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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte XIAOHUAN LI

Appeal 2020-001325
Application 14/630,092
Technology Center 3600

Before ERIC S. FRAHM, JOHNNY A. KUMAR, and
BETH Z. SHAW, *Administrative Patent Judges*.

KUMAR, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals the Final Rejection of claims 1, 2, 4, 6, 7, 9–14, and 16–21. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

INVENTION

The claimed invention relates to a content publication system that allows a content provider to provide near real-time content for inclusion in content items published within online resources. Spec. ¶ 13. Claim 1 is illustrative of the invention and is reproduced below:

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

1. A method comprising:

generating, by *a content publication system* including *one or more processors*, a content item template for a content item configured for publication within one or more resources provided by one or more publishers, the content item associated with a content provider, the generating including creating a content item template that includes a set of content and one or more fields configured to be populated at a later time based on subsequent input from the content provider;

storing, by the content publication system, the generated content item template within *a memory* for later publication;

prior to receiving the subsequent input from the content provider, withholding the content item from publication through auctions;

receiving, by the content publication system, the subsequent input from the content provider through *a social media interface* that is separate from *an interface* of the content publication system;

detecting, by the one or more processors, a trigger signal indicating that the content item is available for entry into an auction based on a current time being after a start time of a live event, wherein the trigger signal is defined by the content provider;

entering, by the content publication system, the content item into an auction to publish content items within a resource provided by a publisher only after detecting the trigger signal and receiving the subsequent input;

populating, by the content publication system, the stored content item template with the subsequent input data received from the content provider through the social media interface to generate the content item prior to publication of the content

item within the resource provided by the publisher based on an outcome of the auction; and

providing the content item for presentation in the resource provided by the publisher.

Appeal Br. 13–14 (Claims App.) (emphases added to denote additional, i.e., non-abstract, elements).

REJECTIONS

Claims 1, 2, 4, 6, 7, 9–14, and 16–21 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 3–8.

Claims 1, 4, 6, 7, 12, 14, 16, 17, 20, and 21 stand rejected under 35 U.S.C. § 103 as being unpatentable over D’Ambrosio et al. (US 2010/0324973 A1; published Dec. 23, 2010) (“D’Ambrosio”), Rose et al. (US 2008/0313011 A1; published Dec. 18, 2008) (“Rose”), and DeAngelis (US 2009/0012868 A1; published Jan. 8, 2009). Final Act. 9–16.

Claim 2 stands rejected under 35 U.S.C. § 103 as being unpatentable over D’Ambrosio, Rose, DeAngelis, and Moxley et al. (US 2011/0276397 A1; published Nov. 10, 2011) (“Moxley”). Final Act. 16–17.

Claims 9, 11, and 18 stand rejected under 35 U.S.C. § 103 as being unpatentable over D’Ambrosio, Rose, DeAngelis, and Makeev et al. (US 2014/0075293 A1; published Mar. 13, 2014) (“Makeev”). Final Act. 17–20.

Claims 10 and 19 stand rejected under 35 U.S.C. § 103 as being unpatentable over D’Ambrosio, Rose, DeAngelis, Makeev, and Zhang (US 2015/0331583 A1; published Nov. 19, 2015). Final Act. 20–21.

Claim 13 stands rejected under 35 U.S.C. § 103 as being unpatentable over D’Ambrosio, Rose, DeAngelis, and Lundy et al. (US 7,293,064 B1; issued Nov. 6, 2007) (“Lundy”). Final Act. 21–22.

ANALYSIS

SECTION 101 REJECTION

A. Principles of Law

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 U.S. Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]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 Court’s two-part 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, 67 (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. 252, 267–68 (1853))); 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 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 191 (“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 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.* (citation omitted) (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.* (alterations in original) (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.*

B. USPTO Section 101 Guidance

In January 2019, the U.S. Patent and Trademark Office (USPTO) published revised guidance on the application of § 101. 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“2019 Revised Guidance”).² “All USPTO personnel are, as a matter of internal agency management, expected to follow the guidance.” *Id.* at 51; *see also* Update at 1.

Under the 2019 Revised Guidance and the Update, 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) (“Step 2A, Prong One”); and

² In response to received public comments, the Office issued further guidance on October 17, 2019, clarifying the 2019 Revised Guidance. USPTO, *October 2019 Update: Subject Matter Eligibility* (the “Update”) (available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf).

(2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 2018)) (“Step 2A, Prong Two”).³

2019 Revised Guidance, 84 Fed. Reg. at 52–55.

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look, under Step 2B, to whether the claim:

(3) adds a specific limitation beyond the judicial exception that is 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.

