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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte BRUCE T. THOMPSON

Appeal 2019-006582
Application 14/208,042
Technology Center 3600

Before KALYAN K. DESHPANDE, CHARLES J. BOUDREAU, and SHARON FENICK, *Administrative Patent Judges*.

FENICK, *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 1–20. We have jurisdiction under 35 U.S.C. § 6(b)(1).

We AFFIRM.

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[1] We use the word "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies CDK Global, LLC as the real party in interest. Appeal Br. 1.

CLAIMED SUBJECT MATTER

Appellant's invention relates to "identifying prices for vehicles offered by vehicle dealerships and other entities." Spec. ¶ 2. A pricing system communicates with consumer or end user devices and with vehicle dealership servers. *Id.* ¶¶ 15–17, Fig. 1. A pricing server analyzes information and recommends and identifies prices for vehicles. *Id.* ¶¶ 19, 29.

Claims 1, 9, and 16 are independent. Claim 1, reproduced below, is illustrative of the subject matter on appeal:

> 1. A method comprising:
>
> automatically identifying for a specified vehicle, via a pricing server comprising memory and one or more processors, a competitive set of other vehicles based on filters, information corresponding to the competitive set of other vehicles received by the pricing server from a plurality of vehicle dealership servers in communication with the pricing server;
>
> receiving by the pricing server from a user, via a user device comprising memory and one or more processors, one or more parameters to be used in pricing the specified vehicle;
>
> executing computer-readable instructions stored by the pricing server, the computer readable instructions configured to instruct a processor of the pricing server to determine a median price of the other vehicles of the competitive set;
>
> identifying, via the pricing server, a recommended price for the specified vehicle using a set of formulas, each formula of the set of formulas taking into consideration:
>
> a time parameter corresponding to a length of time that the vehicle is on the market,
>
> a pricing guide parameter based on the determined median price of the other vehicles of the competitive set,

> a modifier parameter corresponding to how much higher or lower than the pricing guide parameter to set the recommended price, and
>
> a profit protection parameter to prevent the recommended price from dropping below a predetermined price floor;
>
> updating, via the pricing server, the recommended price for the specified vehicle at predefined intervals based on changes to the competitive set and the one or more parameters; and
>
> updating, via a network, a graphical user interface with the recommended price for the specific vehicle.

Appeal Br. 30 (Claims App.).

REJECTION

Claims 1–20 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Final Act. 11–13.

OPINION

An invention is patent-eligible if it claims a "new and useful process, machine, manufacture, or composition of matter, or [a] new and useful improvement thereof." 35 U.S.C. § 101. However, the U.S. Supreme Court has long interpreted § 101 to "contain[] an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable." *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

In *Alice*, the Supreme Court reiterated the two-step framework previously set forth in *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012), "for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Alice*, 573 U.S. at 217. The first

step in this analysis is to "determine whether the claims at issue are directed to one of those patent-ineligible concepts," e.g., to an abstract idea. *Id.* Concepts determined to be abstract ideas include certain methods of organizing human activity, such as fundamental economic practices (*id.* at 219–20; *Bilski v. Kappos*, 561 U.S. 593, 611 (2010)); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). If it is determined that the claims are directed to a patent-ineligible concept, the second step of the analysis requires consideration of the elements of the claims "individually and 'as an ordered combination'" to determine whether there are additional elements that "'transform the nature of the claim' into a patent-eligible application." *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 78, 79). "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.* at 221 (alterations in original) (quoting *Mayo*, 566 U.S. at 77). In other words, the claims must contain an "inventive concept," or some element or combination of elements "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [abstract idea] itself." *Id.* at 217–18 (quoting *Mayo*, 566 U.S. at 72–73). "[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention." *Id.* at 221.

In January 2019, the PTO published revised guidance on the application of § 101. 2019 Revised Patent Subject Matter Eligibility

Guidance, 84 Fed. Reg. 50 (Jan. 7, 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* October 2019 Update at 1. Under that guidance, 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 fundamental economic practices, or mental processes) ("Step 2A, Prong 1"); and
>
> (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 2").[3]

See 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 (under "Step 2B") look to whether the claim:

> (3) adds a specific limitation beyond the judicial exception that is not "well-understood, routine, and 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.

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[2] In October 2019, in response to received public comments, the PTO issued a further memorandum clarifying the Revised Guidance. USPTO Memorandum, October 2019 Update: Subject Matter Eligibility (Oct. 17, 2019), *available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf* ("October 2019 Update").

[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* Revised Guidance, 84 Fed. Reg. at 54–55 (Section III.A.2).

See Revised Guidance, 84 Fed. Reg. at 56.

