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CHOY, PAN G	

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NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 14/688,619	Applicant(s) Romano et al.	
	Examiner PAN G CHOY	Art Unit 3624	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 3 February 2020.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☑ This action is **FINAL.** 2b) ☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1-8,10-18 and 20-22 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1-8,10-18 and 20-22 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

DETAILED ACTIONP

Notice of Pre-AIA or AIA Status

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Introduction

2. The following is a **Final** Office Action in response to Applicant's communications received on February 3, 2020. Claims 9 and 19 have been canceled.

Currently, Claims 1-8, 10-18 and 20-22 are pending, and Claims 1 and 11 are independent.

Response to Amendments

3. **The 35 U.S.C. § 112(b) rejection** as set forth in the previous Office Action is withdrawn in view of Application's Remarks that "any suitable processing or computing device for use in a restaurant environment" is a "restaurant device".

4. Applicant did not amend the claims, therefore the **35 U.S.C. § 101 rejection** as set forth in the previous Office Action is maintained.

Response to Arguments

5. Applicant's arguments filed on February 3, 2020 have been fully considered but they are not persuasive.

6. In the Remarks, on page 12, Applicant's argument regarding the 35 U.S.C. § 101 rejection that the use of at least one processor and at least one memory, as well as the device tracking, means that the claims *as a whole* cannot possible be performed mentally.

In response to Applicant's argument, the Examiner respectfully disagrees. Claim 1 recites "tracking a movement of the mobile device from a first restaurant to a second restaurant, associate the at least one second order with the at least one first order, and identify a division of the finalized payment for the at least first order and the at least one second order". These limitations, as drafted, under their broadest reasonable interpretation, cover performance of the limitations in the mind (including observation, evaluation and judgment). The recited additional elements for receiving orders, receiving payment information and triggering (transferring) proportion payments to the first restaurant device and the second restaurant device do not preclude the steps "tracking the movement of the mobile device, associating the second order with the first order, and identifying a division of the finalized payment for the first order and the second order" from practically being performed in the mind. The 2019 Guidance's instruction that, "[i]f a claim...covers performance in the mind but for the recitation of generic computer components, then it is still in the mental processes category unless the claim cannot practically be performed in the mind." See 2019 Guidance, 84 Fed. Reg. at 52 n.14 (citing Intellectual Ventures I LLC v. Symantec Corp., 838 F.3d 1307, 1318 (Fed. Cir. 2016)).

7. In the Remarks, on page 14, Applicant's arguments regarding the 35 U.S.C. § 101 rejection that the Office Action ignores the practical application recited in the claims.

In response to Applicant's arguments, the Examiner respectfully disagrees. As can be seen on page 10-11 of the previous Office Action, all elements were considered in the analysis. The fundamental requirement in Prong Two of the *Alice* analysis is to determine whether the additional elements in the claim that integrate the abstract idea into a practical application. Beyond the abstract idea, claim 1 recites the additional elements of "at least one processor", "a first restaurant device", "a second restaurant device", and "a mobile device". Here, these

additional elements are recited at a high level of generality that simply perform the steps for receiving payment information and triggering payments the first restaurant device and the second restaurant device based on the identified division of the finalized payments, which is nothing more than a generic computer for receiving information and transmitting information from/to the restaurant computer over a network. The Specification describes that "Payments are split amongst the restaurants according to the identified division. For example, a single restaurant could collect payments for the event, and a server computer could identifying (calculating) the proper division and the single restaurant's operator paying the other restaurant's operators. Automatic funds transfers could then be triggered, or the restaurant's operators could make payments amongst themselves." See ¶ 83, that is, one of the restaurant operator may collect the payments, use a computer to calculate the proper division, and pay the proper division of payments to the other restaurant operator. Thus, these additional elements, alone or in combination, do not reflect an improvement in the functioning of a computer device, or an improvement to other technology or technical field, effects a transformation or reduction of a particular article to a different state or thing, or applies or uses the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effect designed to monopolize the exception. Accordingly, the claims do not integrate the judicial exception into a practical application.

8. In the Remarks, on page 18, Applicant's arguments regarding the 35 U.S.C. § 101 rejection that even if each individual step recited in Claim 1 could theoretically be performed by a conventional computing system, the operations recited in claim 1 combine to create an order combination that is not well-understood, routine, or conventional and that is not previously known to the industry.

In response to Applicant's arguments, the Examiner respectfully disagrees. Claim 1 recites the additional elements of "at least one memory", "at least one processor", "a first restaurant device", "a second restaurant device". Beyond the abstract ideas, these additional elements, when taken individually and as an ordered combination, at best, the processor may perform the steps of "receive, from a first restaurant device at a first restaurant of the multiple restaurants, payment information for at least one first order associated with a mobile device;

