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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte BYRON WILLIAM REESE

Appeal 2018-006625
Application 13/560,834
Technology Center 3600

Before CAROLYN D. THOMAS, NABEEL U. KHAN, and PHILLIP A. BENNETT, *Administrative Patent Judges.*

KHAN, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the Examiner's decision to reject claims 1, 2, 7, and 10–21. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

[1] We use the word Appellant to refer to "applicant" as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as Leaf Group, Ltd. Appeal Br. 2.

CLAIMED SUBJECT MATTER

Appellant describes the invention as relating to

> [s]ystems and methods are provided . . . for presentation of links to content to a user on webpages of a website where titles associated with the links are tuned to the user's psychographic variables. In one embodiment, a respective plurality of titles is generated for each of a plurality of content items. At least some titles are tagged with psychographic tags. When a user accesses content by selecting a link having a title that is tagged with one or more psychographic tags, the system stores a representation of such tags in association with the user. When additional links for recommended content are displayed to the user, the system selects titles for links to such content based on psychographic tags associated with the user and the titles.

Abstract.

Claim 1, reproduced below, is illustrative of the claimed subject matter:

> 1. A method comprising:
>
> generating, by a computing device coupled to the Internet, a respective plurality of titles for each content item of a plurality of content items;
>
> tagging, by the computing device, for each of at least a subset of the plurality of content items, at least one of the respective plurality of titles of the respective content item with at least one respective psychographic tag, wherein the at least one respective psychographic tag represents an attribute or a structure of the at least one of the respective plurality of titles;
>
> receiving, by the computing device, a first request for a first webpage, the request for a first webpage including at least one received psychographic tag;
>
> requesting, by the computing device, at least one content item in response to receiving a request for a first webpage, the at least one content item representing content related to the first webpage;
>
> identifying, by the computing device, a selected title of the plurality of titles of the at least one content item that is tagged

with a first psychographic tag, wherein the selected title is selected based on the at least one received psychographic tag;

adding, by the computing device, a first link to the at least one content item to the first webpage, the first link including the selected title;

transmitting, by the computing device over the Internet, the first webpage including the first link to the end user device;

receiving, by the computing device over the Internet, a selection of the first link on the first webpage by a user viewing the first webpage on the end user device; and

associating, by the computing device, the user with the first psychographic tag, wherein associating the user with the first psychographic tag comprises causing, by the computing device, a representation of the psychographic tag to be stored in a cookie on the end user device, wherein storage of the first psychographic tag in the cookie is performed via a widget embedded in the first webpage that automatically stores the psychographic tag in the cookie in response to selection of the first link by the user.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Brunsman	US 2012/0030015 A1	Feb. 2, 2012
Maharajh	US 2008/0195664 A1	Aug. 14, 2008
Olliphant	US 2008/0235123 A1	Sept. 25, 2008
Coyer	US 8,856,331 B2	Oct. 7, 2014
Welsh	US 6,757,691 B1	June 29, 2004
Cox	US 2005/0076061 A1	Apr. 7, 2005
Chaikin	US 2011/0161847 A1	June 30, 2011

REJECTIONS

1. Claims 1, 2, 7, and 10–20 stand rejected under 35 U.S.C. § 101 as directed to a judicial exception to patentable subject matter. Non-Final Act. 3–5.

2. Claims 1, 2, 7, 10, 16, 17, and 18–21 stand rejected under 35 U.S.C. § 103 as unpatentable over Brunsman, Maharajh, and Olliphant. Non-Final Act. 5–11.[2]

3. Claim 11 stands rejected under 35 U.S.C. § 103 as unpatentable over Brunsman, Maharajh, Olliphant, and Coyer. Non-Final Act. 11–12.

4. Claim 12 stands rejected under 35 U.S.C. § 103 as unpatentable over Brunsman, Maharajh, Olliphant, and Welsh. Non-Final Act. 12–13.

5. Claims 13 and 14 stand rejected under 35 U.S.C. § 103 as unpatentable over Brunsman, Maharajh, Olliphant, and Cox. Non-Final Act. 13–16.

