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Greenberg Traurig, LLP		GILLS, KURTIS	
77 W. Wacker Drive			
Suite 3100		ART UNIT	PAPER NUMBER
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jarosikg@gtlaw.com

UNITED STATES PATENT AND TRADEMARK OFFICE
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BEFORE THE PATENT TRIAL AND APPEAL BOARD
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Ex parte RODRIGO PIERZCHALSKI CARVALHO
_____

Appeal 2018-001700
Application 13/841,136
Technology Center 3600
_____

Before JOHNNY A. KUMAR, CARL L. SILVERMAN,
JOYCE CRAIG, *Administrative Patent Judges*.

KUMAR, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant[1] appeals under 35 U.S.C. § 134(a) from the Examiner's decision to reject claims 1–22. We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM.

STATEMENT OF THE CASE

Appellant's invention relates to pricing of products in the retail industry by gaining knowledge of a competitor's pricing for a product and setting an alert that is triggered by the competitor's pricing. Spec. ¶¶ 8, 11.

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[1] Appellant identifies the real parties in interest as Home Depot Product Authority, LLC, and The Home Depot, Inc. App. Br. 3.

Exemplary Claims

1. A method for providing competitive price alerts, the method comprising:

identifying a product from product information received from a user;

crawling a plurality of internet domains to generate a competitor set, the competitor set comprising a plurality of competitors offering the product through at least one domain of the Internet domains;

generating a rule set from rule information received from a user, the rule set comprising at least one rule to be applied to the product and each competitor in the competitor set, the at least one rule comprising a desired relationship between a price offered by the user for the product and respective prices offered by one or more competitors from the competitor set for the product;

searching the product against each competitor to determine if the at least one rule has been broken, wherein determining if the at least one rule has been broken comprises determining if the desired relationship is no longer true; and automatically transmitting an alert to the user in response to determining that the at least one rule has been broken, the alert informing the user that the at least one rule has been broken.

12. A system for providing competitive price alerts, the system comprising:

a memory; and

a processor, the processor configured to:

identify a product from product information received from a user;

crawl a plurality of Internet domains to generate a competitor set comprising a plurality of competitors, wherein each competitor in the competitor set is an organization that offers the product through at least one domain of the Internet domains;

generate a rule set from rule information received from a user, the rule set comprising at least one rule to be applied to the product and each competitor in the

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competitor set, the at least one rule comprising a desired
relationship between a price offered by the user for the
product and respective prices offered by one or more
competitors from the competitor set for the product;

search the product against each competitor in the
competitor set to determine if the at least one rule has
been broken, wherein determining if the at least one rule
has been broken comprises determining if the desired
relationship is no longer true; and

transmit an alert to the user in response to
determining the at least one rule has been broken, the
alert informing the user that the at least one rule has been
broken.

App. Br. 16, 18 (Claims Appendix).

REJECTIONS[2]

Claims 1–22 are rejected under 35 U.S.C. 101 as directed to non-
statutory subject matter.

Claims 1–22 are rejected under 35 U.S.C. 103(a) as being
unpatentable over Boyd et al. (US 2005/0256778 A1, published Nov. 17,
2005) in view of Odom (US 789,9701 B1, issued Mar. 1, 2001).

THE INELIGIBILITY REJECTION

The Examiner determines the claims recite "an abstract idea of
'fundamental economic practice' (e.g. Alice) and/or of 'an idea of itself'
(e.g. SmartGene and/or Ultramercial) and/or of 'certain methods of
organizing human activity' (e.g. Ultramercial) involving competitive

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[2] Throughout this Opinion, we refer to (1) the Final Office Action mailed
Apr. 28, 2017 ("Final Act."); (2) the Appeal Brief filed Aug. 8, 2017 ("App.
Br."); (3) the Examiner's Answer mailed Oct. 27, 2017 ("Ans."); and (4) the
Reply Brief filed Dec. 12, 2017 ("Reply Br.").

pricing alerts with competitive pricing rules." Final Act. 4–5. The Examiner further determines that the additional elements including (1) a *processor* and (2) a *memory* do not add significantly more than the abstract idea, but merely recite generic computing components. Final Act. 5–6.

