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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* IVORY WELLMAN KNIPFER, FRASER ALLAN SYME,  
and MATTHEW H. ZEMKE

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Appeal 2018-002633  
Application 12/191,170  
Technology Center 3600

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Before MURRIEL E. CRAWFORD, NINA L. MEDLOCK, and  
BRADLEY B. BAYAT, *Administrative Patent Judges*.

CRAWFORD, *Administrative Patent Judge*.

DECISION ON APPEAL  
STATEMENT OF THE CASE

Appellants<sup>1</sup> seek our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 1, 3–10, 12, and 14–20. We have jurisdiction under 35 U.S.C. § 6(b).

SUMMARY OF DECISION

We AFFIRM.

THE INVENTION

Appellants claim a mechanism that uses part substitution groups to enable a group of parts in a product order to be substituted with another

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<sup>1</sup> The real party in interest is International Business Machines Corporation. Appeal Br. 2.

group of parts, wherein the sets may have an unequal number of parts.

(Spec. ¶ 1, Title.)

Claim 1 is representative of the subject matter on appeal.

1. A method implemented by a computer for substituting a group of parts in an order, the computer implemented method comprising:

responsive to receiving a request for an order, the computer creating a parts list for the order;

the computer determining whether each part in the parts list is present in current inventory stock;

responsive to a determination that any of a first group of parts in the parts list is not present in current inventory stock, the computer determining a second group of parts in the current inventory stock is a valid substitution group for replacing the first group of parts, wherein the number of parts in the first group of parts is not equal to the number of parts in the second group of parts, wherein a first assembly includes the first group of parts and a second assembly includes the second group of parts, and the first group of parts of the first assembly are different from the second group of parts of the second assembly such that the first assembly is different from the second assembly in that the number of parts in the first assembly is not equal to the number of parts in the second assembly; and

the computer updating the order by replacing the first group of parts in the parts list with the identified second group of parts, wherein the second group of parts in the current inventory stock is a valid substitution group for replacing the first group of parts only if the first group of parts is located within a particular subset of the order.

#### THE REJECTION

Claims 1, 3–10, 12, and 14–20 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

## ANALYSIS

### 35 U.S.C. § 101 REJECTION

We will sustain the rejection of claims 1, 3–10, 12, and 14–20 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, . . . 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.”

*Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217–18 (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. The Federal Circuit has explained that “the ‘directed to’ inquiry applies a stage-one filter to claims, considered in light of the [S]pecification, based on whether ‘their character as a whole is directed to excluded subject matter.’” *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (quoting *Internet*

*Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)). It asks whether the focus of the claims is on a specific improvement in relevant technology or on a process that itself qualifies as an “abstract idea” for which computers are invoked merely as a tool. *See id.* at 1335–36.

In so doing we apply a “directed to” two prong test: 1) evaluate whether the claim recites a judicial exception, and 2) if the claim recites a judicial exception, evaluate whether the judicial exception is integrated into a practical application. 2019 REVISED PATENT SUBJECT MATTER ELIGIBILITY GUIDANCE, 84 Fed. Reg. 50, 57 (Jan. 7, 2019) (“*Guidance*”).

The Examiner determines that the claims are directed to substituting a group of parts in an order. (Final Act. 7.) The Examiner determines that the claims are similar to claims found abstract because the claims recite a certain method of organizing human activity, i.e., a fundamental economic practice (Final Act. 9). The Examiner finds that the claims do not add meaningful limitations to the abstract idea and that the functions performed could be done by generic computer elements and would be routine, conventional, and well-understood to one of ordinary skill in the computer arts.

The Specification supports the determination of the Examiner that the claims are directed to a certain method of organizing human activity, i.e., a fundamental economic practice. Specifically, the Specification discloses that in a manufacturing environment, a requisition for goods and services, described in terms of exchange of those goods and services for agreed compensation in a contractual form, is called an order (Spec. ¶ 2). An order manufacturing system determines if the order can be committed to for delivery on the dates requested (*id.*).

The recitations in claim 1, for example, also support this determination by reciting “method . . . for substituting a group of parts in an order,” “creating a parts list for the order,” “determining whether each part in the parts list is present in current inventory stock,” “determining a second group of parts in the current inventory stock is a valid substitution group for replacing the first group of parts,” and “updating the order by replacing the first group of parts in the parts list with the identified second group of parts.”