receive, from a second restaurant device at the second restaurant, at least one second order without receiving the payment information; receive finalized payment from the second restaurant device at the second restaurant; and trigger (send/transmit) payments to the first restaurant device and the second restaurant device based on the identified division of the finalized payment." Any person with the ordinary skill in the art would know that the generic computers are built with the capability for receiving, storing, displaying and transmitting information between each other via a network. More particular, the functions of receiving and transmitting data over a network between devices have been recognized by the courts as merely well-understood, routine, and conventional functions of generic computers. See MPEP 2106.05(d)(II) (Receiving or transmitting data over a network, e.g., using the Internet to gather data, *Symantec,* 838 F.3d at 1321, 120 USPQ2d at 1362 (utilizing an intermediary computer to forward information); *TLI Communications LLC v. AV Auto. LLC,* 823 F.3d 612-13, 118 USPQ2d 1744, 1747-48 (Fed. Cir. 2016) (Gathering and analyzing information using conventional techniques and displaying the result); *OIP Techs., Inc., v. Amazon.com, Inc.,* 788 F.3d 1359, 1363, 115 USPQ2d 1090, 1093 (Fed. Cir. 2015) (sending messages over a network); Storing and retrieving information in memory, *Versata Dev. Group, Inc. v. SAP Am., Inc.,* 793 F.3d 1306, 1334, 115 USPQ2d 1681, 1701 (Fed. Cir. 2015). Besides, the *specification* also supports the view of the claim requires no more than a generic computer which can be used to implement the invention, such as "any suitable processing or computing device for use in a restaurant environment. For example, the computing devices 110 are shown here as representing desktop computers. However, *any other suitable computing devices could be used, such as laptop computers, tablet computers, smartphones, personal digital assistants, or other fixed or portable devices*" (see ¶ 25). Thus, generic computers performing generic computer functions to apply an abstract idea do not amount to significantly more than the abstract idea.

9. In the Remarks, on page 19, Applicant's arguments regarding the 35 U.S.C. § 101 rejection that the Office Action has not shown that an apparatus configured to track movement of a mobile device between restaurant is a conventional use of a mobile device or even that it is somehow an extra-solution activity, and the Office Action has not shown how restaurants or

groups of restaurants tracking movement of a mobile device is a conventional use of a mobile device.

In response to Applicant's arguments, the Examiner respectfully disagrees. The Office Action did not mention about tracking a movement of a mobile device is *conventional*, instead, it is an abstract idea that encompasses performance in a human mind by observing the movement of a customer associated with a mobile device, it is similar to a person who is watching a customer (with a mobile phone, or mobile cart) moves between different departments at a retail store. Here, the recited mobile device is nothing more than a movable object, such as a car, cart, or a customer carrying a mobile phone). Even if this mobile device was claimed to provide location information of the customer by using radio signals between cellular towers or the GPS of the mobile device, however, under the 2019 PEG, using such a mobile device for collecting customer location is a form of insignificant extra-solution activity merely for data gathering. See MPEP 2106.05(g).

10. In the Remarks, on page 20, Applicant's arguments regarding the 35 U.S.C. § 101 rejection that none of the cited cases shows a device that tracks a movement of a mobile device as being routine or conventional. The Office Action has failed to provide a reference for these concepts that are alleged to be well-understood, routine, or conventional uses of a computer or computer system.

In response to Applicant's arguments, the Examiner respectfully disagrees. However, *Berkheimer* does not require the Examiner to make a factual finding that all claim elements are well-understood, routine or conventional. Rather, a *Berkheimer* factual finding is required for *additional elements* or a *combination of additional elements* outside of the identified abstract idea. See *Berkheimer* Memo, p. 2 at: https://www.uspto.gov/sites/default/files/documents/memo-berkheimer-20180419.PDF.

11. In the Remarks, on page 21, Applicant argues that Burns and Lutnick, taken singularly or in combination, do not teach or suggest an electronic device which at least one processor that identifiers a division of the finalized payment for the at least one first order and the at least one second order, from different restaurants, associated with the mobile device, where the payment information is only submitted to the first restaurant device and the finalized payment with the

second restaurant device.

In response to Applicant's arguments, the Examiner respectfully disagrees. Lutnick discloses a system for arranging delivering service in a consolidated fashion including: receive a delivery order that a customer places with a merchant, determine one or more sources of items for the delivery order to the customer based on the reported inventories of the plurality of merchants; determine one or more delivery agents for making the delivery from one or more sources to the customer (see Abstract, col. 1, lines 43-49); the orders for one or more merchants may be collected by an order collector, such as a website may provide options for a user to select one or more items from one or more merchants. The payment for one or more order may be made through an order collector, and distribute among the merchants, referral service providers, delivery agents, and any other desired entity (see col. 3, lines 9-27). One or more sources may include a source that is different from a location where an in store customer places an order for delivery, one or more locations may include an in-store or warehouse location of a competitor of a merchant that receives the order through a virtual presence. Any number of sources may be used in any combination that allows for the order to be fulfilled in high speed fashion (see col. 55, lines 2-11). Lutnick further discloses a merchant, a referral service provider, or any entity may receive the payment and provide a portion to each other service provider (see col. 6, line 60 to col. 7, line 6). Thus, Lutnick a customer may order multiple items from one or more sources for high speed delivery and make a payment to one of the many entities.

Therefore, given the broadest reasonable interpretation to one ordinary skill in the art, Burns in view of Lutnick teaches the limitations in the form of Applicant claimed.

Claim Rejections - 35 USC § 101

12. The 35 U.S.C. §101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

13. **Claims 1-8, 10-18 and 20-22** are rejected under 35 U.S.C. 101 because the claimed invention is directed to an abstract idea without significantly more.

As per Step 1 of the subject matter eligibility analysis, it is to determine whether the claim is directed to one of the four statutory categories of invention, i.e., process, machine, manufacture, or composition of matter.