Appellant argues the Examiner failed to make a *prima facie* case that the claims recite an abstract idea. App. Br. 6–8. The Appellant additionally argues the claimed inventions do not pose a risk of tying up the field of competitive pricing alerts with competitive pricing rules. App. Br. 7–8. Appellant adds that, similar to *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC,* 827 F.3d 1341 (Fed. Cir. 2016), the claimed invention as a whole amounts to significantly more than the purported abstract idea by reciting an unconventional solution to a technical problem, necessarily rooted in computer technology, and involving alerting a user (e.g. retailer) when a competitor's price has changed to give the user specific information to guide future price adjustments. App. Br. 9–10.

ISSUE

Under § 101, has the Examiner erred in rejecting the claimed invention as directed to ineligible subject matter? This issue turns on whether the claims are directed to an abstract idea and, if so, whether additional elements recited—considered individually and as an ordered

combination—transform the nature of the claims into a patent-eligible application of that abstract idea.

PRINCIPLES OF LAW

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 ideas" are not patentable. *See, e.g.*, *Alice*, 573 U.S. at 216 (citation omitted).

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*. *Id.* 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. (15 How.) 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 176; *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."). That said, 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 (citation 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.* (alterations in original) (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.*

In January 2019, the USPTO published revised guidance on the application of § 101. *See 2019 Revised Patent Subject Matter Eligibility Guidance,* 84 Fed. Reg. 50 (Jan. 7, 2019) ("Revised Guidance"). 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 a fundamental economic practice, or mental processes); and

> (2) additional elements that integrate the judicial exception into a practical application (*see* MANUAL OF PATENT EXAMINING PROCEDURE (MPEP) §§ 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08. 2017, Jan. 2018)).

Only if a claim (1) recites a judicial exception, and (2) does not integrate that exception into a practical application, do we then 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, and conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

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

THE INELIGIBILITY ANALYSIS

Independent claims 1 and 12 recite analogous limitations. Appellant presents a unitary argument directed towards independent claims 1 and 12 together. App. Br. 5. Accordingly, we select claim 12 for discussion as representative of the rejected claims. We refer to the rejected independent claims collectively herein as "claim 12." *See* 37 C.F.R. § 41.37(c)(1)(iv); *In re King*, 801 F.2d 1324, 1325 (Fed. Cir. 1986).

We must determine whether the claimed invention is directed to a judicial exception, namely an abstract idea. *See Alice*, 573 U.S. at 217. To this end, we determine (1) whether claimed invention recites a judicial exception (Revised Guidance Step 2A – Prong 1) and, if so, (2) whether the identified judicial exception is integrated into a practical application (Revised Guidance Step 2A – Prong 2). *See* Revised Guidance, 84 Fed. Reg. at 52–55.

Revised Guidance Step 2A – Prong 1

In Revised Step 2A — Prong 1, we (1) identify the claim's specific limitations that recite an abstract idea, and (2) determine whether the identified limitations fall within certain subject matter groupings, namely (a) mathematical concepts;[3] (b) certain methods of organizing human activity[4];

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[3] Mathematical concepts include mathematical relationships, mathematical formulas or equations, and mathematical calculations. *See* Revised Guidance, 84 Fed. Reg. at 52.
[4] Certain methods of organizing human activity include fundamental economic principles or practices (including hedging, insurance, mitigating risk); commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations); managing personal behavior or relationships

or (c) mental processes.[5] We agree with the Examiner (Final Act. 4–5) that claim 12 recites a judicial exception. Here, apart from (1) a *processor* and (2) a *memory* recited in independent claim 12, the claimed invention's recited limitations, which collectively are directed to gathering and comparing product price data and transmitting an alert based on the comparison, fit squarely within at least one of the above categories of the agency's guidelines.

First, the claimed invention recites steps directed to **certain methods of organizing human activity**, including **a fundamental economic practice** of offer based price optimization. *See* Spec. ¶ 7 ("Given the high volume and frequency of online price changes for products and the growing number of retailers, these [current] methods are ineffective and inefficient. To this end, there is a need for improved systems and methods for competitive intelligence relating to pricing in the retail industry"); ¶ 11 ("system operable to . . . gain knowledge on . . . each competitor's pricing of the products . . . generate an alert when a competitors pricing on the product violates a rule set up by a customer"); ¶ 13 (alert condition may be met when the price of a competitor's product drops below the price of the same product . . . for a customer"); Claim 13 ("compare a price offered by the user . . . to a price offered by the at least one competitor"); ¶ 23 ("Customers may also be alerted of a recommended pricing of a product").

