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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* JOHN B. FERBER, SCOTT FERBER, STEIN E. KRETSINGER,  
ROBERT LUENBERGER, and DAVID LUENBERGER

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Appeal 2016-008650  
Application 13/612,625<sup>1</sup>  
Technology Center 3600

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Before ANTON W. FETTING, BRUCE T. WIEDER, and  
SHEILA F. McSHANE, *Administrative Patent Judges*.

McSHANE, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants seek our review under 35 U.S.C. § 134(a) of the Examiner's non-final decision to reject claims 2–59. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> According to Appellants, the real party in interest is Facebook, Inc. Appeal Brief filed October 26, 2015, hereinafter “Appeal Br.,” 2.

## BACKGROUND

The invention relates to optimal placement of ads on Web pages. Specification, hereinafter “Spec.,” 1:10–12. The invention is directed to the estimation of potential ad selection probabilities, and maximizing the overall ad placement revenue. *Id.* at 5:2–6, 5:11–13.

Method claim 2 and claim 28 are reproduced from pages 27 and 33, respectively, of the Appeal Brief (Claims App.) as follows:

2. A method comprising:

identifying an advertising campaign, the advertising campaign having an associated period of time and an associated delivery parameter;

determining, by at least one processor, a target delivery rate for the advertisement campaign;

serving advertisements of a plurality of advertisements to one or more marketing media, the plurality of advertisements including one or more advertisements associated with the advertising campaign and one or more advertisements not associated with the advertising campaign;

determining, by the at least one processor, that the target delivery rate for the advertisement campaign has been exceeded by a predetermined amount;

serving advertisements associated with the advertising campaign if the predetermined amount is within a pre-set tolerance; and

serving only advertisements not associated with the advertising campaign for a remainder of a sub-period of time if the predetermined amount exceeds the pre-set tolerance.

28. A method comprising:

identifying an advertising campaign, the advertising campaign having an associated period of time and an associated number of impressions or clicks;

determining, by at least one processor, a first delivery rate for the period of time;

serving advertisements associated with the advertising campaign within a pre-set tolerance of the first delivery rate during a first portion of the period of time;

determining that the first delivery rate is exceeded by a predetermined amount;

based on the first delivery rate being exceeded by the predetermined amount, determining, by the at least one processor, an updated delivery rate for a remaining portion of the period of time, the updated delivery rate being less than the first delivery rate; and

serving advertisements associated with the advertising campaign within the pre-set tolerance of the updated delivery rate during a second portion of the period of time.

In a Non-Final Action, the Examiner rejects claims 2–59 under 35 U.S.C. § 101 as directed to non-statutory subject matter. Claims 28–34 and 39–45 are rejected as unpatentable under 35 U.S.C. § 102(e) as anticipated by Brown.<sup>2</sup> Claims 2–10, 12, 14–23, 25, 27, 50–54, and 59 are rejected under 35 U.S.C. § 103(a) as unpatentable over Merriman '600<sup>3</sup> and Brown. Claims 11, 24, and 55–57 are rejected under 35 U.S.C. § 103(a) as unpatentable over Merriman '600, Brown, and Merriman<sup>4</sup>. Claims 37 and 48 are rejected under 35 U.S.C. § 103(a) over Brown and Merriman. Claims 35, 36, 38, 46, 47, and 49 are rejected under 35 U.S.C. § 103(a) as unpatentable over Brown and McElfresh<sup>5</sup>. Claims 13, 26, and 58 are rejected under 35 U.S.C. § 103(a) as unpatentable over Merriman '600, Brown, and McElfresh. Non-Final Action, hereinafter “Non-Final Act.,” 3–25, mailed March 17, 2015; Answer, hereinafter “Ans.,” 4–22, mailed July 13, 2016.

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<sup>2</sup> US Patent 6,601,041 B1, issued July 29, 2003 (“Brown”).

<sup>3</sup> US Publication 2002/0099600 A1, published July 25, 2002 (“Merriman '600”).

<sup>4</sup> US Patent 5,948,061, issued September 7, 1999 (“Merriman”).

<sup>5</sup> US Patent 6,907,566 B1, issued June 14, 2005 (“McElfresh”).

## DISCUSSION

Appellants argue the rejection of claims 2–59 under § 101 on the same issues, and present arguments using independent claims 2 and 24 as representative. *See* Appeal Br. 21–25; Reply Brief, hereinafter “Reply Br.,” 11–14, filed September 15, 2016. We will address the § 101 rejection in a similar manner.