2019 Revised Guidance, 84 Fed. Reg. at 52–56.

C. The Examiner’s Rejection and Appellant’s Arguments

The Examiner concludes that the present claims recite certain methods of organizing human activity. Final Act. 5–6. The Examiner further concludes that the abstract idea is not integrated into a practical application, because the additional elements amount to mere instructions to apply the judicial exception using generic computer components. *Id.* at 6–7. The Examiner finds that the claims do not recite additional elements that go

³ This evaluation is performed by (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception, and (b) evaluating those additional elements individually and in combination to determine whether the claim as a whole integrates the exception into a practical application. *See* 2019 Revised Guidance - Section III(A)(2), 84 Fed. Reg. at 54–55.

beyond what is well-understood, routine, and conventional activity (*id.* at 7–8 (citing MPEP § 2106.05(d)(II); *Versata Dev. Group v. SAP Am., Inc.*, 793 F.3d 1306, 1334 (Fed. Cir. 2015); *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014))), such that they do not amount to significantly more than the judicial exception. Final Act. 7–8.

Appellant disagrees that the claims are not integrated into a practical application, and argues that the Examiner ignores the actual claim language. Appeal Br. 7–11. In particular, Appellant contends that the claims “provide a technical solution to the technical problem of how to enable the incorporation of real-time information into a content item that is required to undergo a long build process before it can be distributed” (*id.* at 7), by allowing the content provider to complete a partially filled template with information without having to again access the content publication system, that allows for efficiency, reduction of delays, and publication of time-sensitive content in a timely fashion. *Id.* at 7–9 (citing Spec. ¶¶ 13, 18).

D. Step 2A, Prong 1

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). Claim 1 requires generating a content item template for a content item configured for publication, storing the template for later publication, withholding the content item from publication through auctions, receiving subsequent input from the content provider, detecting a trigger signal indicating that the content item is available for entry into an auction, entering the content item into an auction to publish content items, populating the stored content item template with the subsequent input data to generate

the content item, and providing the content item for presentation in the resource provided by the published, and we therefore conclude the non-emphasized portions of claim 1, reproduced above (*see supra* at 2–3), recite concepts relating to commercial or legal interactions.

The present claims recite concepts relating to commercial or legal interactions, which fall into the category of certain methods of organizing human activity. *See* 2019 Revised Guidance, 84 Fed. Reg. at 52. Moreover, those certain methods of organizing human activity are a type of abstract idea. *See id.* Namely, the claims recite features such as “generat[ing] . . . a content item template for a content item configurat[ion] for publication within one or more resources provided by one or more publishers”; “stor[ing] . . . the generated content item template . . . for later publication”; “withhold[ing] the content item from publication through auctions”; “detect[ing] . . . that the content item is available for entry into an auction”; “enter[ing] . . . the content item into an auction to publish content items within a resource provided by a publisher”; and “provid[ing] the content item for presentation in the resource provided by the publisher,” which are all features directed to advertising, marketing or sales activities or behaviors, or business relations, and therefore fall under certain methods of organizing human activity.

Nevertheless, we must still determine whether the abstract idea is integrated into a practical application, namely, whether the claim applies, relies on, or uses the abstract idea in a manner that imposes a meaningful limit on the abstract idea, such that the claim is more than a drafting effort designed to monopolize the abstract idea. *See* 2019 Revised Guidance, 84 Fed. Reg. at 54–55. We therefore (1) identify whether there are any

additional recited elements beyond the abstract idea, and (2) evaluate those elements both individually and collectively to determine whether they integrate the exception into a practical application. *See id.*

Accordingly, we proceed to prong 2.

E. Step 2A, Prong 2

Here, the only elements in the claims beyond the abstract idea are “content publication system,” “one or more processors,” “a memory,” “a social media interface,” “an interface,” “at least one computing device,”⁴ and “at least one memory.”⁵ *See* 2019 Revised Guidance, 84 Fed. Reg. at 52. We determine that the additional elements of the present claims integrate the abstract idea into a practical application that uses the judicial exception in a manner that imposes a meaningful limit on the judicial exception for the following reasons.

In this case, Appellant identifies persuasively how the Specification sets forth an improvement in technology. Appellant argues that the claimed invention includes technological improvements, such as allowing the content provider to complete a partially filled template with information without having to again access the content publication system, which allows for efficiency, reduction of delays, and publication of time-sensitive content in a timely fashion. Appeal Br. 7–9 (citing Spec. ¶¶ 13, 18).

Appellant’s Specification discloses that the claimed invention allows content providers to use a content item template that includes a set of content, and provide subsequent input through a separate social media interface that allows for publishing of time-sensitive content. *See* claim 1;

⁴ This additional element is recited only in claim 12. *See* Claims App.

⁵ This additional element is recited only in claim 12. *See* Claims App.

Spec. ¶¶ 13, 15, 17–18, 39–40. We therefore agree with Appellant’s argument that:

the claimed subject matter *improves the functioning of content publication systems by using disparate systems* in a way that reduces the amount of time required to publish time sensitive information, thereby enabling the publication of time-sensitive content in a timely fashion, and *by way of a system that differs from the system that contains the content item*.

