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. According to Appellant, International Business Machines Corporation is the real party in interest. Appeal Br. 3.

utilizing a processor to execute computer code configured to perform the steps of:

submitting a project plan with a chosen set of plan components, wherein the chosen set of plan components comprises required hardware, software, and worker resources for carrying out a project associated with the project plan and a schedule associated with the project;

querying a cloud portal, having access to a plurality of hardware and software resources and having access to schedules of a plurality of worker resources, for information on the chosen plan components, wherein the cloud portal accesses a cloud comprising a plurality of preconfigured images comprising standardized configurations of hardware and software resources for use in a project, and wherein at least one of the plurality of preconfigured images is cloned in response to the query;

the at least one of the plurality of preconfigured images that is cloned comprises an image including the required hardware and software resources and fulfilling the chosen set of plan components and wherein at least one license is assigned, by the cloud portal, to the software resources included in the cloned at least one of the plurality of preconfigured images;

receiving, from the cloud portal, the cloned at least one of the plurality of preconfigured images comprising information on the chosen plan components;

generating plan recommendations based on the received cloned at least one of the plurality of preconfigured images, wherein the plan recommendations include at least one recommendation of another plan having at least one plan component differing from the chosen plan components and wherein the plan recommendations comprise recommended plans meeting the chosen set of plan components and a predetermined pricing constraint;

selecting a recommended plan; and

provisioning, by the cloud portal, the hardware, software, and worker resources necessary for carrying out the selected plan.

REJECTIONS

Claims 1–13 stand rejected under 35 U.S.C. § 101 as being directed to patent ineligible subject matter. Final Act. 3–5.

Claims 1–8, 11, and 12 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Motwani (US 2007/0260502 A1; published Nov. 8, 2007), Sabin (US 2013/0007840 A1; filed June 28, 2011), and Devarakonda (US 2013/0019015 A1; filed July 12, 2011). Final Act. 5–16.

Claims 9, 10, and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Motwani, Sabin, Devarakonda, and Dromgold (US 2007/0150327 A1; published June 28, 2007). Final Act. 16–18.

ANALYSIS

I. Claims 1–13 Rejected Under 35 U.S.C. § 101

A. Legal Principles

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[I]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework,

we first determine what concept the claim is “directed to.” *See Alice*, 573 U.S. at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, i.e., the use of a third party to mitigate settlement risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. (15 How.) 252, 267–68 (1854))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that “[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 187; *see also id.* at 192 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by

attempting to limit the use of the formula to a particular technological environment.” *Id.* (citing *Benson* and *Flook*); *see, e.g., id.* at 187 (“It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (quotation marks omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

The PTO recently published revised guidance on the application of § 101. USPTO’s January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance* (“Memorandum”). Under that guidance, we first look to whether the claim recites:

- (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and
- (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)).

Only if a claim (1) recites a judicial exception and (2) does not integrate that

exception into a practical application, do we then look to whether the claim:

- (3) adds a specific limitation beyond the judicial exception that are not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or
- (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

See Memorandum.

B. The Examiner’s Conclusions and Appellant’s Arguments

The Examiner concludes the present claims are analogous to the claims in *In re TLI Communications*, 823 F.3d 607 (Fed. Cir. 2016), which the Federal Circuit held recites certain methods of organizing human activity. Final Act. 4. The Examiner also determines the present claims do not amount to significantly more than an abstract idea itself because the abstract idea is implemented on generic components that are well-understood, routine, and conventional. *Id.* at 5.

Appellant argues the Examiner’s analysis does not establish a prima facie case of patent-ineligibility because it lacks sufficient explanation as to why the claims recite an abstract idea. Appeal Br. 13–14; Reply Br. 11–15. Appellant argues, similar to *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016) and *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299, 1308–14 (Fed. Cir. 2016), the present claims recite an improvement in computer-related technology because they generate plan recommendations. Appeal Br. 16–22; Reply Br. 20–23. Appellant further argues, similar to *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014), the present claims are necessarily rooted in technology to

solve problems specifically arising in the realm of technology because generation of plan recommendations based upon information received from a cloud portal is a computer problem. Appeal Br. 18–19; Reply Br. 18–19. Appellant argues, similar to *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016), the present claims recite a combination of non-conventional and non-generic arrangement of known, conventional elements, which results in an inventive concept of generating plan recommendations. Appeal Br. 15–16; Reply Br. 15–16. We disagree with Appellant.