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or interactions between people (including social activities, teaching, and following rules or instructions). *See* Revised Guidance, 84 Fed. Reg. at 52.
[5] Mental processes are concepts performed in the human mind including an observation, evaluation, judgment, or opinion. *See* Revised Guidance, 84 Fed. Reg. at 52.

For example, claim 12 recites (1) "***identify a product*** *from product information received from a user*; (2) "***crawl a plurality of Internet domains*** *to generate a competitor set comprising a plurality of competitors, wherein each competitor in the competitor set is an organization that offers the product through at least one domain of the Internet domain*s; (3) **generate a rule** *set from rule information* **received from a user**, *the rule set comprising at least one rule to be applied to the product and each competitor in the competitor set, the at least one rule comprising a desired* **relationship between a price offered by the user** *for the product* **and respective prices offered by one or more competitors** *from the competitor set for the product*; (4) **search the product against each competitor** *in the competitor set* **to determine** *if the at least one rule has been broken, wherein determining if the at least one rule has been broken comprises determining if the desired relationship is no longer true*; and (5) **transmit an alert** *to the user in response to determining the at least one rule has been broken, the alert informing the user that the at least one rule has been broken* (App. Br. 18 (Claims Appendix) (emphasis added)), which recite a certain method of organizing human activity, namely, a fundamental economic practice of offer based price optimization. The relevant case law establishes limitations (1)–(5) are directed to an abstract idea, like: (1) the risk hedging in *Bilski v. Kappos*, 561 U.S. 593 (2010); (2) the intermediated settlement in *Alice*, 573 U.S. at 220; (3) verifying credit card transactions in *CyberSource*, 654 F.3d 1366, 1370 (Fed. Cir. 2011); (4) guaranteeing transactions in *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1354 (Fed. Cir. 2014); (5) distributing products over the Internet in *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709 (Fed. Cir. 2014); (6) determining a price of a product offered to a purchasing

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organization in *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306
(Fed. Cir. 2015); and (7) pricing a product for sale in *OIP Techs., Inc. v.
Amazon.com, Inc*., 788 F.3d 1359 (Fed. Cir. 2015).

For example, in *OIP Technologies, Inc. v. Amazon.com, Inc.*, 788 F.
3d 1359, 1363 (Fed. Cir. 2015), the claims at issue recited "(1) testing a
plurality of prices; (2) gathering statistics generated about how customers
reacted to the offers testing the prices; (3) using that data to estimate
outcomes; and (4) automatically selecting and offering a new price based on
the estimated outcome" *Id*. at 1361 (parentheticals omitted). Our reviewing
court found that such limitations recited certain methods of organizing
human activities, which is a type of abstract idea, namely, the concept of
"offer-based price optimization". *Id*. at 1362. Similar to *OIP Technologies*,
claim 12 includes steps reciting (1)–(2) gathering data related to product
pricing offers, (3) generating a user (e.g., customer, retailer) based rule
related to a pricing comparison, (4) using competitor pricing data to
determine a pricing related communication to send to a user, and (5)
transmitting the pricing related communication to the user. *See also
Intellectual Ventures I LLC v. Symantec Corp.,* 838 F.3d 1307 at 1313 (Fed.
Cir. 2016) ("receiving e-mail (and other data file) identifiers, characterizing
email based on the identifiers, and communicating the characterization – in
other words, filtering files/e-mail –is an abstract idea"); *see also* M.P.E.P.
2106.04(a)(2), II ("Certain Methods of Organizing Human Activity",
Section D, example v, citing *Symantec*); *Dealertrack v. Huber*, 674 F.3d
1315, 1333 (Fed. Cir. 2012) ("receiving data from one source, selectively
forwarding the data, and forwarding reply data to the first source"
constituted certain methods of organizing human activities, which is a type

of abstract idea); M.P.E.P. 2106.04(a)(2), II ("Certain Methods of
Organizing Human Activity", Section A, citing *Dealertrack*).

Similar to the data gathering (1)–(2) and selective transmission of
content based on user characteristics, such a user submitted pricing rule (3),
shown above, our reviewing court in *Intellectual Ventures I LLC v. Capital
One Bank (USA)*, 792 F.3d 1363 (Fed. Cir. 2015) found that retrieving data
from a user and tailoring transmitted content based on the retrieved data
constituted certain methods of organizing human activities, which is a type
of abstract idea. 792 F.3d 1363, 1369–1370; *see also* M.P.E.P.
2106.04(a)(2), II ("Certain Methods of Organizing Human Activity",
Section C, citing *Capital One Bank (USA)*).