Appeal Br. 8 (emphases added). In other words, the present claims recite an improvement to the content publication system, because “a content provider can finish populating a content item template that is stored by the content publication system by way of subsequent inputs through a social media interface that is not part of the content publication system.” *Id.* at 9.

As such, based on the record before us, we are persuaded that the Examiner erred in determining that the claims are directed to an abstract idea. Because we determine that the present claims integrate the abstract idea into a practical application that uses the judicial exception in a manner that imposes a meaningful limit on the judicial exception, we need not proceed to step 2B. Accordingly, we reverse the Examiner’s decision to reject claims 1, 2, 4, 6, 7, 9–14, and 16–21 as directed to patent ineligible subject matter.

SECTION 103 REJECTION

Claim 1 recites, *inter alia*: “receiving . . . the subsequent input from the content provider through a social media interface that is separate from an interface of the content publication system.” *See* Appeal Br. 13 (Claims App.).

The Examiner finds that D’Ambrosio and Rose teach the disputed limitation above. Final Act. 10, 12. In particular, the Examiner finds that D’Ambrosio teaches:

where the webpage provider may submit a preference specification, such as, for example, a list of ordered preferences, to the request-time web content auction service 150. As discussed herein, this preference specification may be used by the request-time web content auction service 150 to generate a willingness-to-pay function for the webpage provider.

Final Act. 10 (emphases omitted) (citing D’Ambrosio ¶ 41). The Examiner further cites, from Rose:

[O]nce the campaign launches, the campaign is accessible to users via web servers that retrieve information concerning the campaign from the database. . . . [T]he information entered via the template is used to generate a campaign home page (often referred to as a landing page). The landing page can be further enhanced using a HTML editor. A screen shot of a WYSIWIG HTML editor such as the FCKEditor.net distributed by Frederico Caldeira Knabben of Warsaw, Poland, provided by a campaign creator application to enable the enhancement of a campaign landing page generated from a template in accordance with an embodiment of the invention is shown in FIG. 3E.

Final Act. 12 (emphases omitted) (citing Rose ¶¶ 110, 130, Fig. 3E).

Appellant argues that the combination of D’Ambrosio, Rose, and DeAngelis fails to teach the limitations of claim 1, at least because the Examiner’s cited portions of D’Ambrosio and Rose fail to teach or suggest the disputed limitation. Appeal Br. 4–6.

Based on our review of D’Ambrosio and Rose, we are persuaded by Appellant’s contention that the cited portions of D’Ambrosio teach

identifying content using a web page provider's preferences (Appeal Br. 4–5; *see also* D'Ambrosio ¶ 41); and the cited portions of Rose teach presentation of a landing page. Appeal Br. 6; *see also* Rose ¶¶ 110, 130, Fig. 3E. In other words, it is not clear how D'Ambrosio and Rose meet the disputed claim limitations because the Examiner has not identified any elements in these two references that teach receiving subsequent input through a social media interface that is separate from an interface of the content publication system.

Therefore, Appellant's arguments have persuaded us of error in the Examiner's rejections of independent claim 1 and independent claims 12 and 20, which recite similar limitations. The Examiner has not identified any teachings in the other applied prior art that would make up for the above-mentioned deficiency, nor does the Answer provide assistance in this regard. *See* Final Act. 8–13; Ans. 5. Accordingly, we do not sustain the rejections of claims 1, 12, and 20, as well as claims 2, 4, 6, 7, 9–11, 13, 14, 16–19, and 21 depending therefrom.

CONCLUSION

The Examiner erred in rejecting claims 1, 2, 4, 6, 7, 9–14, and 16–21 as being subject-matter ineligible under 35 U.S.C. § 101.

The Examiner erred in rejecting claims 1, 2, 4, 6, 7, 9–14, and 16–21 as being obvious under 35 U.S.C. § 103, over the combined teachings and suggestions of the cited references.

Claim(s) Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 2, 4, 6, 7, 9-14, 16- 21	101	Eligibility		1, 2, 4, 6, 7, 9-14, 16- 21
1, 4, 6, 7, 12, 14, 16, 17, 20, 21	103	D'Ambrosio, Rose, DeAngelis		1, 4, 6, 7, 12, 14, 16, 17, 20, 21
2	103	D'Ambrosio, Rose, DeAngelis, Moxley		2
9, 11, 18	103	D'Ambrosio, Rose, DeAngelis, Makeev		9, 11, 18
10, 19	103	D'Ambrosio, Rose, DeAngelis, Makeev, Zhang		10, 19
13	103	D'Ambrosio, Rose, DeAngelis, Lundy		13
Overall Outcome				1, 2, 4, 6, 7, 9-14, 16- 21

REVERSED