In response to the § 102(e) rejection, Appellants argue independent claims 28 and 39 on similar issues, with additional arguments presented for the respective dependent claims. Appeal Br. 12–17. Appellants argue issues relating to the obviousness rejections on similar issues to those presented on the anticipation rejection. *Id.* at 17–21. In light of the disposition of the issues herein, and with the other independent claims having similar limitations, we only need to address issues relating to claim 28 for the anticipation and obviousness rejections.

### *35 U.S.C. § 101*

The Examiner finds that claims 2–59 are directed to non-statutory subject matter that does not amount to significantly more than an abstract idea because the claims are directed to receiving data, storing data, analyzing data, selecting and presenting an advertisement. Ans. 4. The Examiner compares the claims to cases that similarly retrieve and manipulate data, and which the courts have found to be abstract ideas, with the Examiner therefore also finding that the claims here are also directed to abstract ideas. *Id.* The Examiner additionally finds that “the claims detail steps toward targeting advertising, targeted advertising is a fundamental economic practice and therefore the claims disclose a patent ineligible abstract idea.” *Id.* Additional claim elements are not found to transform the claims into significantly more than an abstract idea “because there are no other elements in the claims beyond the abstract ideas identified,” “the claims disclose generic computer components that serve only to implement the claimed judicial

exceptions,” and “[t]he generically recited computer elements do not add a meaningful limitation to the abstract idea because they would be routine in any computer implementation.” *Id.*

Appellants argue that the claims at issue are not directed to an abstract idea because they do not claim a fundamental business practice and, instead, are directed to a business challenge arising from the use of computers, referring to *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014) (“*DDR*”), which found that because, “[a]lthough the claims address a business challenge . . . it is a challenge particular to the Internet.” Appeal Br. 21–22; *see also* Reply Br. 10–12. Appellants allege that the claims are directed to optimally serving advertisements over various computer-based marketing mediums, such as banners, e-mail and mobile ads, in an integrated manner and based on target delivery rates. App. Br. 22. Appellants contend that the claims address a service-constraint problem, that is, “prevent[ing] a webserver from serving an Internet advertisement without accounting for a spike in click-thrus or impressions for the advertisement,” and that it does so with dynamic constraints. Reply Br. 11.

Appellants contend that even if the claims are directed to an abstract idea, they represent significantly more than patent ineligible subject matter because they recite more than routine or conventional use of the Internet because they overcome a problem specifically arising in the realm of computer networks. Appeal Br. 23. It is argued that the claims maintain a smooth delivery of advertisements when they are delivered faster than an initial target delivery rate. *Id.* Appellants allege that the claims concretely solve a problem of advertising on the Internet—“managing popular (e.g., viral) advertisements that prematurely satisfy their campaign requirement.” Reply Br. 9. Appellants argue that this solves a problem arising out of serving advertisements on the Internet. App. Br. 24. Appellants also

compare the claims at issue to those in *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016), alleging that the claims “do not merely recite an abstract idea along with the requirement to perform it on the Internet nor do they pre-empt all forms of targeted marketing on the Internet.”

Reply Br. 14. Appellants contend that the claims achieve a specific goal of serving advertisements in a smooth manner over a time period through the combination of the claimed steps. *Id.*

After considering Appellants’ arguments and the evidence presented in this Appeal for the § 101 rejection, we are not persuaded that Appellants identify reversible error, and we therefore sustain this rejection. We add the following for emphasis.

To provide context, 35 U.S.C. § 101 provides that a new and useful “process, machine, manufacture, or composition of matter” is eligible for patent protection. The Supreme Court has made clear that the test for patent eligibility under § 101 is not amenable to bright-line categorical rules. *See Bilski v. Kappos*, 130 S. Ct. 3218, 3229–30 (2010). There are, however, three limited, judicially-created exceptions to the broad categories of patent-eligible subject matter in § 101: laws of nature, natural phenomena, and abstract ideas. *See Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293 (2012).

In *Alice Corporation Party, Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014) (“*Alice*”), the Supreme Court reiterated the framework set forth previously in *Mayo*, “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of these concepts.” *Alice*, 134 S. Ct. at 2355. Under *Alice*, the first step of such analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* If determined that the claims are directed to a patent-

ineligible concept, the second step in the analysis is to consider the elements of the claims “individually and ‘as an ordered combination’” to determine whether the additional elements “‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (citing *Mayo*, 132 S. Ct. at 1298, 1297). In other words, the second step is to “search for an ‘inventive concept’—*i.e.*, an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Id.* (quoting *Mayo*, 132 S. Ct. at 1294).