The Examiner determines that the claims are directed to "the abstract idea of identifying, determining and updating pricing criteria for a competitive set of vehicles to identify a price recommendation of specified vehicles." Final Act. 11. According to the Examiner, the claimed subject matter "relat[es] to organizing or analyzing information in a way that can be performed mentally or is analogous to human mental work" (*id.*) and is "based on fundamental economic practices as well as commercial interactions, in particular, sales activities or behaviors" (Ans. 8). The Examiner further determines that the claims do not include additional elements that are sufficient to amount to significantly more than the abstract idea. Final Act. 12. Specifically, the Examiner finds that the additional elements "amount to no more than mere instructions to implement the [abstract] idea on a computer, and/or a recitation of generic computer structure that serves to perform generic computer functions." *Id.*

Appellant argues that the claims recite additional elements that integrate the abstract idea into a practical application under Step 2A, Prong 2 of the Revised Guidance. Appeal Br. 11–16, 21, 25. Specifically, Appellant argues that the claims "reflect[] a substantial improvement to the technical field of automatic vehicle pricing" and recite a particular machine in the form of "a specific network architecture of a plurality of vehicle dealership servers in communication with the pricing server and a user device." *Id.* at 14. Appellant further argues that the claims amount to significantly more than an abstract idea and recite limitations that are not well-understood, routine, or conventional under Step 2B of the Revised Guidance. *Id.* at 16–18, 22, 26. Specifically, Appellant argues that "pricing decisions were

conventionally made by people using inconsistent/unsystematic methods" (*id.* at 17) and that the claims describe an improved method of identifying and displaying a recommended price based on empirical information (*id.* at 18). Finally, Appellant argues that the Examiner has not performed the proper analysis of "additional elements" under Step 2A, Prong 2 and Step 2B of the Revised Guidance. Reply Br. 2–3.

Step 2A, Prong 1

We agree with the Examiner that, based on the Revised Guidance, the claims recite a judicial exception, i.e., an abstract idea. *See* Final Act. 11. In particular, we agree with the Examiner that the claims recite concepts that may be performed mentally, i.e., mental processes. *See id.* We also agree with the Examiner that the claims recite a fundamental economic practice and sales activities or behaviors, which are among the "certain methods of organizing human activity" identified in the Revised Guidance as a judicial exception. *See* Ans. 8.

For example, independent claim 1 recites "determin[ing] a median price of the other vehicles of the competitive set." Claim 1 further recites:

> identifying . . . a recommended price for the specified vehicle using a set of formulas, each formula of the set of formulas taking into consideration:
>
> a time parameter corresponding to a length of time that the vehicle is on the market,
>
> a pricing guide parameter based on the determined median price of the other vehicles of the competitive set,
>
> a modifier parameter corresponding to how much higher or lower than the pricing guide parameter to set the recommended price, and
>
> a profit protection parameter to prevent the recommended price from dropping below a predetermined price floor.

Claim 1 additionally recites "updating . . . the recommended price for the specified vehicle at predefined intervals based on changes to the competitive set and the one or more parameters." Under their broadest reasonable interpretation, these "determin[ing]," "identifying," and "updating" limitations cover performance of the limitations in the mind (as do corresponding limitations in independent claims 9 and 16), but for the recitation of generic components. That is, other than the "computer-readable instructions," "processor," and "pricing server" recited in claim 1 (and, likewise, the "second processing device" recited in claim 9 and "non-transitory computer readable medium," "computer program," and "pricing server" recited in claim 16) as performing the recited steps, nothing in the claims precludes those steps from being performed in the human mind. For example, but for the recitation of the "computer-readable instructions," "processor," and "pricing server," claim 1 encompasses *mentally* determining a median price of the other vehicles of the competitive set; *mentally* identifying a recommended price for the specified vehicle using a set of formulas based on the recited parameters; and *mentally* updating the recommended price for the specified vehicle at predefined intervals based on changes to the competitive set and the one or more parameters.

In reciting "identifying . . . a recommended price for the specified vehicle," claim 1 also recites a fundamental economic practice, as well as sales activities or behaviors, in the form of identifying a price for an item for sale (as do independent claims 9 and 16 with corresponding limitations). Indeed, independent claims 1, 9, and 16 recite a fundamental economic practice and sales activities or behaviors in that the claimed invention "relates to a pricing system for identifying prices for vehicles offered by

vehicle dealerships and other entities," i.e., "vehicles for sale." Spec. ¶¶ 2–3.

Accordingly, the claims recite mental processes and certain methods of organizing human activity as identified in the Revised Guidance and, thus, an abstract idea.

