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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* SHARAD SINGHAL, and  
YINPING YANG

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Appeal 2016-006846  
Application 12/648,405<sup>1</sup>  
Technology Center 3600

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Before ANTON W. FETTING, JOSEPH A. FISCHETTI, and  
PHILIP J. HOFFMANN, *Administrative Patent Judges*.

FISCHETTI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants seek our review under 35 U.S.C. § 134 of the Examiner's final rejection<sup>2</sup> of claims 1, 2, 5, 8, 10, 11, 13, 14, 16–18, and 21–30. We have jurisdiction under 35 U.S.C. § 6(b).

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<sup>1</sup> Appellants identify HEWLETT-PACKARD DEVELOPMENT COMPANY (“HPDC”) as the real party in interest. Appeal Br. 2.

<sup>2</sup> We herein refer to the Specification, filed Dec. 29, 2009 (“Spec.”); Final Office Action, mailed Jun. 19, 2015 (“Final Act.”); Appeal Brief, filed Oct. 19, 2015 (“Appeal Br.”); Examiner's Answer, mailed Apr. 22, 2016 (“Ans.”); and the Reply Brief, filed June 22, 2016 (“Reply Br.”).

## SUMMARY OF DECISION

We AFFIRM.

### THE INVENTION

Appellants claim a system and method for negotiating a sale. (Title).

Claim 1, reproduced below, is representative of the subject matter on appeal.

1. A computer system to negotiate a sale with a human, the computer system comprising:

a processor; and

a memory device that stores code executable by the processor to:

make an offer to sell in a round of a negotiation with a human user as a potential buyer;

receive a counter-offer from the human user;

determine whether to accept the counter-offer based on a target, a best alternative to a negotiated agreement (BATNA), and a round number of the round of the negotiation, wherein the target comprises a target utility value to a seller; and

reject the counter-offer in response to the counter-offer having a utility value to the seller greater than the BATNA and less than the target, and if the round number of the round of negotiation is less than a maximum number of rounds.

(Appeal Br., Claims Appendix, 29.)

### THE REJECTION

The Examiner relies upon the following as evidence of unpatentability:

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NONE<sup>3</sup>

The following rejection is before us for review.

Claims 1, 2, 5, 8, 10, 11, 13, 14, 16–18, and 21–30 are rejected under 35 U.S.C. § 101.

#### ANALYSIS

#### 35 U.S.C. § 101 REJECTION

We will sustain the rejection of claims 1, 2, 5, 8, 10, 11, 13, 14, 16–18, and 21–30 under 35 U.S.C. § 101.

The Supreme Court

set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, . . . determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so, we then ask, “[w]hat else is there in the claims before us?” To answer that question, . . . consider the elements of each claim both individually and “as an ordered combination” to determine whether the additional elements “transform the nature of the claim” into a patent-eligible application. [The Court] described step two of this analysis as a 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.”

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<sup>3</sup> The rejection under 35 U.S.C. § 103 (a) has been withdrawn. (*See* Ans. 3.)

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*Alice Corp., Pty. Ltd. v CLS Bank Int'l*, 134 S. Ct. 2347, 2355 (2014) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72–73 (2012)) [citations omitted].

To perform this test, we must first determine whether the claims at issue are directed to a patent-ineligible concept.

Although the Court in *Alice* made a direct finding as to what the claims were directed, we find that this case's claims themselves and the Specification provide enough information to inform one as to what they are directed.

The preamble of representative claim 1 states that it is for a “computer system to negotiate a sale with a human.” The steps in claim 1 result in:

*[D]etermin[ing] whether to accept the counter-offer based on a target, a best alternative to a negotiated agreement (BATNA), and a round number of the round of the negotiation, wherein the target comprises a target utility value to a seller; and*

*[R]eject[ing] the counter-offer in response to the counter-offer having a utility value to the seller greater than the BATNA and less than the target, and if the round number of the round of negotiation is less than a maximum number of rounds.*

The Specification further states,

Many products and services are currently offered to customers over electronic networks, such as the Internet. Current models for sales are limited. For example, one model for sales can be described as

“take it or leave it.” In other words, the seller specifies a price, and potential buyers can buy the item/service at the price, or not. The take it or leave it model may cost the seller potential sales when the customer is able to obtain a better deal. As such, the take it or leave it model is generally cost-effective only for low-value items/services involving single units of PCs, for example.

Another sales model may involve a human sales force. In such a model, a sales agent may interact with potential customers to customize the sale according to the customer's needs. This model is resource intensive, and typically may only be cost-effective for high-value sales, such as sales of hundreds of PCs.

For sales in the range between the high-value and low-value, such as a sale of 30-50 PCs, the take it or leave it model may forgo potential sales. However, involving a human agent to negotiate such a sale may not be cost-effective, given the balance of resources used against the profit of such a sale.

