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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* RON J. KARIDI, MOSHE TENNENHOLTZ, and ROY VARSHAVSKY

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Appeal 2017-002391
Application 12/967,394
Technology Center 3600

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Before JOHN A. EVANS, JAMES W. DEJMEK, and JASON M. REPKO, *Administrative Patent Judges*.

REPKO, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants[1] appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1–20. Br. 4.[2] We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

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[1] Appellants identify the real party in interest as Microsoft Technology Licensing, LLC, the assignee of record, which is a subsidiary of Microsoft Corporation, a corporation of the State of Washington, United States of America. Br. 4.

[2] Throughout this opinion, we refer to the Final Rejection ("Final Act.") mailed July 16, 2015; the Appeal Brief ("Br.") filed April 5, 2016; and the Examiner's Answer ("Ans.") mailed September 22, 2016.

## THE INVENTION

Appellants' invention generally relates to bidding agents in a real-time bidding process for online advertisements. Spec. ¶ 3. The invention integrates two types of bidders in a single system: real-time bidders and reserved bidders. Abstract.

Claim 1 is reproduced below:

> 1. One or more computer storage hardware devices storing computer-executable instructions that, when executed by one or more computing devices each having a processor and a memory, cause the one or more computing devices to perform a method for integrating reserved advertisement allocations and dynamic advertisement allocations, the method comprising:
>
> receiving a request from a first advertiser to purchase a reserved allocation of advertisement impressions (impressions), wherein an impression is a single displayed instance of an online advertisement, the impression having one or more attributes describing a user to whom the impression will be displayed (attributes), and
>
> wherein the request to purchase a reserved allocation of impressions specifies a number of impressions requested by the first advertiser that each have one or more attributes requested by the first advertiser;
>
> receiving one or more bids from an external bidding agent to dynamically purchase one or more impressions through a real-time bidding process that accepts bids for an impression just before the impression is displayed on a web page for a user; and
>
> bidding, as an internal bidding agent on behalf of the first advertiser, to dynamically purchase one or more impressions through the real-time bidding process until the request from the first advertiser to purchase the reserved allocation of impressions is satisfied,

> wherein the internal bidding agent adjusts its bid prices, at least in part, based on bid prices associated with the one or more bids from the external bidding agent.

## THE REJECTION

Claims 1–20 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. Final Act. 2–4.

## ANALYSIS

The Supreme Court's two-step framework guides our analysis. *See Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2355 (2014). According to step one, "[w]e must first determine whether the claims at issue are directed to a patent-ineligible concept," such as an abstract idea. *Id.*

If the claims are "directed to an abstract idea," we proceed to the second step where we consider the claim limitations "both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *Alice*, 134 S. Ct. at 2355 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 78–79 (2012)). The Supreme Court has described this analysis "as a search for an 'inventive concept.'" *Alice*, 134 S. Ct. at 2355.

In rejecting claims 1–20, the Examiner finds that the claims are directed to "a fundamental economic practice," "a method of selling advertisements as a commodity in a bidding market environment," and a "method of organizing human activities which is very well known in the art." Final Act. 3. According to the Examiner, "the invention would prevent the bidding process of advertising as a commodity." *Id.* In the Answer, the

Examiner compares the claims to several abstract ideas identified by the courts. Ans. 4 (discussing "creating a contractual relationship" and "obtaining and comparing intangible data").

Notably, in the Final Rejection, the Examiner does not analyze claims 1–20 separately. Final Act. 3–4. Rather, the Examiner groups the claims together in the analysis. *See id.* In the Answer, the Examiner responds to Appellants' arguments by discussing some features of the individual claims. *See* Ans. 4–8.

Appellants argue that the claims are not directed to an abstract idea because the problem solved by the invention arises from the increase in real-time bidding on the Internet. Br. 13 (citing Spec. ¶¶ 2, 12, 14, 16). According to Appellants, the claims address a challenge particular to the Internet, not a pre-Internet business practice. Br. 14 (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014)). Appellants contend that, in this way, the claims are necessarily rooted in computer technology. Br. 14. We agree with Appellants in this regard.

Although the invention generally relates to selling online advertisements, the claims solve a problem arising in the process of real-time online bidding involving bidding agents. Spec. ¶ 3. Typically, publishers provide reserved contracts for a fixed number of advertisement impressions to be displayed on web pages for an agreed-upon time period. *Id.* ¶ 1. These impressions, however, can also be dynamically purchased through a real-time bidding process. *Id.* ¶ 3. In the real-time bidding process, some purchasers use demand-side platforms (DSPs). *Id.* ¶ 14. DSPs are sophisticated bidding agents that analyze impressions and adjust bids accordingly on the advertiser's behalf. *Id.* DSPs can strategically bid

to win more impressions with a certain combination of desired attributes. *Id.* The invention accounts for DSPs by ensuring that a reserve customer receives a substantially random distribution of those impressions instead of a disproportionate number of impressions that the DSP does not target. *Id.* ¶ 18.

For example, a first advertiser can make a request to purchase a reserved allocation of advertisement impressions. *Id.* ¶ 3. This request specifies a number of impressions with one or more requested attributes. *Id.* Just before the impression is displayed on a web page, an external bidding agent makes a bid to dynamically purchase the impressions. *Id.* An internal bidding agent on behalf of the first advertiser, i.e., the reserve advertiser, dynamically purchases the impressions until the first advertiser's request is satisfied. *Id.* In this way, the invention integrates requests for a reserved allocation of impressions and requests for dynamic allocations of impressions. Abstract.

On this record, we agree with Appellants that the Examiner's analysis under *Alice* step one is in error. *See* Br. 14. Appellants' claims are not merely directed to using a computer as a tool for "selling advertisements as a commodity in a bidding market." Final Act. 3; *see also* Ans. 13 (discussing using computers as tools). In making this finding, the Examiner refers to the Federal Circuit's analysis in *Enfish, LLC v. Microsoft Corp.*: "the first step in the *Alice* inquiry in this case asks whether the focus of the claims is on the specific asserted improvement in computer capabilities . . . or, instead, on a process that qualifies as an 'abstract idea' for which computers are invoked merely as a tool." 822 F.3d 1327, 1335–36 (Fed. Cir. 2016). Here, Appellants' invention improves the functioning of the computer itself

because the improved system is able to handle two types of bidders. *See* Abstract. The claims, therefore, are directed to a technology-rooted solution for a problem arising from the use of DSPs in the real-time online bidding process. Spec. ¶¶ 2, 12, 14, 16.

In particular, claims 1, 11, and 17 recite limitations for receiving bids in a real-time bidding process involving external and internal bidding agents, and adjusting the bid prices. These limitations amount to more than sending, receiving, and comparing data, as the Examiner finds. *See* Ans. 4–8. Instead, Appellants claim a technical solution that integrates requests for reserved allocation of impressions and requests for dynamic allocations of impressions. *See, e.g.*, Abstract. The claimed integration overcomes "a problem specifically arising in the realm of computer networks." *DDR*, 773 F.3d at 1257. Namely, Appellants' claims advantageously ensure that the reserve customer receives a substantially random distribution of impressions instead of a disproportionally low number of DSP-targeted impressions in the real-time online bidding environment. Spec. ¶ 18. Because the claims are directed to a specific implementation of a solution to this technical problem, the claims are not directed to an abstract idea.

Therefore, Appellants have persuaded us of error in the rejection of claims 1–20 under 35 U.S.C. § 101.

## DECISION

We reverse the Examiner's rejection of claims 1–20.

REVERSED