In this case, Claims 1-8, 10 and 21 are directed to an apparatus comprising memory and processor, which falls within the statutory category of a machine; and Claims 11-18, 20 and 22 are directed to a non-transitory computer readable medium, which falls within the statutory category of a product. Thus, Step 1 is satisfied.

In Step 2A of the subject matter eligibility analysis, it is to "determine whether the claim at issue is directed to a judicial exception (i.e., an abstract idea, a law of nature, or a natural phenomenon). Under this step, a two-prong inquiry will be performed to determine if the claim recites a judicial exception (an abstract idea enumerated in the 2019 Guidance), then determine if the claim recites additional elements that integrate the exception into a practical application of the exception. *See* 2019 Revised Patent Subject Matter Eligibility Guidance (2019 Guidance), 84 Fed. Reg. 50, 54-55 (January 7, 2019).

In Prong One, it is to determine if the claim recites a judicial exception (an abstract idea enumerated in the 2019 Guidance, a law of nature, or a natural phenomenon).

Here, claim 1 recites the limitation of "track a movement of the mobile device from the first restaurant to a second restaurant, associate at least one second order with the at least one first order…, and identify a division of the finalized payment for the at least one first order and the at least second order" are processes that, under their broadest reasonable interpretation, cover performance of the limitations in the mind but for the recitation of generic computer component. That is, other than reciting "***at least one processor***" for receive payment information from "***a first restaurant device***", receive at least one second order from "***a second restaurant device***",

receive finalized payment from the "second restaurant device", and trigger payments (send/transmit payments) to the "first restaurant device" and the "second restaurant device", nothing in the claim elements precludes the step from practically being performed in the mind (including observation, evaluation, judgment, and opinion). For example, tracking a movement of the mobile device from a first restaurant to a second restaurant is nothing more than observing the mobile device moves from the first restaurant to the second restaurant. The mere nominal recitation of a generic computer component (processor) does not take the claim limitation out of the mental processes grouping. See 2019 Guidance, 84 Fed. Reg. at 52.

The dependent claims recite the similar limitations, such as "identifying the performances of the restaurant's gross sales; identify a trend in each restaurant's performance; identify whether a specified one of the restaurants is visited more frequently"; divide payments for the two or more restaurants"; determine the reservation request cannot be satisfied and identify one or more restaurants that are able to satisfy the reservation", are also processes that cover performance of the limitations in the human mind (including observation, evaluation, judgment, and opinion), which are also fall within the mental processes grouping.

It is noted that the courts have held that if a claim, under its broadest reasonable interpretation, covers performance in the mind but for the recitation of generic computer components, then it is still in the mental processes category unless the claim cannot practically be performed in the mind. See *Intellectual Ventures I LLC v. Symantec Crop.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016) ("[W]ith the exception of generic computer-implementing steps, there is nothing in the claims themselves that foreclose them from being performed by a human, mentally or with pen and paper."). Thus, the claims recite an abstract idea.

In Prong Two, it is to determine if the claim recites additional elements that integrate the exception into a practical application of the exception.

The claims recite an additional element of "at least one processor" for performing the steps including: receive payment information from a first restaurant device at a first restaurant; receive at least one second order from a second restaurant device at the second restaurant; receive finalized payment from the second restaurant device at the second restaurant; trigger [send, transmit] payments to the first restaurant device and the second restaurant device". The combination of these additional elements do not integrate the abstract idea into a practical application because the at least one processor is recited at a high level of generality and is merely

invoked as a tool to perform the generic computer functions of receive and transmit information from/to the restaurant devices. As described in the claims, none of the limitations reflects an improvement in the functioning of a computer device, or an improvement to other technology or technical field, none of these limitations effects a transformation or reduction of a particular article to a different state or thing, or applies or uses the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effect designed to monopolize the exception. Accordingly, the claims do not integrate the judicial exception into a practical application.

In Step 2B of *Alice*, it is "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.'" *Id.* (alternation in original) (*quoting Mayo Collaborative Servs. v. Prometheus Labs., Inc.,* 132 S. Ct. 1289, 1294 (2012)). The "inventive concept" may arise in one or more of the individual claim limitations or in the ordered combination of the limitations. *Alice*, 134 S. Ct. at 2355. An "inventive concept" that transforms the abstract idea into a patent-eligible invention must be significantly more than the abstract idea itself, and cannot simply be an instruction to implement or apply the abstract idea on a computer. *Id.* at 2358.

The claims as described in Prong Two above, the additional elements in the claims amount to no more than mere instructions to apply the exception using a generic computer component. The same analysis applies here in Step 2B.

Here, the apparatus of claim 1 sets out seven steps performed by the computer components including "at least one memory", "at least one processor", "a first restaurant device", and "a second restaurant device". None of these computer components, viewed both individually and 'as an ordered combination, transform the nature of the claim into patent-eligible subject matter. *See Alice*, 134 S. Ct. at 2355 (*quoting Mayo,* 132, S. Ct. at 1297, 1298).