C. Discussion

1. Step 2A, Prong 1

The emphasized portions of claim 1,² reproduced above (*see supra* at 1–2), recite managing personal behavior or interactions between people because these limitations recite consumers partaking in project management. *See also* Spec. ¶ 2 (“[I]n project management and execution, it can be very difficult to change or adjust the association resources in alignment with changing requirements.”); ¶ 47 (“User portable provides access to the cloud computing environment for consumers and system administrators.”); ¶ 54 (“Generally, in accordance with at least one embodiment of the invention, project manager 402 or another user, via interface 404, sends out a request 412 for booking images to portal 408.”); ¶ 56 (“[R]esponsive to request 412, portal 408 provides information in pricing, availability and utilization of

² Appellant does not argue claims 2–13 separately with particularity, but assert the § 101 rejection of those claims should be withdrawn for at least the same reasons as argued for independent claim 1. Appeal Br. 12–23. We, therefore, refer to these claims as the “present claims.”

images (422) back to . . . to project manager 402 (or another user) a recommended plan for utilizing or allocating images.”).

That is, under the broadest reasonable construction in light of the Specification, the present claims recite managing personal behavior or interactions between people. According to the Memorandum, managing personal behavior or interactions between people falls into the category of certain methods of organizing human activity. *See Memorandum.* Moreover, those certain methods of organizing human activity are a type of an abstract idea. *See id.*

We disagree with Appellant’s argument that the Examiner fails to present a prima facie case of patent ineligibility because the rejection lacks sufficient explanation to support each abstract idea characterization. Appeal Br. 13–14; Reply Br. 11–15. Patent eligibility under 35 U.S.C. § 101 is a question of law that is reviewable *de novo*. *See Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012). We are aware of no controlling authority that requires the Examiner to provide factual evidence under step one of the *Alice* framework to support a determination that a claim is directed to an abstract idea. The Federal Circuit has repeatedly noted 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 Examiner satisfies the burden of establishing a prima facie case under 35 U.S.C. § 132 by setting forth a rejection in a sufficiently articulate and informative manner. *In re Jung*, 637 F.3d 1356, 1363 (Fed. Cir. 2011). If the Examiner “adequately explain[s] the shortcomings . . . 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 by concluding the present claims recite certain methods of organizing human activity. Final Act. 5. The Examiner’s statements satisfy § 132(a) because they apply the *Alice* analytical framework and apprise Appellant of the reasons for the § 101 rejection under that framework. Appellant has not responded by alleging a failure to understand the rejection. Indeed, Appellant appears to understand and acknowledge the Examiner’s conclusion that the present claims recite certain methods of organizing human activity because Appellant responds to the Examiner’s conclusion that map the present claims to the claims in *TLI*. Appeal Br. 15.

Because the present claims recite managing personal behavior or interactions between people, which falls into the category of certain methods of organizing human activity (i.e., an abstract idea), we proceed to prong 2.

2. Step 2A, Prong 2

The present claims do not integrate the abstract idea into a practical application because they do not impose any meaningful limits on practicing the abstract idea. In particular, we disagree with Appellant’s argument that, similar to *Enfish* and *McRO*, the present claims recite an improvement in computer-related technology because they generate plan recommendations. Appeal Br. 16–22; Reply Br. 20–23.

Unlike the claims of *Enfish*, the present claims do not recite “a specific improvement to the way computers operate, embodied in the self-referential table.” *Enfish*, 822 F.3d at 1336. And unlike the claims of *McRO*, the present claims do not recite rules for lip-sync and facial-expression animation or an improvement in computer technology.

Instead, the present claims recite an abstract idea as discussed *supra*, in § I.C.1. or at best, improving an abstract idea—not a technological improvement. The Specification indicates the additional elements (i.e., “processor,” “cloud portal,” and “cloud”) recited in the present claims are merely tools used to implement the abstract idea. Spec. ¶¶ 31–37, 70, 87. Further, the additional elements, individually and in combination, do not integrate the judicial exception into a practical application.