We, thus, agree with the Examiner’s determination that the claims recite substituting a group of parts in an order.

Also, we determine the steps of claim 1 also constitute “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.” *Elec. 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, 1355 (Fed. Cir. 2014) (claims directed to certain arrangements involving contractual relations are directed to abstract ideas). In this regard, the steps of claim 1 essentially are checking whether parts for an order are available and if not, determining which replacement parts will work. This is a method that can be and has been done in the human mind for many years. Thus, we find that the claims recite an abstract idea of methods of organizing human activity i.e. a fundamental economic practice and, in the alternative, a mental process.

Turning to the second prong of the “directed to test,” claim 1 merely requires a “computer.” The recitation of the word “computer” does not impose “a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.”

*Guidance*, 84 Fed. Reg. at 53. We find no indication in the Specification, nor do Appellants direct us to any indication, that the operations recited in independent claim 1 invoke any inventive programming, require any specialized computer hardware or other inventive computer components, i.e., a particular machine, or that the claimed invention is implemented using other than generic computer components to perform generic computer functions. *See DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) (“[A]fter *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible.”). In fact, the Specification discloses that a general purpose computer or other programmable data processing apparatus may be used. (Spec. ¶ 23.)

We also find no indication in the Specification that the claimed invention effects a transformation or reduction of a particular article to a different state or thing. Nor do we find anything of record, short of attorney argument, that attributes any improvement in computer technology and/or functionality to the claimed invention or that otherwise indicates that the claimed invention integrates the abstract idea into a “practical application,” as that phrase is used in the revised *Guidance*. *See Guidance*, 84 Fed. Reg. at 55.

Thus, claim 1 recites a judicial exception that is not integrated into a practical application and, thus, is directed to an “abstract idea.”

Turning to the second step of the *Alice* analysis, because we find that the claims are directed to an abstract idea, the claims must include an “inventive concept” in order to be patent-eligible, i.e., there must be an element or combination of elements that is sufficient to ensure that the claim

in practice amounts to significantly more than the abstract idea itself. *See Alice*, 573 U.S. at 217–18 (alteration in original) (quoting *Mayo*, 566 U.S. at 72–73).

The introduction of a computer into the claims does not alter the analysis at *Alice* 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 “implemen[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 featur[e]” that provides any “practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.”

*Alice*, 573 U.S. at 223 (alterations in original) (citations omitted).

Instead, “the relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer.” *Id.* at 225. They do not.

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 trading industry. *See Elec. Power Grp.*, 830 F.3d at 1354; *see also In re Katz*, 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 Am. Inc. v. InvestPic, LLC*, 890 F.3d 1016, 1022 (Fed. Cir. 2018) (citation omitted).

Considered as an ordered combination, the computer components of Appellants’ claims add nothing that is not already present when the steps are considered separately. The sequence of data reception-analysis-access/display 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) (holding that sequence of data retrieval, analysis, modification, generation, display, and transmission was abstract), *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) (holding sequence of processing, routing, controlling, and monitoring was abstract). The ordering of the steps is, therefore, ordinary and conventional.

The claims do not, for example, purport to improve the functioning of the computer itself. As we stated above, the claims do not 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. (*See, e.g.*, Spec. ¶ 23.) Thus, the claims at issue amount to nothing significantly more than instructions to apply the abstract idea of substituting parts using some unspecified, generic computer. Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 573 U.S. at 226.

We have reviewed all the arguments (Appeal Br. 12–25; Reply Br. 2–8) Appellants have submitted concerning the patent eligibility of the claims before us that stand rejected under 35 U.S.C. § 101. We find that our analysis above 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.

We are not persuaded of error on the part of the Examiner by Appellants' argument that claim 1 does not recite a fundamental economic practice and the determination that the claims are directed to a fundamental economic practice is not based on objective evidence. (Appeal Br. 12.) Claim 1 recites a method for substituting parts in an order. The Specification discloses that an order is an exchange of goods and services for agreed compensation in a contractual form. (Spec. ¶ 2.) Certain methods of organizing human activity in the form of fundamental economic principles including commercial interactions including sales activities are judicial exceptions. *Guidance*, 84 Fed. Reg. at 52. As claim 1 is a method

of substituting parts in an order, the claim recites the judicial exception of a fundamental economic practice.