These additional elements, when taken individually, any person with the ordinary skill in the art would know that a memory is for storing information in a computer device, and the processor of a computer is built with the capabilities for executing computer instructions to perform the basic computer functions including receiving, storing, manipulating and transmitting

information from/to devices over a network. Thus, computers comprise memory and processor are expected in any information processing method. As such, the additional elements do not constitute significantly more. Further, use the first restaurant device at a first restaurant and the second restaurant device at a second restaurant for sending the information to the processor and the mobile device for tracking the movement are directed to the use of insignificant extra solution activity for data gather and transmitting information over a network. An example of a case identifying a concept relating to tracking or organizing information as abstract is *BASCOM Global Internet v. AT&T Mobility, LLC*, 827 F3.d 1341, 119 USPQ2d 11236 (Fed. Cir. 2016). When considered as an ordered combination, these additional elements do not add anything more than they considered individually because the processor is recited at a high level of generality that simply performs generic functions, at best, the processor may perform the steps of: receive data [payment information] from a first restaurant device at a first restaurant, and receive data [second order] from a second restaurant device, and trigger [send, transmit] payment to the first restaurant device and the second restaurant device. However, the functions of receiving and transmitting data over a network between devices have been recognized by the courts as merely well-understood, routine, and conventional functions of generic computers. See MPEP 2106.05(d)(II) (Receiving or transmitting data over a network, e.g., using the Internet to gather data, *Symantec,* 838 F.3d at 1321, 120 USPQ2d at 1362 (utilizing an intermediary computer to forward information); *TLI Communications LLC v. AV Auto. LLC,* 823 F.3d 612-13, 118 USPQ2d 1744, 1747-48 (Fed. Cir. 2016) (Gathering and analyzing information using conventional techniques and displaying the result); *OIP Techs., Inc., v. Amazon.com, Inc.,* 788 F.3d 1359, 1363, 115 USPQ2d 1090, 1093 (Fed. Cir. 2015) (sending messages over a network); Storing and retrieving information in memory, *Versata Dev. Group, Inc. v. SAP Am., Inc.,* 793 F.3d 1306, 1334, 115 USPQ2d 1681, 1701 (Fed. Cir. 2015). The *specification* also supports the view of the claim requires no more than a generic computer which can be used to implement the invention, such as "*any suitable processing or computing device for use in a restaurant environment. For example, the computing devices 110 are shown here as representing desktop computers. However, any other suitable computing devices could be used, such as laptop computers, tablet computers, smartphones, personal digital assistants, or other fixed or portable devices*" (see ¶ 25); and "*The processing device 204 may include any suitable number(s) and types of processor or other devices in any suitable arrangement*" (see ¶ 38); which covers any

generic computer and memory. Also, generic computers are known for storing data in the memory. The addition of a generic computer and the inherent store and receive functions are insufficient to transform the abstract idea of "identifying performance data for supporting restaurant incubator project" into an inventive concept. *Cf. Alice*, 134 S. Ct. at 2358 ("[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.") Thus, generic computers performing generic computer functions to apply an abstract idea do not amount to significantly more than the abstract idea.

For the foregoing reasons, claim 1 and its dependents cover subject matter that is judicially-excepted from patent eligibility under § 101. The other independent claim - computer-readable medium claim 11 parallels claim 1 - similarly covers claimed subject matter that is judicially-excepted from patent eligibility under § 101. The dependent claims describe various identifying and correlating steps which do not significantly transform the abstract idea of identifying performance data for supporting restaurant incubator project into a patent-eligible inventive concept.

Therefore, the claims as a whole, these elements do not provide meaningful limitations to transform the abstract idea into a patent eligible application of the abstract idea such that the claims amount to significantly more than the abstract idea itself. The claims are not patent eligible.

Claim Rejections - 35 USC § 103

14. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

15. The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102 of this title, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

16. **Claims 1-5, 7, 11-15, 17 and 21-22** are rejected under 35 U.S.C. 103 as being unpatentable over Burns et al., (US 2011/0258011, hereinafter: Burns), and in view of Lutnick et al., (US 10373281, hereinafter: Lutnick).

Regarding Claim 1, Burns discloses an apparatus comprising:

at least one memory configured to store information identifying performances of multiple restaurants (see ¶ 50, ¶ 54 and ¶ 62-63); and

at least one processor (see ¶ 47) configured to:

receive, from a first restaurant device at a first restaurant of the multiple restaurants, payment information for at least one first order associated with a mobile device (see ¶ 5, ¶ 16, ¶ 33, ¶ 38 and ¶ 40).

Burns discloses receiving customer order or part of an order from one or more first service waiting area, and one or more second service waiting areas (see ¶ 42-43). Burns does not explicitly disclose the following limitations; however, Lutnick in an analogous art of order delivery services discloses:

track a movement of the mobile device from the first restaurant to a second restaurant of the multiple restaurant (see col. 9, 51-62, col. 21, ll. 22-35, col. 68, ll. 3-17, and claim 7);

receive, from a second restaurant device at a second restaurant, at least one second order without receiving the payment information (see col. 1, lines 43-49, col. 3, ll. 9-19; col. 38, ll. 22-46); and

associate the at least one second order with the at least one first order based on the movement of the mobile device (see col. 7, ll. 25-65 col. 23, ll. 4-41; col. 34, ll. 46-65);

receive finalized payment from the second restaurant device at the second restaurant, the finalized payment associated with the payment information (see col. 37, ll. 48-65, col. 48, ll. 37-58);

identify a division of payments for the at least one first order and the at least one second order, from different restaurants, associated with the mobile device, where the payment information is only submitted to the first restaurant device and the finalized payment with the second restaurant device (see col. 3, lines 20-27, col. 37, ll. 48-65, col.48, ll. 50-58); and

trigger payments to the first restaurant device and the second restaurant device based on the identified division of the finalized payment (see col. 3, ll. 28-63; col. 23, ll. 47-60, and col 41, ll. 13-29).