Step 2A, Prong 2

Because the claims recite an abstract idea, we next look to whether the claims recite additional elements that integrate the abstract idea into a practical application. Revised Guidance, 84 Fed. Reg. at 54. We determine that they do not. For example, claim 1 additionally recites "identifying for a specified vehicle . . . a competitive set of other vehicles based on filters," receiving "information corresponding to the competitive set of other vehicles," and "receiving . . . one or more parameters to be used in pricing the specified vehicle." As the Examiner points out, these limitations are recited at a high level of generality (i.e., as general means of gathering data, i.e., information and parameters, used to identify the recommended price for the specified vehicle) and amount to insignificant pre-solution activity. *See* Final Act. 12. Claim 1 further recites "updating . . . a graphical user interface with the recommended price for the specific vehicle." This limitation is recited at a high level of generality (i.e., as general means of displaying the current recommended price for the specific vehicle) and thus amounts to insignificant post-solution activity. *See* Revised Guidance, 84 Fed. Reg. at 55; MPEP § 2106.05(g).

We agree with the Examiner that the claims otherwise merely recite generic computer components that similarly fail to integrate the recited abstract idea into a practical application. *See* Final Act. 12; Ans. 5, 9. For

example, independent claim 1 recites a "pricing server," "memory," "processors," "vehicle dealership servers," "user device," "computer-readable instructions," "network," and "graphical user interface." These limitations are recited at a high level of generality, i.e., as generic components performing generic computer functions of computer processing and gathering, storing, and displaying data. The claims merely apply the abstract idea using generic computer components and indicate a field of use or technological environment (e.g., the Internet or another network) for identifying a price for a vehicle for sale. *See* Final Act. 22; Revised Guidance, 84 Fed. Reg. at 55; MPEP § 2106.05(f), (h).

Appellant argues that the abstract idea is integrated into a practical application because the claims include a particular machine that is integral to the claims—a "specific network architecture of a plurality of vehicle dealership servers in communication with the pricing server and a user device." Appeal Br. 14; *see also* Reply Br. 7; Revised Guidance, 84 Fed. Reg. at 55; MPEP § 2106.05(b). We disagree that the claims recite a particular machine because, as discussed above, the recited "network," "vehicle dealership servers," "pricing server," and "user device" are generic computer components performing generic computer functions. The claims merely implement the abstract idea with general purpose computer components, not a particular machine. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716–17 (Fed. Cir. 2014) (determining that claims tied to a general purpose computer or the Internet are not tied to a particular machine); *In re TLI Commc'ns. LLC Patent Litig.*, 823 F.3d 607, 611–12 (Fed. Cir. 2016) (finding that a server "merely provide[s] a generic environment in which to carry out the abstract idea" when "described simply

in terms of performing generic computer functions such as storing, receiving, and extracting data").

Appellant further argues that the claims "reflect[] a substantial improvement to the technical field of automatic vehicle pricing" because "there was little to no technology conventionally used in the technical field of automatic vehicle pricing" and "there was no technical solution for providing empirical information or a holistic view of pertinent sales transaction data." Appeal Br. 14 (citing Pollack[4] ¶¶ 7–8; Swinson[5] ¶ 51); *see also* Reply Br. 5–6. According to Appellant, the claims reflect an improvement over "pricing decisions [that] were conventionally made by people and often subject to the biases resulting from emotion and lack of information." Appeal Br. 14 (citing Spec. ¶ 3; Swinson ¶ 4; Pollack ¶ 7). We are unpersuaded by Appellant's argument and agree with the Examiner that the claims do not recite a *technological* improvement in addition to the abstract idea. *See* Ans. 4–5, 7–8. As discussed above, the recited "servers," "memory," "processors," "computer readable instructions," and "network" used to implement the "automatic vehicle pricing" (*see* Appeal Br. 14) are merely generic computer components performing generic functions of computer processing and gathering and storing data. The claims "do not require an arguably inventive set of components or methods, such as measurement devices or techniques, that would generate new data. They do not invoke any assertedly inventive programming." *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016). Rather, as the

[4] Pollack, US 2010/0088158 A1 (pub. Apr. 8, 2010)

[5] Swinson et al., US 2011/0082804 A1 (pub. Apr. 7, 2011).

Examiner points out, the claims simply recite an existing business practice—pricing vehicles for sale—with the benefit of generic computer technology. *See* Ans. 4, 8. Thus, the claims do not reflect an improvement in computer functionality or to any other technology or technical field. *See* Revised Guidance, 84 Fed. Reg. at 55; MPEP § 2106.05(a).

Even in combination, the additional limitations do not integrate the abstract idea into a practical application because they do not impose any meaningful limits on practicing the abstract idea. Accordingly, we agree with the Examiner that the claims are directed to an abstract idea.