As for the Appellants' assertion that evidence is required, we agree that although, at times, an Examiner should provide evidentiary support before a conclusion is made that a claim is directed to an abstract idea, the need for such a showing is evaluated on a case-by-case basis. Although, at times, evidence may be helpful, e.g., where facts are in dispute, we are unpersuaded that there is a categorical rule that it is always needed. *See Mortg. Grader, Inc. v. First Choice Loan Servs., Inc.*, 811 F.3d 1314, 1325–26 (Fed. Cir. 2016) (“[I]t is also possible, as numerous cases have recognized, that a § 101 analysis may sometimes be undertaken without resolving fact issues.”). To that end, we are not persuaded that it is needed here where the claims are clearly directed to contractual sales activity.

We are not persuaded of error on the part of the Examiner by Appellants' argument that the claims are not directed to a fundamental economic practice because the Examiner has not established that the claimed features are obvious in view of the prior art. (Appeal Br. 13.) To the extent Appellants maintain that the limitations of claim 1 necessarily amount to “significantly more” than an abstract idea because the claimed apparatus is allegedly patentable over the prior art, Appellants misapprehend the controlling precedent. Although the second step in the *Alice/Mayo* framework is termed a search for an “inventive concept,” the analysis is not an evaluation of novelty or non-obviousness, but rather, a search for “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.’” *Alice*, 573 U.S. at 217–18 (citation omitted). A

novel and nonobvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible. *See Mayo*, 566 U.S. at 90.

We are also not persuaded of error on the part of the Examiner by Appellants' argument that no human activities are recited in the claims. We do not agree. The Examiner determines that the claims are directed to a fundamental economic practice, which is a certain method of organizing human activity. *Guidance*, 84 Fed. Reg. at 52. The Specification discloses that in the manufacturing environment, a customer places an order for having a part manufactured which is clearly a human activity. In addition, the Specification clearly discloses that the invention is directed to a contract between the person placing the order and the manufacturer. (Spec. ¶ 2.)

Also we are not persuaded of error on the part of the Examiner by Appellants' argument that the claims are not directed to the process of collecting and analyzing data because the various court cases relied on by the Examiner are not applicable to the instant claims because the information processed in the instant application is not the same type of data processed. For example, Appellants argue that the claims include no digital images like the claims in *TLI Communications LLC v. AV Automotive LLC*, 823 F.3d 607 (Fed. Cir. 2016) and have nothing to do with insurance claim information like the claims in *Accenture Global Services, GmbH v. Guidewire Software*, 728 F.3d 1336 (Fed. Cir. 2013). However, it is not the actual information that is processed that is important, but rather it is the processing of information that could be processed in the human mind that is relevant to the question of patent eligibility. As we discussed above, "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.” *See SAP Am.*, 890 F.3d at 1022.

We are not convinced that the Examiner’s analysis is untethered from the claim language as argued by Appellants. (Appeal Br. 19.) We adopt the Examiner’s response to this argument found on pages 6–7 of the Answer. In addition, as we discussed above, the claim steps are steps taken to substitute parts which is the judicial exception determined by the Examiner.

We do not agree with the Appellants that the claimed features provide an improvement in the technical field of product manufacturing. Appellants argue that the group substitution mechanism provides several advantages over the existing manufacturing systems because it provides a point of execution process control that enables the fast and efficient use of available in stock inventory. (Appeal Br. 20.) In making this argument, Appellants rely on *DDR*. (Reply Br. 6–7; Appeal Br. 20.)

In *DDR*, the Court evaluated the eligibility of claims “address[ing] the problem of retaining website visitors that, if adhering to the routine, conventional functioning of Internet hyperlink protocol, would be instantly transported away from a host’s website after ‘clicking’ on an advertisement and activating a hyperlink.” *DDR*, 773 F.3d at 1257. There, the Court found that the claims were patent eligible because they transformed the manner in which a hyperlink typically functions to resolve a problem that had no “pre-Internet analog.” *Id.* at 1258. The Court cautioned, however, “that not all claims purporting to address Internet-centric challenges are eligible for patent.” *Id.* For example, in *DDR*, the Court distinguished the patent-eligible claims at issue from claims found patent-ineligible in *Ultramercial*. *See DDR*, 773 F.3d at