It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the system of Burns to include the teaching of Lutnick in order to gain the commonly understood benefit of such adaption, such as providing the benefit of a more effective solution for payment collection. Since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Regarding Claims 2 and 12, Burns discloses the apparatus/medium, wherein the information identifying the performances of the restaurants comprises at least one of: gross sales

of the restaurants, numbers of customers served by the restaurants, and profits of the restaurants (see ¶ 67).

In addition, the limitations of claims 2 and 12 characterize the type of information is directed to nonfunctional descriptive material because they cannot exhibit any functional interrelationship with the way the steps are performed. Therefore, it has been held that nonfunctional descriptive material will not distinguish the invention from prior art in term of patentability. (*In re Gulack*, 217 USPQ 401 (Fed. Cir. 1983), *In re Ngai*, 70 USPQ2d (Fed. Cir. 2004), *In re Lowry*, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP 2111.05).

Regarding Claims 3 and 13, Burns discloses the apparatus/medium, wherein the at least one processor is further configured to identify a trend in each restaurant's performance (see ¶ 78).

Regarding Claims 4 and 14, Burns discloses the apparatus/medium, wherein the at least one processor is configured to correlate the performances of the restaurants by correlating peak customer visits to the restaurants over time (see ¶ 11 and ¶ 62).

Regarding Claims 5 and 15, Burns discloses the apparatus/medium, wherein the at least one processor is configured to correlate the peak customer visits to identify whether a specified one of the restaurants is visited more frequently when others of the restaurants are busier (see ¶ 60).

Regarding Claims 7 and 17, Burns discloses the apparatus/medium, wherein the computer program further comprises computer readable program code that when executed causes the at least one processor to:

collect information about services common to two or more of the restaurants (see ¶ 7-9 and ¶ 38); and

divide payments for the services among the two or more restaurants (see ¶ 67).

Regarding Claim 11, Burns discloses a non-transitory computer readable medium embodying a computer program (see ¶ 54), the computer program comprising computer readable program code that when executed causes at least one processor to:

obtain information identifying performances of multiple restaurants (see Fig. 7; ¶ 11 and ¶ 31); and

receive, from a first restaurant device at a first restaurant of the multiple restaurants, payment information for at least one first order associated with a mobile device (see ¶ 5, ¶ 16, ¶ 33, ¶ 38 and ¶ 40).

Burns discloses receiving customer order or part of an order from one or more first service waiting area, and one or more second service waiting areas (see ¶ 42-43). Burns does not explicitly disclose the following limitations; however, Lutnick discloses:

track a movement of the mobile device from the first restaurant to a second restaurant of the multiple restaurant (see col. 9, 51-62, col. 21, ll. 22-35, col. 68, ll. 3-17, and claim 7);

receive, from a second restaurant device at a second restaurant, at least one second order without receiving the payment information (see col. 1, lines 43-49, col. 3, ll. 9-19; col. 38, ll. 22-46); and

associate the at least one second order with the at least one first order based on the movement of the mobile device (see col. 7, ll. 25-65 col. 23, ll. 4-41; col. 34, ll. 46-65);

receive finalized payment from the second restaurant device at the second restaurant, the finalized payment associated with the payment information (see col. 37, ll. 48-65, col. 48, ll. 37-58);

identify a division of payments for the at least one first order and the at least one second order, from different restaurants, associated with the mobile device, where the payment information is only submitted to the first restaurant device and the finalized payment with the second restaurant device (see col. 37, ll. 48-65, col.48, ll. 50-58); and

trigger payments to the first restaurant device and the second restaurant device based on the identified division of the finalized payment (see col. 3, ll. 28-63; col. 23, ll. 47-60, and col 41, ll. 13-29).

It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the system of Burns to include the teaching of Lutnick in order to gain the commonly understood benefit of such adaption, such as providing the benefit of a more effective solution for payment collection. Since the claimed invention is merely a combination of old elements, and in the combination each

element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Regarding Claims 21 and 22, Burns does not explicitly disclose the following limitations; however Lutnick discloses the apparatus/medium, wherein the customer is tracked through a telephone number associated with the mobile device (see col. 9, ll. 51-62; and col. 23, ll. 34-61). It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the system of Burns to include the teaching of Lutnick in order to gain the commonly understood benefit of such adaption, such as providing the benefit of a more effective . Since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

17. **Claims 6 and 16** are rejected under 35 U.S.C. 103 as being unpatentable over Burns and in view of Lutnick as applied to claims 1-5, 7, 11-15, 17 and 21-22 above, and further in view of Kamdar, (US 8468062 B1).

Regarding Claims 6 and 16, Burns and Lutnick do not explicitly disclose the following limitations; however, Kamdar in an analogous art for multiple party order coordination discloses the apparatus/medium, wherein the computer program further comprises computer readable program code that when executed causes the at least one processor to:

collect information about supplies needed by the restaurants (see col. 10, ll. 15-36 and claim 15); and

combine the information about the supplies in order to consolidate supply orders for the multiple restaurants (see col. 13, ll. 46 to col. 14, ll. 4).