Here, in the first step of the analysis, the Examiner found that because the claims are directed to targeting advertising that constitutes a fundamental economic practice, the claims are therefore directed to an abstract idea. For both representative claims 2 and 28, the claims require identifying an advertising campaign, determining target delivery rates for an advertising campaign, monitoring the actual delivery rate, and then, in response to making a determination, modifying the delivery rate downwards. *See* Claims App. 27, 33. We agree with the Examiner that the claims as a whole are directed to the purpose of advertising, which is a fundamental economic practice. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709 (Fed. Cir. 2014). The specific steps, such as setting and monitoring delivery rates associated with an advertising campaign, are basic commerce practices, but, in any event, these steps are directed to the furtherance of advertising. In short, we agree with the Examiner that the claims are directed to receiving data, storing data, analyzing data, selecting and presenting an advertisement. *See* Ans. 4. Additionally, as discussed further below, the claims do not address an issue that arises from and is specific to the Internet.

As to the second step of the *Alice* analysis, we are not persuaded by Appellants’ arguments that the claims represent “significantly more” than the



abstract idea itself. Appellants contend that the claims are directed to more than routine or conventional use of the Internet because they overcome a problem specifically arising in the realm of computer networks. Appeal Br. 23. The claims include setting and monitoring “target delivery rates” and adjusting the availability of the advertisements downwards if the actual rates are too high to achieve the alleged benefit of delivery in a “smooth manner.” We do not agree with Appellants’ contention that the claims are necessarily rooted in computer technology or the use of the Internet and, therefore, are more than merely an abstract idea. *See* Reply Br. 10–12. Considering the steps of the claims, and contrary to the Appellants’ arguments, the claims can be analogized to pre-Internet advertising practices. For instance, if advertising circulars in printed form were delivered in multiple batches to physical location(s), the rate at which potential customers pick up the circulars<sup>6</sup> could be monitored and the delivery volume to location(s) could be adjusted downwards if the rate of pick-ups of the circulars was too high in comparison to a target rate. This would result in “smooth delivery” of advertisements, and the required steps could be performed manually. Moreover, neither the Specification nor Appellants’ arguments adequately explain why “smooth delivery” of advertisements by constraining advertising delivery represents “significantly more” than the ineligible concept itself.

Finally, we are not persuaded by the Appellants’ argument that the claims will not preempt other types of advertising that do not employ the specific claimed steps. Although it may be true that there are other methods of monitoring advertising, the issue of preemption is not dispositive as to whether the claims are patent eligible. *See Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371,

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<sup>6</sup> A customer picking up a circular can be analogized to “delivery” in the claims. *See* Spec. 3:5–9, 8:4–5.

1377 (Fed. Cir. 2015) (“While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.”).

We therefore sustain the Examiner’s rejection of claims 2–59 under § 101.

*35 U.S.C. § 102*

Brown discloses a “first process [] to evaluate exposure performance against the exposure target set up for each campaign.” Brown, 24:22–24. Brown also discloses that:

An exposure target manager 328 maintains an aggregate exposure count for each rule that has caused an exposure. The aggregate exposure count is only maintained for rules that are related to currently active campaigns. An aggregate exposure count is then computed for each active campaign. While many algorithms can be constructed to enhance the priority of rules that are not producing enough exposures, the preferred implementation of the invention uses the following mechanism.

For each active campaign, the exposure target manager determines the percent of time left in the campaign [ $\text{PercentTime} = (\text{end date} - \text{current date}) / (\text{end date} - \text{start date})$ ]. If the campaign is greater than 50% complete in terms of time, the exposure target manager then computes the aggregate exposures as a percent of the target for the campaign [ $\text{PercentExposures} = \text{campaign aggregate exposures} / \text{target exposures}$ ]. If the percent of target exposures is less than the percent of time completed in the campaign, then the rules generating the exposures are not producing enough exposures to satisfy the contract requirements.

Brown, 24:29–49.