1258–59 (citing *Ultramercial*, 772 F.3d 709, 715–16 (Fed. Cir. 2014)). As noted there, the *Ultramercial* claims were “directed to a specific method of advertising and content distribution that was previously unknown and never employed on the Internet before.” *Id.* at 1258 (quoting *Ultramercial*, 772 F.3d at 714). Nevertheless, those claims were patent ineligible because they “merely recite[d] the abstract idea of ‘offering media content in exchange for viewing an advertisement,’ along with ‘routine additional steps such as updating an activity log, requiring a request from the consumer to view the ad, restrictions on public access, and use of the Internet.’” *Id.* (quoting *Ultramercial*, 772 F.3d at 715–16).

Appellants’ asserted claims are analogous to claims found ineligible in *Ultramercial* and distinct from claims found eligible in *DDR*. The ineligible claims in *Ultramercial* recited “providing [a] . . . media product for sale at an Internet website”; “restricting general public access to said media product”; “receiving from the consumer a request to view [a] . . . sponsor message”; and “if the sponsor message is an interactive message, presenting at least one query to the consumer and allowing said consumer access to said media product after receiving a response to said at least one query.” *Ultramercial*, 772 F.3d at 712. Similarly, Appellants’ asserted claims recite receiving, analyzing, modifying, and transmitting data. This is precisely the type of Internet activity found ineligible in *Ultramercial*. We note that, as we stated above, claim 1 does not recite an improvement to the computer recited in the claim.

We are not persuaded of error on the part of the Examiner by Appellants’ argument that the instant claims do not preempt all methods of substituting a group of parts. (Appeal Br. 22.) “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); *see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 701, 193 (2015) (“[T]hat the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract.”). And, “[w]here a patent’s claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot.” *Ariosa*, 788 F.3d at 1379.

In regard to Appellants’ argument directing the Examiner to the published streamlined analysis, we note that section 1(B)(3) of the 2014 INTERIM GUIDANCE ON PATENT SUBJECT MATTER ELIGIBILITY (79 Fed. Reg. 74618 (Dec. 16, 2014)) guidelines does not place a requirement on the Examiner. Rather, section 1(B)(3) is available to the Examiner as a discretionary streamlined § 101 *Alice/Mayo* analysis favoring Applicant. Section 1(B)(3) is explicit that “if there is doubt as to whether the applicant is effectively seeking coverage for a judicial exception itself, *the full analysis should be conducted.*” *Id.* at 74625 (emphasis added). Contrary to Appellants’ argument, the streamlined patent-eligibility analysis under section 1(B)(3) is not required to be available to Appellants; rather, it is at the Examiner's discretion. The Examiner choosing to perform a full § 101 *Alice/Mayo* analysis is not an error.

In view of the foregoing, we will sustain the Examiner’s rejection of claim 1. We will also sustain the Examiner’s rejection of claims 3, 4, 5, 9, 12, 14–16, and 19 because the Appellants have not argued the separate

eligibility of these claims.

In regard to claim 6, Appellants argue that the Examiner has failed to provide objective evidence that the features of claim 6 are routine generic computer performed steps. But, contrary to Appellants' argument, the Examiner did not find that the claimed determination step recited in claim 6, is well-understood, routine, and conventional. Instead, the Examiner determined that the limitations in claim 6 are substantially similar to the subject matter of claim 1. (Final Act. 9.) The only recitation in claim 6, like claim 1, which is in addition to the abstract idea is the recitation of a "computer." As such, the Examiner finds that the additional element of a computer is a generically-recited computer element that performs functions that would be routine, conventional, and well understood. In other words, the steps require no more than generic computer components performing generic computer functions — an observation wholly consistent with the Specification (*see* Spec. ¶ 23). Appellants make similar arguments regarding the recitations in claims 7, 8, 10, 17, 18, and 20, which are likewise not persuasive.

In view of the foregoing, we will sustain the rejection as it is directed to claims 6–8, 10, 17, 18, and 20.

#### CONCLUSIONS OF LAW

We conclude the Examiner did not err in rejecting claims 1, 3–10, 12, and 14–20 under 35 U.S.C. § 101.

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DECISION

The decision of the Examiner is affirmed.

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