It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the system of Burns and in view of Lutnick to include the teaching of Kamdar in order to gain the commonly understood benefit of such adaption, such

as providing the benefit of a more optimal solution to increase saving with lager order purchase and shipping cost. Since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

18. **Claims 8 and 18** are rejected under 35 U.S.C. 103 as being unpatentable over Burns and in view of Lutnick as applied to claims 1-5, 7, 11-15, 17 and 21-22 above, and further in view of Bossert, (US 2009/0292566) and Stone et al., (US 7240025 B2).

Regarding Claims 8 and 18, Burns and Lutnick do not explicitly disclose the following limitations; however, Bossert in an analogous art for restaurants management discloses the apparatus/medium, wherein the computer program further comprises computer readable program code that when executed causes the at least one processor to:

receive a reservation request for a specified one of the restaurants (see ¶ 9, ¶ 77 and claim 43) and ;

determine that the reservation request cannot be satisfied for the specified restaurant (see ¶ 9-11, ¶ 59);

It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the system of Burns and in view of Lutnick to include the teaching of Bossert in order to gain the commonly understood benefit of such adaption, such as providing the benefit of a more optimal solution to increase customer satisfaction. Since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Burns, Lutnick and Bossert do not explicitly disclose the following limitations; however, Stone in an analogous art for referring service discloses

identify one or more others of the restaurants that are able to satisfy the reservation request (see col. 24, ll. 12-45); and

provide a list identifying the one or more other restaurants that are able to satisfy the reservation request to a user (see col. 23, ll. 41-67 and col. 28, ll. 14-24).

It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the system of Burns and in view of Lutnick and Bossert to include the teaching of Stone in order to gain the commonly understood benefit of such adaption, such as providing the benefit of a more optimal solution to increase customer satisfaction. Since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

19. **Claims 10 and 20** are rejected under 35 U.S.C. 103 as being unpatentable over Burns and in view of Lutnick as applied to claims 1-5, 7, 11-15, 17 and 21-22 above, and further in view of Ruul, (US 2007/00011172).

Regarding Claims 10 and 20, Burns and Lutnick do not explicitly disclose the following limitations; however, Ruul in an analogous art for e-community management discloses the apparatus/medium, wherein the computer program further comprises computer readable program code that when executed causes the at least one processor to:

collect information about exchanges of supplies between the restaurants (see ¶ 16); and

identify any of the restaurants needed to reconcile with other of the restaurants as a result of the exchanges (see ¶ 5).

It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the system of Burns and in view of Lutnick to include the teaching of Ruul in order to gain the commonly understood benefit of such adaption, such as enhanced the business operation in the case of supply shortage. Since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Suthar, (US 2004/0143503) discloses a system for identifying trends and tracking performance and error statistics on each restaurant to allow personnel to proactively monitor the effectiveness and take action to upgrade or replace failure components.
- Tomkins et al., (US 2016/0371425) discloses a method for determining a characteristic of a location based on the number of people in a population present at the location during a time period.
- Lovegreen et al., (US 2005/0080676) discloses a method for reporting and monitoring restaurant performance information for a plurality of restaurants.
- Olewicz et al., (US 6973437) discloses a system for providing real time data about the performance of each restaurant in the chain in marking strategic decisions such as how to improve quality, performance, profitability and build more restaurants.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAN G CHOY whose telephone number is (571)270-7038. The examiner can normally be reached on 5/4/9 compressed work schedule.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christine Behncke can be reached on 571-272-8103. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PAN G CHOY/
Primary Examiner, Art Unit 3624

REMARKS

Claims 1-8, 10-18, and 20-22 were pending in this application.

Claims 1-8, 10-18, and 20-22 were rejected.

Claims 1 and 11 have been amended as shown above.

Claims 21 and 22 were canceled.

Claims 1-8, 10-18, and 20 are now pending in this application.

Reconsideration of the claims is respectfully requested.

With respect to all claim amendments, the Applicant does not concede in this application that the subject matter of the claims prior to the amendments is not patentable over the references cited in the Final Office Action. The present claim amendments are made only for facilitating expeditious prosecution of the application. The Applicant respectfully reserves the right to pursue these and other claims in one or more continuations and/or divisional patent applications.

I. EXAMINER INTERVIEW

A telephonic interview was conducted on July 9, 2020 between the Applicant's representative and Examiner Choy. The Applicant's representative would like to thank Examiner Choy for his time and consideration during this interview.

During the interview, Examiner Choy and the Applicant's representative discussed the subject matter eligibility of the claims. No exhibits were shown, and no demonstrations were conducted. No agreement with respect to allowable subject matter was reached during the interview.

I. REJECTION UNDER 35 U.S.C. § 101

Claims 1-8, 10-18, and 20-22 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. This rejection is respectfully traversed.

There are two separate requirements under 35 U.S.C. § 112(b). MPEP § 2171. The first is subjective and requires that the claims must set forth the subject matter that the *Applicants* regard as their invention. *Id.* The second is objective and requires that the claims must particularly point out and distinctively define the metes and bounds of the subject matter that will be protected by the patent grant (*i.e.*, whether the scope of the claim is clear to one of ordinary skill in the art). *Id.* The Examiner should explain whether the rejection is based on indefiniteness or on the failure to claim what the Applicants regard as their invention. *Id.* (*citing Ex parte Ionescu*, 222 U.S.P.Q. 537, 539 (Bd. App. 1984)).