6. Claim 15 stands rejected under 35 U.S.C. § 103 as unpatentable over Brunsman, Maharajh, Olliphant, and Chaikin. Non-Final Act. 16–17.

OPINION

REJECTION UNDER 35 U.S.C. § 101

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: "[l]aws of nature, natural phenomena, and abstract

[2] Although claim 8 appears in the subheading of this rejection in the Non-Final Rejection (*see* Non-Final Act. 5), the Examiner does not reject it under the merits of 35 U.S.C. § 103 because the Examiner finds claim 8 has improper dependency (*see* Non-Final Act. 9). If prosecution continues, the Examiner may want to determine whether the aforementioned dependency issue raises indefiniteness issues under 35 U.S.C. § 112.

ideas" are not patentable. *E.g.*, *Alice Corp. Pty. Ltd. 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*. *Alice*, 573 U.S. 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 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 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 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 United State Patent and Trademark Office published revised guidance on the application of § 101 (2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019)) and recently, published an update to that guidance (October 2019 Patent Eligibility Guidance Update, 84 Fed. Reg. 55,942 (Oct. 18, 2019)) (jointly referred to as

"Guidance"). Under the Guidance, in determining whether a claim falls within an excluded category, we first look, under step 2A of the Guidance, 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 move to step 2B of the Guidance and look 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.

See Guidance, 84 Fed. Reg. at 56.

Prong One of Step 2A

The Examiner determines claims 1, 2, 7, and 10–20 to be "directed towards tagging content with attributes and associated tags with users, and selecting/presenting of content titles/content on a webpage." Non-Final Act. 3. To support the determination, the Examiner cites to various limitations including:

> tagging, by the computing device, for each of at least a subset of the plurality of content items, at least one of the respective plurality of titles of the respective content item with at least one respective psychographic tag, wherein the at least one

> respective psychographic tag represents an attribute or a structure of the at least one of the respective plurality of titles

and finds that they are "drawn to the abstract idea." Non-Final Act. 3.

In order to determine whether a claim is directed to an abstract idea, we first determine, under prong one of step 2A, whether the claim *recites* an abstract idea. The Guidance identifies three judicially-excepted groupings: (1) mathematical concepts, (2) certain methods of organizing human activity such as fundamental economic practices and commercial interactions, and (3) mental processes.

We agree with the Examiner that at least some of the limitations of claim 1 recite an abstract idea. For example, claim 1 recites (1) "generating . . . a respective plurality of titles for each content item of a plurality of content items," (2) "tagging . . . at least one of the respective plurality of titles . . . with at least one respective psychographic tag, wherein the at least one respective psychographic tag represents an attribute or a structure of the at least one of the respective plurality of titles," and (3) identifying . . . a selected title of the plurality of titles of the at least one content item that is tagged with a first psychographic tag, wherein the selected title is selected based on the at least one received psychographic tag."

We determine that generating a plurality of titles for a content item (such as an online article), tagging the titles with a psychographic tag that represents attributes of the titles and identifying a selected title based on at least one psychographic tag are steps that involve mental processes. Generating a plurality of titles for an article, whether online or otherwise, is an act that involves mental creativity. Selecting one of those titles based on the titles psychographic tag involves judgment and is also a step that may be performed mentally. The Specification explains that psychographic tags

"are attributes about the title and how it is structured as to . . . what emotions the title designed to appeal to." Spec. ¶ 63. "[P]sychographic[] variables . . . refer to variables . . . that characterize personality, values, attitudes, interests, or lifestyles." Spec. ¶ 18. Thus, selecting a title based on a psychographic tag, refers to selecting a title based on the emotional qualities of the title. Such selection can be performed mentally.

Mental processes are one of the categories that the Guidance recognizes as constituting an abstract idea. *See* Guidance, 84 Fed. Reg. at 52. Thus, we determine the pending claims recite an abstract idea under prong one of step 2A.