Specifically, limitations (1)–(3) recite gathering data such as *product
information received from a user, rule information received from a user,* and
prices offered by one or more competitors in furtherance of organizing
human activity, namely, a fundamental economic practice. In *Symantec*, our
reviewing court found claim limitations reciting

> *identifying characteristics of data files* comprising: *receiving*,
> on a processing system, file content identifiers for data files
> from a plurality of file content identifier generator agents

(emphasis added) constitute certain methods of organizing human activities,
which is a type of an abstract idea related to retrieving data using data file
identifiers. *See Syamntec*, 838 F.3d 1307 at 1313; *see also Content
Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d
1343, 1345–49 (Fed. Cir. 2014) (holding ineligible claims reciting (1)
receiving output representing diverse types of hard copy documents from an
automated digitizing unit, and (2) storing information from those documents
into memory); *CyberSource Corp. v. Retail Decisions, Inc.,* 654 F.3d 1366,

1372 (noting that limitations reciting obtaining information about transactions that have used an Internet address identified with a credit card transaction can be performed by a human who simply reads records of Internet credit card transactions from a pre-existing database).

Furthermore, limitations (4)–(5) recite using the data gathered in limitations (1)–(3) to determine that wanted and unwanted content may be defined according to *prices offered by one or more competitors* and *user input* data and transmitting content to a user based on the determination. Our reviewing court has found that email filtering with user–set criteria constitutes certain methods of organizing human activities, which is a type of abstract idea. *See Intellectual Ventures I LLC v. Symantec Corp.,* 838 F.3d 1307 at 1313, 1317–1319 (Fed. Cir. 2016); *see also* M.P.E.P. 2106.04(a)(2), II ("Certain Methods of Organizing Human Activity", Section D, example v, citing *Symantec*). Additionally, user customizable content filtering of information retrieved from the Internet was similarly found to constitute certain methods of organizing human activities, which is a type of abstract idea. *See BASCOM Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1345–1346 (Fed. Cir. 2016); *see also* M.P.E.P. 2106.04(a)(2), II ("Certain Methods of Organizing Human Activity", Section C, example i, citing *BASCOM*). These cases are relevant because user–customization means that wanted and unwanted content may be defined according to user related data. Retrieval of information defining the wanted and unwanted content in a multi-user environment requires use of the user related data. *See, e.g., BASCOM*, *supra*. Although the claimed invention involves selectively transmitting competitor pricing content rather than blocking or allowing access to requested content like these cases, the

use of recipient information to selectively transmit pricing content transmitted to a user, i.e., steps (4)–(5), similarly recites a certain method of organizing human activity that is an abstract idea.

Furthermore, the Specification indicates limitation (4) "*search the product against each competitor in the competitor set to determine if the at least one rule has been broken, wherein determining if the at least one rule has been broken comprises determining if the desired relationship is no longer true,*" under an aspect of the invention, can be carried out by a simple price data comparison. Spec. ¶ 13 ("an alert condition maybe met when the price of a competitor's product drops below the price of the same product/product type for a customer"). Our reviewing court in *Capital One Bank (USA)* reviewed analogous claim limitations and determined tailoring of content transmitted to a recipient based on "matching personal characteristics in a user profile" with "information identifiers" is an abstract idea constituting a fundamental practice long prevalent in our system, i.e., a certain method of organizing human activity that is an abstract idea. 792 F.3d 1363, 1369–1370 (internal citations and quotations omitted); *see also* M.P.E.P. 2106.04(a)(2), II ("Certain Methods of Organizing Human Activity", Section C, citing *Capital One Bank (USA)*).

We add that the above-noted recited functions of (3) "*generate a rule set from rule information received from a user*"; and (4) "*search the product against each competitor in the competitor set to determine if the at least one rule has been broken, wherein determining if the at least one rule has been broken comprises determining if the desired relationship is no longer true*" can also be typically performed as a **mental process** by merely *thinking* about these identifications and determinations, or writing them down—both

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involving mere observation and logical reasoning. *Cf. CyberSource*, 654 F.3d at 1372 (noting that a recited step that utilized a map of credit card numbers to determine the validity of a credit card transaction could be performed entirely mentally by merely using *logical reasoning* to identify a likely instance of fraud by merely *observing* that numerous transactions using different credit cards all originated from the same IP address). Additionally, mental processes remain unpatentable even when automated to reduce the burden on the user of what once could have been done with pen and paper. *See CyberSource*, 654 F.3d at 1375 ("That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*.").