The Office Action states, "Claims 1 and 11 recite 'restaurant device' renders the claims indefinite because it is unclear as to what a 'restaurant device' mean with respect to the claimed subject matter." *Office Action*, p. 7. At a minimum, paragraph [0025] states "Each device 110 represents any suitable processing or computing device for use in a restaurant environment."

Accordingly, the Applicant respectfully requests that the § 112(b) rejection be withdrawn.

II. REJECTION UNDER 35 U.S.C. § 101

Claims 1-8, 10-18, and 20-22 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. This rejection is respectfully traversed.

Step 2A: Prong One

The *Guidance* specifically states that the "2019 Revised Patent Subject Matter Eligibility Guidance supersedes MPEP 2106.04(II) (Eligibility Step 2A: Whether a Claim Is Directed to a

Judicial Exception) to the extent it equates claims 'reciting' a judicial exception with claims 'directed to' a judicial exception, along with any other portion of the MPEP that conflicts with this guidance." *Guidance*, page 6. "The USPTO is revising its examination procedure with respect to the first step of the Alice/Mayo test ... by: (1) providing groupings of subject matter that is considered an abstract idea; and (2) clarifying that a claim is not 'directed to' a judicial exception if the judicial exception is integrated into a practical application of that exception." *Guidance*, page 4.

The *Guidance* states:

> [T]he 2019 Revised Patent Subject Matter Eligibility Guidance extracts and synthesizes key concepts identified by the courts as abstract ideas to explain that the abstract idea exception includes the following groupings of subject matter, when recited as such in a claim limitation(s) (that is, ***when recited on their own or per se***):
>
> a) **Mathematical concepts** – mathematical relationships, mathematical formulas or equations, mathematical calculations;
>
> b) **Certain methods of organizing human activity** – 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 interactions between people (including social activities, teaching, and following rules or instructions); and
>
> c) **Mental processes** – concepts performed in the human mind (including an observation, evaluation, judgment, opinion).
> *Guidance*, pages 9-10. [Emphasis Added].

The Office Action states that "claim 1 recites the limitation of 'identify a movement of the customer from the first restaurant to a second restaurant', is a process that, under its broadest reasonable interpretation, covers performance of the limitation in the mind but for the recitation of [a] generic computer component. That is, other than reciting 'through a mobile device', nothing in the claim element precludes the step from practically being performed in the mind." *Office Action*,

pages 8-9. MPEP § 2106.04(a)(2) states that "The courts have used the phrase 'an idea of itself' to describe an idea standing alone such as an uninstantiated concept, plan or scheme, as well as a mental process (thinking) that 'can be performed in the human mind, or by a human using a pen and paper.'" An apparatus with at least one memory and at least one processor tracking a mobile device is not solely "thinking" and is not performed using a pen and paper. That is, the use of at least one processor and at least one memory, as well as the device tracking, means that the claims *as a whole* cannot possibly be performed mentally. Also, Claim 1 has been amended to recite that the tracking is based on detecting that the mobile device has transferred connection from a first wireless network of a first restaurant to a second wireless network. A human mind cannot perceive wireless connections between a device and a node. Therefore, the tracking operation cannot be observed.

Furthermore, the claim elements of "receive finalized payment from a second restaurant device" and "trigger payments to the first restaurant device and the second restaurant device" are both non-mental operations that cannot be performed by thinking in the human mind. Receiving a finalized payment and triggering payments are not "collecting information." Transferring money from one account to another (receiving payments and triggering payments) is cannot be performed in the human mind. Thus, Claim 1 when considered as a whole cannot possibly be performed solely in the mind and is not directed to a mental process.

The Office Action cites to the 2019 Guidance, which states "[i]f a claim... covers performance in the mind but for the recitation of generic computer components, then it is still in the mental processes category unless the claim cannot practically be performed in the mind." See 2019 Guidance, 84 Fed. Reg. at 52 n. 14 (citing Intellectual ventures I LLC v. Symantec Corp., 838 F.3d 1307, 1318 (Fed. Cir. 2016)). The Office Action further states "The recited additional

elements for receiving order, receiving payment information and triggering (transferring) proportional payments to the first restaurant device and the second restaurant device do not preclude the steps 'tracking the movement of the mobile device, associating the second order with the first order, and identifying a division of the finalized payment for the first order and the second order' from practically being performed in the mind." *Office Action*, p. 3. The statement in the Office Action contradicts the Guidance. The Guidance refers to "the claim" and not "specific features of the claim". As such, any features of the claim that cannot be performed in the mind make the overall claim not directed to a mental process. In fact, if the steps of "receiving orders, receiving payment information, and triggering (transferring) proportion payments to the first restaurant device and the second restaurant device" cannot be performed in the human mind, then it (the claim) is not in the mental processes category.

The *Guidance* states "If the claim does not recite a judicial exception (a law of nature, natural phenomenon, or subject matter within the enumerated groupings of abstract ideas in Section I), then the claim is eligible at Prong One of revised Step 2A. This concludes the eligibility analysis, except in the rare circumstance described below." *Id.* By the process described in the *Guidance*, the eligibility analysis for Claim 1 is now concluded, and Claim 1 and its dependent claims are patent-eligible. For similar reasons, the eligibility analysis for Claim 11 is now concluded, and Claim 11 and its dependent claims are patent-eligible.