Prong Two of Step 2A

Under prong 2 of step 2A of the Guidance we determine whether the claim as whole integrates the recited abstract idea into a practical application of the abstract idea. A claim that integrates a judicial exception into a practical application will apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception. To evaluate whether the claims integrate the abstract idea into a practical application, we identify whether there are any additional elements recited beyond the abstract idea, and evaluate those additional elements individually and in combination.

Some exemplary considerations laid out by the Supreme Court and the Federal Circuit indicative that an additional element integrates an abstract idea into a practical application include (i) an improvement in the functioning of a computer or to another technological field, (ii) an application of the judicial exception with, or by use of, a particular machine,

(iii) a transformation or reduction of a particular article to a different state or thing, or (iv) a use of the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment. *See* MPEP §§ 2106.05(a)–(c), (e)–(h).

In the context of prong two of step 2A, Appellant argues "the claims contain numerous limitations that cannot reasonable be read as being performed by a human being or by pen and paper." Appeal Br. 15. For example, Appellant argues "the claims rely on the technical nature of the Internet: the format of webpages, the structure of webpages (e.g., having a title), the internal workings of web browser (e.g., use of cookies), and computer-implemented title generation algorithms that are able to consistently updated based on user interactions with a webpage." Appeal Br. 15–16.

Reviewing the claim limitations as a whole, we agree with Appellant. Here, we determine the claim recites additional elements that integrate the abstract idea into a practical application. In particular we find that certain claim limitations improve the functioning of a computer or other technological field. Specifically, we find limitations such as (1) "receiving, by the computing device, a first request for a first webpage, the request for a first webpage including at least one received psychographic tag," (2) "adding, by the computing device, a first link to the at least one content item to the first webpage, the first link including the selected title," (3) "transmitting, by the computing device over the Internet, the first webpage including the first link to the end user device," and (4) "associating the user with the first psychographic tag . . . causing, by the computing device, a representation of the psychographic tag to be stored in a cookie on the end

user device, wherein storage . . . is performed via a widget embedded in the first webpage" to be technical in nature and directed to improving the functionality of a computer to select titles for online content. The claim makes clear that, although psychographic tags represent attributes of titles, they are implemented in a technological manner as information that can be stored in a cookie, the storage of which is performed by a widget embedded in a webpage, and which may be transmitted along with webpages over the Internet.

These limitations restrict the recited mental processes to the technological environment of the Internet and do so in a way that provides a technological solution that improves the computers that implement the invention. For the foregoing reasons we determine the claims integrate the recited mental steps into a practical application of those mental steps.

Step 2B of the Guidance

Because we determine the claims integrate the recited abstract idea into a practical application, we need not analyze the claims under step 2B of the Guidance.

Conclusion

Accordingly, we do not sustain the Examiner's rejection of claims 1, 2, 7, and 10–20 under 35 U.S.C. § 101.

REJECTION UNDER 35 U.S.C. § 103

The Examiner finds Brunsman teaches selecting titles for content based on various attributes of the title. Non-Final Act. 6 (citing Brunsman ¶ 70). The Examiner finds the attributes of Brunsman's titles to be similar to

the claimed tags. Non-Final Act. 6. Brunsman's tags, however, are not disclosed as "psychographic tags" and thus the Examiner relies on Maharajh, which teaches selecting content based on psychographic tags. Non-Final Act. 6 (citing Maharajh ¶¶ 174, 185, 190). The combination of Brunsman and Maharajh, according to the Examiner, teaches selecting titles for content based on psychographic tags. We agree with the Examiner's findings and conclusions.

Appellant argues "Maharajh fails to teach or suggest a psychographic *tag*." Appeal Br. 22. Moreover, Appellant argues Maharajh does not teach that the "psychographic *tag* is generated based on the 'attribute or a structure of the at least one of the respective plurality of titles.'" Appeal Br. 22. Further, Appellant argues "the 'psychographics' of Maharajh are not related to the title of content but rather are 'associated with a user.'" Appeal Br. 22. Turning to Brunsman, Appellant argues that although Brunsman selects titles, it does so based on text processing rules, rather than selecting titles based on tags.