Spec. ¶¶ 1–3. Thus, all this evidence shows that claim 1 is directed to a method of maximizing a sales offer based at least on a target utility value to a seller, a best alternative to a negotiated agreement (BATNA), and the round number of the round of the negotiation. It follows from prior Supreme Court cases, and *Gottschalk v. Benson*, 409 U.S. 63 (1972) in particular, that the claims at issue here are directed to an abstract idea.

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Maximizing an offer based at least on a target utility value to a seller, a best alternative to a negotiated agreement (BATNA), and the round number of the round of the negotiation is a fundamental economic practice of a transaction because it affects completion of the sale with maximum results to seller. The patent-ineligible end of the 35 U.S.C. § 101 spectrum includes fundamental economic practices. *See Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2355–1257. Also, we find the steps of: mak[ing] an offer to sell; receiv[ing] a counter-offer; determin[ing] whether to accept the counter-offer based on a target; and reject[ing] the counter-offer in response to the counter-offer, constitute acts by a human and/or “analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category.” *Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016). *See also buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350 (Fed. Cir. 2014) (claims directed to certain arrangements involving contractual relations are directed to abstract ideas). Thus, maximizing a sales offer based at least on a target utility value to a seller, a (BATNA), and the round number of the round of the negotiation is an “abstract idea” beyond the scope of § 101.

As in *Alice Corp. Pty. Ltd.*, we need not labor to delimit the precise contours of the “abstract ideas” category in this case. It is enough to recognize that there is no meaningful distinction in the level of abstraction between the concept of an intermediated settlement in *Alice* and the concept of maximizing an offer based at least on a target utility value to a seller, a

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best alternative to a negotiated agreement (BATNA), and the round number of the round of the negotiation, at issue here. Both are squarely within the realm of “abstract ideas” as the Court has used that term. That the claims do not preempt all forms of the abstraction or may be limited to sales, does not make them any less abstract. *See OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1360–61 (Fed. Cir. 2015).

The introduction of a computer into the claims does not alter the analysis at *Mayo* step two.

[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea “while adding the words ‘apply it’” is not enough for patent eligibility. Nor is limiting the use of an abstract idea “to a particular technological environment.” Stating an abstract idea while adding the words “apply it with a computer” simply combines those two steps, with the same deficient result. Thus, if a patent’s recitation of a computer amounts to a mere instruction to “implement[t]” an abstract idea “on . . . a computer,” that addition cannot impart patent eligibility. This conclusion accords with the preemption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of “additional feature[e]” that provides any “practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.”

*Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2358 (alterations in original) (citations omitted).

“[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer. They do not.” *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2359.

Taking the claim elements separately, the function performed by the computer at each step of the process is purely conventional. Using a computer to retrieve, select, and apply decision criteria to data and modify the data as a result amounts to electronic data query and retrieval—one of the most basic functions of a computer. All of these computer functions are well-understood, routine, conventional activities previously known to the industry. *See Elec. Power Grp. v. Alstom S.A.*, *supra*. Also see *In re Katz Interactive Call Processing Patent Litigation*, 639 F.3d 1303, 1316 (Fed.Cir.2011) (“Absent a possible narrower construction of the terms “processing,” “receiving,” and “storing,” . . . those functions can be achieved by any general purpose computer without special programming”). In short, each step does no more than require a generic computer to perform generic computer functions. As to the data operated upon, “even if a process of collecting and analyzing information is ‘limited to particular content’ or a particular ‘source,’ that limitation does not make the collection and analysis other than abstract.” *SAP America Inc. v. InvestPic LLC*, No. 2017-2081, 2018 WL 2207254 (Fed. Cir. May 15, 2018) *See also SAP America Inc.*, 890 F 3d. 1016, 1022.

Considered as an ordered combination, the computer components of Appellants’ method add nothing that is not already present when the steps

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are considered separately. The sequence of data reception-analysis-access is equally generic and conventional or otherwise held to be abstract. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) (sequence of receiving, selecting, offering for exchange, display, allowing access, and receiving payment recited an abstraction), *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378 (Fed. Cir. 2017) (sequence of data retrieval, analysis, modification, generation, display, and transmission), *Two-Way Media Ltd. v. Comcast Cable Communications, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) (sequence of processing, routing, controlling, and monitoring). The ordering of the steps is therefore ordinary and conventional.

Viewed as a whole, Appellants' claims simply recite the concept of maximizing an offer based at least on a target utility value to a seller, a best alternative to a negotiated agreement (BATNA), and the round number of the round of the negotiation. The claims do not, for example, purport to improve the functioning of the computer itself. Nor do they effect an improvement in any other technology or technical field. Instead, the claims at issue amount to nothing significantly more than instructions to maximize an offer based at least on a target utility value to a seller, a best alternative to a negotiated agreement (BATNA), and the round number of the round of the negotiation. Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2360.