Therefore, the steps (3)–(4) also fall squarely within the mental processes category of the agency's guidelines and, therefore, claim 12 recites an abstract idea for that additional reason. *See* Guidance, 84 Fed. Reg. at 52 (listing exemplary mental processes including observation and evaluation).

Accordingly, limitations (1)–(5) reciting gathering, analyzing, organizing and displaying the analyzed and organized data falls squarely certain methods of organizing human activity category of the agency's guidelines and, therefore, claim 12 recites an abstract idea. *See* Revised Guidance, 84 Fed. Reg. at 52 (listing exemplary certain methods of organizing human activity, including a fundamental economic practice).

Revised Guidance Step 2A – Prong 2

Although claim 12 recites both an abstract idea categorized as a certain method of organizing human activity and also an abstract idea

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categorized as a mental process, we nevertheless must still determine whether the abstract idea is integrated into a practical application, namely whether the claim applies, relies on, or uses the abstract idea in a manner that imposes a meaningful limit on the abstract idea, such that the claim is more than a drafting effort designed to monopolize the abstract idea. *See* Revised Guidance, 84 Fed. Reg. at 54–55. To this end, we (1) identify whether there are any additional recited elements beyond the abstract idea, and (2) evaluate those elements individually and collectively to determine whether they integrate the exception into a practical application. *See id.*

Here, we agree with the Examiner (e.g., Final Act. 4–6) that claim 1 recites a judicial exception apart from (1) a *processor* and (2) a *memory* recited in independent claim 12, but these additional elements do not integrate the abstract idea into a practical application when reading the claimed invention as a whole.

To the extent that Appellant contends that the recited limitations, including the recited transmission of an alert to a user that a rule has been broken, noted previously adds significantly more than the abstract idea to provide an inventive concept under *Alice/Mayo* step two (*see* App. Br. 10), this limitation is not an *additional* element *beyond* the abstract idea, but rather are directed to the abstract idea as noted previously. *See* Guidance, 84 Fed. Reg. at 56 (instructing that *additional* recited elements should be evaluated in *Alice/Mayo* step two to determine whether they (1) *add* specific limitations that are not well-understood, routine, and conventional in the field, or (2) simply *append* well-understood, routine, and conventional activities previously known to the industry (citing MPEP § 2106.05(d))).

Appellant's reliance on *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016) (App. Br. 34; App. Br. 9–10) is likewise unavailing. There, the court held eligible claims directed to a technology-based solution to filter Internet content that overcame existing problems with other Internet filtering systems by making a known filtering solution—namely a "one-size-fits-all" filter at an Internet Service Provider (ISP)—more dynamic and efficient via individualized filtering at the ISP. *BASCOM*, 827 F.3d at 1351. Notably, this customizable filtering solution improved the computer system's performance and, therefore, was patent-eligible. *See id.* But unlike the filtering system improvements in *BASCOM* that added significantly more to the abstract idea in that case, the claimed invention here uses generic computing components to implement an abstract idea. *See* Spec. ¶ 59–60 ("any type of storage medium"); ¶ 64 ("processor . . . by any means known in the art"); ¶ 66 ("a 'processor' includes any . . . mechanism or component that processes data").

To the extent Appellant contends that the claimed invention is rooted in technology because it is ostensibly directed to solving an "internet–centric problem" (*see* App. Br. 10), we disagree. Even assuming, without deciding, that the claimed invention can solicit and evaluate product development contributions received from participants, and compensate participants according to that evaluation faster than doing so manually, any speed increase comes from the capabilities of the generic computer components— not the recited process itself. *See FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089, 1095 (Fed. Cir. 2016) (citing *Bancorp Services, LLC v. Sun Life Assurance Co.*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) ("[T]he fact that the required calculations could be performed more efficiently via a

computer does not materially alter the patent eligibility of the claimed subject matter.")); *see also Intellectual Ventures I LLC v. Erie Indemnity Co.*, 711 F. App'x 1012, 1017 (Fed. Cir. 2017) (unpublished) ("Though the claims purport to accelerate the process of finding errant files and to reduce error, we have held that speed and accuracy increases stemming from the ordinary capabilities of a general-purpose computer do not materially alter the patent eligibility of the claimed subject matter."). Like the claims in *FairWarning*, the focus of claim 221 is not on an improvement in computer processors as tools, but on certain independently abstract ideas that use generic computing components as tools. *See FairWarning*, 839 F.3d at 1095 (citations and quotation marks omitted).