The Examiner relies upon these disclosures in Brown related to the “exposure target manager,” finding that it “determines the target delivery rate plus a predetermined percentage of the target delivery rate,” “discloses serving advertisements based on the delivery rate for a time period and determining if the delivery is proceeding on schedule and updating the delivery rate for a second

portion of the delivery,” where “if the delivery rate is exceeded then the updated delivery rate will be zero for the next time period therefore the update delivery rate is less than the first delivery rate.” Ans. 5–6, 23–24.

Appellants allege that Brown fails to disclose the claim limitations of “identifying an advertising campaign,” “determining . . . a first delivery rate,” “serving advertisements,” “determining that the first delivery rate is exceeded,” “determining . . . an updated delivery rate,” and “serving advertisements associated . . . within the pre-set tolerance of the updated delivery rate” of claim 28, with claim 39 containing similar limitations. Appeal Br. 12–13. Appellants contend that Brown only addresses a situation where a campaign is behind schedule, but does not address a situation where a campaign is ahead of schedule. *Id.* at 14–15. Appellants argue that Brown fails to disclose the use of a pre-set tolerance of the first delivery rate. *Id.* at 15. Appellants also allege that Brown is silent as to a pre-set tolerance, and the goals of the instant claim and Brown are different. *Id.*

Appellants further contend that the percentages disclosed in Brown are related to the percent of time remaining in an advertising campaign and the current percent of target exposure for the campaign. Reply Br. 3 (citing Brown, 24:38–63). As such, Appellants allege that the percentages of Brown “are calculated on the fly to determine if a campaign is on schedule and are not predetermined,” and therefore Brown fails to disclose the claim limitation, “determines the target delivery rate plus a predetermined percentage of the target delivery rate.” *Id.* at 4.

Although an *ipsissimis verbis* test, i.e., identity of terminology is not required, *In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990), anticipation is a question of fact, *In re Hyatt*, 211 F.3d 1367, 1371–72 (Fed. Cir. 2000), and can be found only if a single prior art reference discloses every element of the challenged claim, *In re King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986). Here, Brown discloses the use

of an “exposure target manager,” however, its disclosures are not specific to some of the details of the limitations of representative claim 28. Brown, for instance, fails to explicitly disclose the use of a predetermined percentage of the target delivery rate and pre-set tolerances as required by the claim limitations, and the Examiner provides only conclusory statements in support of the findings.

Thus, we cannot sustain the Examiner’s rejection of independent claims 28 and 39, and claims 29–34 and 40–45, that depend therefrom under 35 U.S.C. § 102(e).

*35 U.S.C. § 103*

Claims 35–38 and 46–49

Claims 35–38, directly or indirectly, depend from claim 28, and claims 46–49, directly or indirectly, depend, from claim 39. *See* Claims App. 34, 36–37. In the Non-Final Rejection, McElfresh is relied upon for the teachings of additional limitations of some dependent claims, and Merriman of other dependent claims, but neither cure the deficiencies of Brown’s teachings of the limitations of claims 28 and 39. Non-Final Act. 18–22.

Thus, we cannot sustain the Examiner’s rejection of claims 35–38 and 46–49 under 35 U.S.C. § 103(a).

Claims 2–27 and 50–59

Appellants allege that only Brown is relied upon for the teachings of the use of a predetermined percentage of the target delivery rate and pre-set tolerances for the related claim limitations in independent claims 2, 15, and 50. Appeal Br. 17–20. The Non-Final Action finds that “Merriman ‘600 does not specifically disclose determining that the target delivery rate for the advertisement campaign has been exceeded by a predetermined amount or that the predetermined amount is within a

pre-set tolerance,” the Examiner relies on McElfresh only for the additional limitation of “uniform delivery,” and relies on Merriman only for the additional limitation of installation on a mobile device in respective dependent claims. Non-Final Act. 9, 16, 22. Neither Merriman ’600, McElfresh, nor Merriman cure the deficiencies in the teachings of Brown for these limitations for the reasons discussed above for claims 28 and 39.

Thus, we cannot sustain the Examiner’s rejection of independent claims 2, 15, and 50, and claims 3–14, 16–27, 51–59 , that depend therefrom, under 35 U.S.C. § 103(a).

#### SUMMARY

The rejection of claims 2–59 under 35 U.S.C. § 101 is affirmed.

The rejection of claims 28–34 and 39–45 under 35 U.S.C. § 102(e) is reversed.

The rejections of claims 2–27, 35–38, and 46–59 under 35 U.S.C. § 103(a) are reversed.

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

AFFIRMED