Additionally, “a claim for a *new* abstract idea is still an abstract idea.” *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016). “[U]nder the *Mayo/Alice* framework, a claim directed to a newly discovered law of nature (or natural phenomenon or abstract idea) cannot rely on the novelty of that discovery for the inventive concept necessary for patent eligibility” *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376 (Fed. Cir. 2016) (citations omitted).

We also disagree with Appellant’s argument that, similar to *DDR*, the present claims are necessarily rooted in technology to solve problems specifically arising in the realm of technology because generation of plan recommendations based upon information received from a cloud portal is a computer problem. Appeal Br. 18–19; Reply Br. 18–19. Instead, the present claims recite an abstract idea using additional generic elements as tools to implement the abstract idea as discussed *supra* in §§ I.C.1., I.C.2. or at best, the present claims are rooted in generating plan recommendations and overcoming a problem arising in that area.

Appellant does not make any other arguments pertaining to step 2A, prong 2. Because the present claims recite an abstract idea that is not integrated into a practical application, we proceed to Step 2B.

3. *Step 2B*

We agree with the Examiner’s determination that the abstract idea is implemented on generic components that are well-understood, routine, and conventional. Final Act. 7 (citing Spec. 4:2–4, 5); Ans. 6. The Specification supports the Examiner’s determination in this regard because it explains that “processor,” “cloud portal,” and “cloud” are generic components. Spec. ¶¶ 31–37, 70, 87. Appellant’s Specification indicates these elements were well-understood, routine, and conventional components because it describes them at a high level of generality and in a manner that indicates that they are sufficiently well-known. *Id.* Moreover, the additional elements recited in the present claims, taken individually and in combination, do not result in the claim, as a whole, amounting to significantly more than the judicial exception.

We disagree with Appellant’s argument that, similar to *BASCOM*, the present claims recite a combination of non-conventional and non-generic arrangement of known, conventional elements, which results in an inventive concept of generating plan recommendations. Appeal Br. 15–16; Reply Br. 15–16. Instead, the present claims recite an abstract idea using generic components as discussed *supra*, in §§ I.C.1. and I.C.2. or at best, improving an abstract idea—not an inventive concept.

Appellant does not argue claims 2–13 separately with particularity, but assert the § 101 rejection of those claims should be withdrawn for at least the same reasons as argued for independent claim 1. Appeal Br. 12–23. Based on our review of the dependent claims, these claims do not recite any additional features that would transform the abstract idea embodied in claim 1 into an inventive concept. Accordingly, we sustain the Examiner’s

rejection of: (1) independent claim 1; and (2) dependent claims 2–13 under 35 U.S.C. § 101.

II. Claims 1–13 Rejected Under 35 U.S.C. § 103

A. Motivation to Combine

The Examiner finds a person having ordinary skill in the art (“PHOSITA”) would have combined Motwani’s utilization calculation and project planning with Sabin’s templates for cloning for the benefit of easily accessing duplicates of schedules for quick updating or rescheduling of a project while in any part of the world, which saves time and resources for planning. Final Act. 12. The Examiner finds a PHOSITA would have combined Motwani’s utilization calculation and project planning with Devarakonda’s software licensing in cloud applications for the benefit of providing a complete package of cloned technology needed to perform tasks. *Id.* at 12–13.

Appellant argues the Examiner fails to articulate a sufficient motivation why a PHOSITA would look to the teachings of Sabin to overcome the deficiencies of Motwani because Motwani has a field of endeavor directed to project-management software that permits allocation of resources to projects without tasks, whereas Sabin is directed to a system for preventing information disclosure via dynamic secure cloud resources. Appeal Br. 24–25; Reply Br. 24–25. Appellant argues the Examiner fails to articulate a sufficient motivation why a PHOSITA would look to the teachings of Devarakonda to overcome the deficiencies of Motwani because Devarakonda has a field of endeavor directed to an application that runs on the cloud and then allocating resources for that application running on the cloud, whereas Motwani is directed to project management software that

permits allocation of resources to projects without tasks. Appeal Br. 25–26; Reply Br. 25–26. We disagree with Appellant.