Nor is this a case involving eligible subject matter as in *DDR Holdings, LLC v. Hotels.Com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014) despite Appellant's arguments to the contrary (App. Br. 10). There, instead of a computer network operating in its normal, expected manner by sending a website visitor to a third-party website apparently connected with a clicked advertisement, the claimed invention in *DDR* generated and directed the visitor to a hybrid page that presented (1) product information from the third party, and (2) visual "look and feel" elements from the host website. *DDR*, 773 F.3d at 1258–59. Given this particular Internet-based solution, the court held that the claimed invention did not merely use the Internet to perform a business practice known from the pre-Internet world, but rather was necessarily rooted in computer technology to overcome a problem specifically arising in computer networks. *Id.* at 1257.

That is not the case here. As noted previously, Appellant's claimed invention, in essence, is directed to optimizing price based on alerting a

retailer when a competitors' price changes —albeit using computer-based components to achieve that end. The claimed invention here is not necessarily rooted in computer technology in the sense contemplated by *DDR* where the claimed invention solved a challenge particular to the Internet. Although Appellant's invention uses various computer-based components noted previously, the claimed invention does not solve a challenge particular to the computing components used to implement this functionality.

We find Appellant's argument that the claimed invention does not pose a risk of tying up the field of competitive pricing alerts with competitive pricing rules unavailing. App. Br. 8. Our reviewing court provides applicable guidance: "While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility." *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015); *Ultramercial*, 722 F.3d at 1346.

But "a claim for a new abstract idea is still an abstract idea." *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016) (emphasis omitted); *see also Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1321 (Fed. Cir. 2016) ("A narrow claim directed to an abstract idea, however, is not necessarily patent-eligible."). To the extent Appellant also urges that the purportedly meaningful limitations are not well-understood, routine, and conventional, we address this issue under *Step 2B* (*Inventive Concept*), *infra*. For the reasons discussed further below, and on this record, it is our view that Appellant's claims do not add *meaningful limitations* beyond generally linking the use of the judicial exception to a particular technological environment.

Additionally, dependent claims 2–11 and 13–22 are not argued separately with sufficient particularity. *See generally* App. Br.; *see also* 37 C.F.R. § 41.37(c)(1)(iv). For the above-stated reasons, we determine the additional elements recited in the claimed invention, beyond the judicial exceptions, whether considered alone or in combination, do not integrate the abstract idea into a practical application.

Revised Guidance, Step 2B

Under the Revised Guidance, if a claim: (1) recites a judicial exception, and (2) does not integrate that exception into a practical application, we then look to whether the claim adds a specific limitation beyond the judicial exception that is not "well-understood, routine, conventional" in the field (*see* MPEP § 2106.05(d)); or, simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. *See* Revised Guidance, 84 Fed. Reg. at 56.

On the record before us, we disagree with Appellant that the claims add a specific limitation beyond the judicial exception that is not "well-understood, routine, [and] conventional" in the field (*see* M.P.E.P. 2106.05(d)). We find no reversible error in the Examiner's determination that additional elements, such (1) a processor and (2) a memory recited in independent claim 12, are nothing more than generic elements using conventional concepts. *See* Final Act. 5–6. In fact, the Specification supports the Examiner's finding that additionally recited elements are at best generic computer elements performing generic computer functions, by providing non-limiting and exemplary descriptions of generic computer

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components that are used to carry out offer based price optimization. *See* Spec. ¶ 59–60 ("any type of storage medium"); ¶ 64 ("processor . . . by any means known in the art"); ¶ 66 ("a 'processor' includes any . . . mechanism or component that processes data").