The aforementioned arguments are unpersuasive of Examiner error. Appellant's argument that Maharajh fails to teach or suggest a psychographic tag is unpersuasive. Maharajh teaches applying tags to content (Maharajh ¶¶ 3, 174) and teaches that "[t]ags 108 may also link up with other information such as information associated with a user including . . . psychographics and the like" (Maharajh ¶ 185). Thus, we agree with the Examiner that Maharajh teaches psychographic tags.

Appellant's argument that Maharajh does not teach that the "psychographic *tag* is generated based on the 'attribute or a structure of the at least one of the respective plurality of titles'" (Appeal Br. 22) is also

unpersuasive. The Examiner does not rely on Maharajh alone as teaching the aforementioned limitation, but rather relies on Brunsman's disclosure of attributes of titles as teaching tags of those titles. The Specification supports such a conclusion, explaining that "psychographic tags are attributes about the title and how it is structured as to, *inter alia*, without limitation, what emotions the title designed to appeal to." Spec. ¶ 63. Thus, we agree with the Examiner that Brunsman's attributes are analogous to the claimed tags.

Appellant's argument that "the 'psychographics' of Maharajh are not related to the title of content but rather are 'associated with a user'" (Appeal Br. 22) attacks Maharajh individually and Appellant's argument that Brunsman selects titles based on text processing rules, rather than selecting titles based on tags, attacks Brunsman individually. As explained above, the Examiner finds Brunsman teaches selecting titles for content based on attributes that are related to the title of content (Non-Final Act. 6; *see also* Brunsman ¶ 70) and relies on Maharajh to teach that the tags associated with content can include psychographic information. When Maharajh's teachings are applied to Brunsman, we agree with the Examiner that the combination teaches selecting titles for content based on psychographic tags of the titles of content as claimed.

In addition to the above arguments, Appellant also argues "Maharajh never discloses any type of tag being 'received' by a server-side system in the manner claimed. Rather, Maharajh focuses primarily on transmitting tags to users." Appeal Br. 24. To the extent Appellant's argument is based on the tag being received "by a server-side system" we find the argument unpersuasive. As the Examiner points out, the claims as recited do not require a tag to be received "by a server-side system." As to the remainder

of the argument, the Examiner finds Maharajh discloses that "a user may request that the content manager . . . discover content with an album tag . . . and deliver the content to a user's device" (Ans. 11 (citing Maharajh ¶¶ 10, 176)) and that this disclosure teaches "receiving . . . a first request for a first webpage including at least one received psychographic tag." Appellant does not address this finding in the Reply Brief and has therefore waived any arguments to the contrary. *See Hyatt v. Dudas*, 551 F.3d 1307, 1314 (Fed. Cir. 2008) ("When the appellant fails to contest a ground of rejection to the Board, . . . the Board may treat any argument with respect to that ground of rejection as waived."). Accordingly, we do not find Appellant's arguments persuasive of Examiner error.

Accordingly, we sustain the Examiner's rejection of independent claim 1. Appellant does not make any arguments for separate patentability of any of the other independent claims, nor of any of the dependent claims. Thus, we sustain the Examiner's rejections of independent claims 17 and 19, and of dependent claims 2, 7, 10–16, 18, 20, and 21.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 2, 7, 10–20	101	Eligibility		1, 2, 7, 10–20
1, 2, 7, 10, 16, 17, 18–21	103	Brunsman, Maharajh, Olliphant	1, 2, 7, 10, 16, 17, 18–21	
11	103	Brunsman, Maharajh, Olliphant, Coyer	11	

12	103	Brunsman, Maharajh, Olliphant, Welsh	12	
13, 14	103	Brunsman, Maharajh, Olliphant, Cox	13, 14	
15	103	Brunsman, Maharajh, Olliphant, Chaikin	15	
Overall Outcome			1, 2, 7, 10–21	

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2017).

AFFIRMED