As an initial matter, we note that Appellant’s argument uses the incorrect test when analyzing field of endeavor/analogous art. The correct statement is that a reference “qualifies as prior art for an obviousness determination under § 103 only when it is analogous to the claimed invention.” *In re Klein*, 647 F.3d 1343, 1348 (Fed. Cir. 2011) (emphasis added). That is, we do not compare (1) Motwani with Sabin; and (2) Motwani with Devarakonda. Rather, we compare the present case’s written description and claims with (1) Motwani; (2) Sabin; and (3) Devarakonda.

Moreover, we find the Examiner has set forth sufficient “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). In particular, we agree with the Examiner that a PHOSITA would have combined Motwani’s utilization calculation and project planning with Sabin’s templates for cloning for the benefit of easily accessing duplicates of schedules for quick updating or rescheduling of a project while in any part of the world, which saves time and resources for planning. Final Act. 12. And we agree with the Examiner that a PHOSITA would have combined Motwani’s utilization calculation and project planning with Devarakonda’s software licensing in cloud applications for the benefit of providing a complete package of cloned technology needed to perform tasks. *Id.* at 12–13.

Accordingly, the Examiner did not err in their motivation to combine (1) Motwani and Sabin; and (2) Motwani and Devarakonda.

B. Motwani, Sabin, and Devarakonda Teach Claim 1's Limitations

The Examiner finds Motwani and Devarakonda teach the limitation generating plan recommendations based on the received cloned at least one of the plurality of preconfigured images, wherein the plan recommendations include at least one recommendation of another plan having at least one plan component differing from the chosen plan components and wherein the plan recommendations comprise recommended plans meeting the chosen set of plan components and a predetermined pricing constraint (hereinafter “first disputed limitation”) recited in claim 1. Final Act. 11 (citing Motwani ¶ 32, Fig. 2; Devarakonda ¶ 80). The Examiner finds Sabin teaches the limitation “cloud portal accesses a cloud comprising a plurality of preconfigured images comprising standardized configurations of hardware and software resources for use in a project” (hereinafter “second disputed limitation”) recited in claim 1. Final Act. 8 (citing Sabin ¶ 34).

Appellant argues paragraphs 14, 22, 59, and 24 of Motwani fail to teach the first disputed limitation. Appeal Br. 27; Reply Br. 27. Appellant argues paragraphs 7 and 25 of Sabin fail to teach the second disputed limitation. Appeal Br. 27–28; Reply Br. 27–28. Appellant argues Devarakonda fails to teach the first disputed limitation and second disputed limitation. Appeal Br. 28; Reply Br. 28. We disagree with Appellant.

As an initial matter, Appellant does not address or dispute the Examiner’s mapping of paragraph 32 of Motwani or paragraph 80 of Devarakonda to the first disputed limitation. Final Act. 11 (citing Motwani ¶ 32, Fig. 2; Devarakonda ¶ 80). Instead, Appellant argues paragraphs 14, 22, 59, and 24 of Motwani fail to teach the first disputed limitation. Appeal Br. 27; Reply Br. 27. We, therefore, sustain the Examiner’s finding that paragraph 32 of Motwani and paragraph 80 of Devarakonda teach the first

disputed limitation.

Appellant does not address or dispute the Examiner's mapping of paragraph 34 of Sabin to the second disputed limitation. Final Act. 8 (citing Sabin ¶ 34). Instead, Appellant argues paragraphs 7 and 25 of Sabin fail to teach the second disputed limitation. Appeal Br. 27–28; Reply Br. 27–28. We, therefore, sustain the Examiner's finding that paragraph 34 of Sabin teaches the second disputed limitation.

Appellant does not argue claims 2–13 separately with particularity, but asserts the § 103 rejection of those claims should be withdrawn for at least the same reasons as argued for independent claim 1. Appeal Br. 23–28. Accordingly, we sustain the Examiner's rejection of (1) independent claim 1 and (2) dependent claims 2–13 under 35 U.S.C. § 103.

We have only considered those arguments that Appellant actually raised in the Briefs. Arguments Appellant could have made, but chose not to make, in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv).

CONCLUSION

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–13	101	Eligibility	1–13	
1–8, 11, 12	103	Motwani, Sabin, Devarakonda,	1–8, 11, 12	
9, 10, 13	103	Motwani, Sabin, Devarakonda, Dromgold	9, 10, 13	
Overall Outcome			1–13	

Appeal 2018-001298
Application 13/598,330

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. § 1.136(a)(1)(iv).

AFFIRMED