Additionally, we find Appellant's argument regarding the Examiner's rejection of the claims under 35 U.S.C. § 103(a) constitutes evidence the claims are not conventional (App. Br. 10) to be unavailing. "'. . . 'Novelty' of any element or steps in a process, or even of the process itself, is of *no relevance* in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.'" *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1315 (Fed. Cir. 2016) (quoting *Diehr*, 450 U.S. at 188–89). *See also Synopsys*, 839 F.3d at 1151 ("a claim for a new abstract idea is still an abstract idea. The search for a § 101 inventive concept is thus distinct from demonstrating § 102 novelty") (emphasis omitted); M.P.E.P. 2106.05 ("Because they are separate and distinct requirements from eligibility, patentability of the claimed invention under 35 U.S.C. 102 and 103 with respect to the prior art is neither required for, nor a guarantee of, patent eligibility under 35 U.S.C. 101").

Appellant does not argue dependent claims 2–11 and 13–22 separately with particularity. *See generally* App. Br. In light of the foregoing, we conclude that each of claims 1–22, considered as a whole, is directed to a patent-ineligible abstract idea that is not integrated into a practical application, and does not include an inventive concept.

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Accordingly, for the reasons discussed above, we sustain the Examiner's rejection under 35 U.S.C. § 101 of claims 1–22.[6]

THE OBVIOUSNESS REJECTION

We have considered all of Appellant's arguments and any evidence presented. We disagree with Appellant's arguments, and we adopt as our own: (1) the findings and legal conclusions set forth by the Examiner in the Final Office Action from which this appeal is taken, and (2) the findings, legal conclusions, and explanations set forth in the Answer in response to Appellants' arguments (Ans. 5–6). We highlight and address specific findings and arguments for emphasis in our analysis below.

Rejection of Independent Claim 1 under 35 U.S.C. § 103(a) [7]

Claim 1 recites, *inter alia*,

generating a rule set from rule information received from a user, the rule set comprising at least one rule to be applied to the product and each competitor in the competitor set, the at least one rule comprising a *desired relationship* between a price offered by the user for the

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[6] To the extent Appellant has not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv).

[7] Appellant did not provide separate arguments with respect to the patentability of claims 2–22.

> product and respective prices offered by one or more competitors from the competitor set for the product;
> …
> automatically transmitting an alert to the user in response to determining that the at least one rule has been broken, the alert informing the user that the at least one rule has been broken.

(emphasis ours).

Based on Appellant's arguments in the Briefs, the principal and dispositive issue of whether the Examiner erred in rejecting exemplary claim 1 turns on whether Boyd discloses "at least one rule comprising a *desired relationship* between a price offered by the user for the product and respective prices offered by one or more competitors from the competitor set for the product." (hereinafter "the disputed limitation"). App. Br. 10–15; Reply Br. 4–6. Independent claim 12 recites similar subject matter.

Appellant contends "[n]either Boyd nor Odom discloses such an alert…[because] those alerts are not related to a desired relationship between the user's price of a product and one or more competitors' prices." App. Br. 11.

The Examiner has identified the relevant portions of Boyd and has provided sufficient explanation with corresponding citations to various parts of the reference for disclosing the "desired relationship" disputed limitation. In particular, the Examiner finds, and we agree

> Boyd teaches generating a rule/constraint set from rule information received from a user, e.g. group level incentive constraints selected by the user, which is applied to product/channel combination, i.e. product and competitive channel combination. The rule comprises a desired relationship of, for example, 7% fixed amount for all choices in the group….Boyd discloses teachings beyond the above stated limitations by providing business pricing systems including business objective

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rules comprising desired relationships providing for conditional based alerts.

Ans. 6 (citing Boyd ¶ ¶ [0124], [0135], [0165], and [0158]).

The Examiner, giving the claim its broadest reasonable interpretation consistent with the Specification, has properly found that the "desired relationship" disputed limitation reads upon Boyd's disclosure, as explained above.

Accordingly, Appellant has not provided sufficient evidence or argument to persuade us of any reversible error in the Examiner's reading of the contested limitations on the cited prior art, or in the proper combinability of the prior art references as suggested by the Examiner. Therefore, we sustain the Examiner's obviousness rejection of claims 1–22.

Consequently, we conclude there is no reversible error in the Examiner's rejections of claims 1–22.

DECISION

We AFFIRM the Examiner's rejection of claims 1–22 under 35 U.S.C. § 101.

We AFFIRM the Examiner's rejection of claims 1–22 under 35 U.S.C. § 103.

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