Step 2B

Turning to Step 2B of the Revised Guidance, we agree with the Examiner that there are no specific limitations beyond the judicial exception, i.e., the abstract idea, that are not well-understood, routine, and conventional in the field. *See* Final Act. 5; Ans. 8; *Alice*, 573 U.S. at 225. For example, the additionally recited "pricing server," "memory," "processors," "vehicle dealership servers," "user device," "computer-readable instructions," "network," and "graphical user interface" are mere recitations of generic computer components performing generic computer functions that are well-understood, routine, and conventional, and thus do not amount to significantly more than the abstract idea. *See* Spec. ¶¶ 15 (listing various examples of networks), 16 (listing various examples of user devices with displays (*see* ¶ 26)), 17 (describing vehicle dealership servers to include "any suitable structure supporting the usage of information about vehicles, such as a server computer"), 19 (describing a pricing server to include "any suitable structure supporting vehicle pricing"), 23 (disclosing a processing unit loaded with software instructions and that "[a]ny suitable processing

device(s) could be used"), 24 (listing various examples of memory and storage). As discussed above, those additional elements amount to no more than mere instructions to apply the abstract idea using generic computer components. Mere instructions to apply an abstract idea on a generic computer do not provide an inventive concept. *Alice*, 573 U.S. at 223–24.

Reevaluating the extra-solution activity of "identifying for a specified vehicle . . . a competitive set of other vehicles based on filters," receiving "information corresponding to the competitive set of other vehicles," and "receiving . . . one or more parameters to be used in pricing the specified vehicle" (*see* Revised Guidance, 84 Fed. Reg. at 56 (stating that a conclusion under Step 2A that an additional element is insignificant extra-solution activity should be reevaluated in Step 2B)), we find nothing unconventional in these steps of gathering data, i.e., information and parameters, used to identify the recommended price for the specified vehicle. Further reevaluating the extra-solution activity of "updating . . . a graphical user interface with the recommended price for the specific vehicle," we find nothing unconventional in this step of displaying the current recommended price for the specific vehicle.

Appellant argues that the claims encompass significantly more than an abstract idea because, whereas "pricing decisions were conventionally made by people using inconsistent/unsystematic methods" (Appeal Br. 17 (citing Pollack ¶¶ 7–8; Swinson ¶ 4)), the claims describe an improved method of identifying and displaying a recommended price based on empirical information that is not well-understood, routine, or conventional in the field of automatic vehicle pricing (*id.* at 18). However, as discussed above in Step 2A, Prong 1 of the Revised Guidance, the recited step of "identifying

. . . a recommended price for the specified vehicle" (including the recited "set of formulas," "time parameter," "pricing guide parameter," "modifier parameter," and "profit protection parameter" used to identify the recommended price) is a mental process and a fundamental economic practice. And, as discussed above in the analysis under Step 2A, Prong 2 of the Revised Guidance, the recited step of "updating . . . a graphical user interface with the recommended price" amounts to insignificant extra-solution activity. Appellant has not shown that the claims on appeal recite any limitations beyond the judicial exception that are not well-understood, routine, and conventional in the field. Furthermore, we are unpersuaded that the ordered combination amounts to significantly more than the abstract idea to which the claims are otherwise directed.

Appellant argues that the Examiner has not performed the proper analysis of "additional elements" under Step 2A, Prong 2 and Step 2B of the Revised Guidance. Reply Br. 2–3. For example, Appellant argues that the Examiner failed to analyze the recited "time parameter," "pricing guide parameter," "modifier parameter," and "profit protection parameter" as "additional elements," instead improperly considering them to be part of the abstract idea. *Id.* at 3 (citing Ans. 6). As discussed above, we agree with the Examiner that those recited parameters are not additional limitations beyond the judicial exception but, rather, part of the abstract idea to which the claims are directed. We have reviewed the record and determine that the Examiner provides sufficient reasoning in determining that the claims are directed to an abstract idea and that they do not contain additional elements sufficient to transform the abstract idea into patent-eligible subject matter. We also agree with the Examiner that dependent claims 2–8, 10–15, and 17–

20 do not contain additional elements sufficient to transform the abstract idea into patent-eligible subject matter. *See* Final Act. 13.

Accordingly, considering the claim elements individually and as an ordered combination, we agree with the Examiner that there are no meaningful claim limitations that represent sufficiently inventive concepts to transform the nature of the claims into a patent-eligible application of the abstract idea.

For the foregoing reasons, we sustain the Examiner's rejection of claims 1–20 under 35 U.S.C. § 101.

CONCLUSION

We affirm the Examiner's rejection of claims 1–20 under 35 U.S.C. § 101.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–20	101	Eligibility	1–20	

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)(1)(iv).

AFFIRMED