The method claims do not, for example, purport to improve the functioning of the computer itself. Nor do they effect an improvement in any other technology or technical field. The Specification spells out different generic equipment and parameters that might be applied using this concept and the particular steps such conventional processing would entail based on the concept of information access under different scenarios. They do not describe any particular improvement in the manner a computer functions, at least with respect to the claims in the instant application. Instead, the claims at issue amount to nothing significantly more than an instructions to apply the abstract idea of information access using some unspecified, generic computer. Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. See *Alice Corp. Pty. Ltd.* at 2360.

As to the structural claims, they are no different from the method claims in substance. The method claims recite the abstract idea implemented on a generic computer; the system claims recite a handful of generic computer components configured to implement the same idea. This Court has long “warn[ed] . . . against” interpreting § 101 “in ways that make patent eligibility ‘depend simply on the draftsman’s art.’”

*Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2360 (alterations in original).

We have reviewed all the arguments Appellants have submitted concerning the patent eligibility of the claims before us which stand rejected under 35 U.S.C. § 101 (Appeal Br. 8–15). We find that our analysis above

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substantially covers the substance of all the arguments which have been made. But, for purposes of completeness, we will address various arguments in order to make individual rebuttals of same.

Appellants argue,

In the present application, the claims cannot be reasonably characterized as only a fundamental economic practice, as contended by the Examiner. Instead, the claims relate to technical aspects for a system providing for a new interaction of machine with humans. The recited systems are inextricably tied to computer technology and distinct from the types of concepts found by the courts to be abstract. The claims do not simply describe assessment as might be performed in the mind of a human.

(Appeal Br. 10.)

We disagree with Appellants. As we found *supra*, Appellants' claims are not directed to specific new technical aspects rooted in computer technology, but rather the claims recite an abstract idea implemented on a generic computer. As recognized by the Supreme Court, "the mere recitation of a generic computer cannot transform a patent ineligible abstract idea into a patent-eligible invention." *See Alice*, 134 S. Ct. at 2359. Even still, as we noted above, the recitation of a practical application for an abstract idea sufficient to transform the abstract idea into a patent-eligible invention. *Cf. CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1371 (Fed. Cir. 2011) ("The Court [in *Parker v. Flook*, 437 U.S. 584 (1978)]

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rejected the notion that the recitation of a practical application for the calculation could alone make the invention patentable.”).

Appellants argue, “Plainly, the claims do not preempt a fundamental economic practice but instead carve out specific new technical aspects and are necessarily rooted in computer technology.” (Appeal Br. 11). Appellants also argue, “The claims provide systems and technical features for negotiation and customized offerings of products (e.g., a sale of 30-50 PCs) made by a machine to a human customer.” (*Id.*).

We disagree with Appellants. “[L]imiting the field of use of the abstract idea to a particular existing technological environment does not render any claims less abstract.” *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1258 (Fed. Cir. 2016) (citing *Alice*, 134 St. Ct. at 2358; *Mayo*, 132 S. Ct. at 1294). It also is immaterial that the claims would not preempt use of the abstract idea of conducting “round of a negotiation with a human user as a potential buyer”. See *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (“[P]reemption may signal patent ineligible subject matter, [but] the absence of complete preemption does not demonstrate patent eligibility.”).

Appellants further argue,

even if the claims encompass an abstract idea, claims 1, 11, 18, 21 recite features such that the claims are significantly more than an abstract idea. These features include at least a computer processor and executable applications (e.g.,

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negotiation agent). These features constitute meaningful limitations beyond a fundamental economic practice or abstract idea. *See DDR Holdings, LLC v. Hotels.com*, 113 U.S.P.Q.2d 1097 (Fed. Cir. 2014). The configuration and practice of a computer to *autonomously* and *effectively* negotiate a sale with a human buyer is plainly not a fundamental economic practice or longstanding commercial practice, and is more than an abstract idea.

(Appeal Br. 13–14)

We disagree with Appellants. In *DDR*, the claims at issue involved, inter alia, “web pages displays [with] at least one active link associated with a commerce object associated with a buying opportunity of a selected one of a plurality of merchants” (claim 1 of US 7,818,399). There is no such claim element with this degree of detail directed to internet technology present here before us.

#### CONCLUSIONS OF LAW

We conclude the Examiner did not err in rejecting claims 1, 2, 5, 8, 10, 11, 13, 14, 16–18, and 21–30 under 35 U.S.C. § 101.

#### DECISION

The decision of the Examiner to reject claims is affirmed.

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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).

AFFIRMED