Step 2A: Prong Two

If the Office somehow believes that the instant claims fall into "the rare circumstance in which an examiner believes a claim limitation that does not fall within the enumerated groupings of abstract ideas should nonetheless be treated as reciting an abstract idea," the Office should evaluate whether the claim as a whole integrates the recited tentative abstract idea into a practical

application. *Guidance*, page 25. Of course, the Office should justify why the instant claims qualify as such a "rare circumstance."

For Prong Two of the *Guidance*, the Office needs to "evaluate integration into a practical application by: (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception(s); and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application, using one or more of the considerations laid out by the Supreme Court and the Federal Circuit." *Guidance*, page 19. The Office Action states:

> The claims recite an additional element of "at least one processor" for performing the steps including: receive payment information from a first restaurant device at a first restaurant; receive at least one second order from a second restaurant device at the second restaurant; trigger [send, transmit] payments to the first restaurant device and the second restaurant device". The combination of these additional elements do not integrate the abstract idea into a practical application because the at least one processor is recited at a high level of generality and is merely invoked as a tool to perform the generic computer functions of receive and transmit information from/to restaurant devices. As described in the claims, none of the limitations reflects an improvement in the functioning of a computer device, or an improvement to other technology or technical field, none of these limitations effects a transformation or reduction of a particular article to a different state of thing, or applies or uses the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claims as a whole is more than a drafting effect designed to monopolize the exception. Accordingly, the claims do not integrate the judicial exception into a practical application. *Office Action*, page 11.

The Applicant respectfully disagrees. The claim features cited by the Office Action clearly apply the alleged abstract idea ("identify a movement of the customer from the first restaurant to a second restaurant") in a meaningful way of managing payment systems in multiple restaurants.

First, the features of "receiving finalized payments..." and "triggering payments..." are both additional elements of the claims. Failure to consider these operations as additional features is proper in a 101 analysis. Second, the processor receives an actual payment and the payment information is just related to the actual payment.

Third, the features of Claim 1 provide an improvement to computer technology, namely reducing processing time of different systems. For example, when two transactions occur separately, the first transaction performs a communication with the customer bank and the first restaurant bank and the second transaction performs a communication with the customer bank and the second restaurant bank. The apparatus of Claim 1 merely performs a single communication with the customer bank, reducing the amount of processing by a computer system.

Fourth, these additional features provide an improvement to another technology or technical field, in particular the technical field of payment processing. As restated in the *Update*, "Consideration of improvements is relevant to the integration analysis regardless of the technology of the claimed invention. That is, the consideration applies equally whether it is a computer-implemented invention, an invention in the life sciences, or any other technology. Additionally, the 2019 Update states that "when determining whether the claim as a whole integrates a judicial exception into a practical application is whether the claimed invention improves the functioning of a computer or other technology," by first evaluating the specification to "determine if the disclosure provides sufficient details such that one of ordinary skill in the art would recognize the claimed invention as providing an improvement" and second "if the specification sets forth an improvement in technology, the claim must be evaluated to ensure that the claim itself reflects the disclosed improvement" *2019 Update*, p. 12.

"If the claim as a whole integrates the recited tentative abstract idea into a practical application, the claim is not directed to a judicial exception (Step 2A: NO) and is eligible (thus concluding the eligibility analysis)." *Id.* Claim 1 recites "trigger payments to the first restaurant device and the second restaurant device based on the identified division of the finalized payment," which provides for using the judicial exception (allegedly "tracking movement of a customer") in some other meaningful way (improved electronic payment systems), which goes beyond generally linking the use of the judicial exception to a particular technological environment. Thus, even if the Office chooses to ignore the enumerated groupings of abstract ideas presented in Prong One of the *Guidance*, the practical application to which the claims are directed ensures that the claims are not directed to a judicial exception and are statutory. Again, the eligibility analysis of Claims 1 and 11 and their dependent claims is concluded as described in the *Guidance*.

Step 2B:

In addition, the claims above include additional elements that show that the claims amount to significantly more than identifying a movement of a mobile device. According to MPEP § 2106.05(d), a consideration when determining whether a claim recites significantly more than a judicial exception is whether the additional elements are well-understood, routine, conventional activities previously known to the industry. If the additional element (or combination of elements) is a specific limitation other than what is well-understood, routine, and conventional in the field (for instance, because it is an unconventional step that confines the claim to a particular useful application of the judicial exception), this consideration favors eligibility.

A memorandum titled "Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*)" ("*Berkheimer Memo*") was issued by the Deputy Commissioner for Patent Examination Policy on April 19, 2018.

The *Berkheimer Memo* clarifies the analysis under Step 2B. In a Step 2B analysis, an additional element (or combination of elements) is not well-understood, routine, or conventional unless the Office finds, and expressly supports a rejection in writing with, one or more of the following:

1. A citation to an express statement in the specification or to a statement made by an applicant during prosecution that demonstrates the well-understood, routine, conventional nature of the additional element(s).
2. A citation to one or more of the court decisions discussed in MPEP § 2106.05(d)(II) as noting the well-understood, routine, conventional nature of the additional element(s).
3. A citation to a publication that demonstrates the well-understood, routine, conventional nature of the additional element(s).
4. A statement that the Examiner is taking official notice of the well-understood, routine, conventional nature of the additional element(s).

If an applicant challenges the Office's position that additional elements are well-understood, routine, conventional activity, the Office should re-evaluate whether it is readily apparent that the additional elements are in actuality well understood, routine, conventional activities to those who work in the relevant field. To represent well-understood, routine, conventional activity, the additional elements must be widely prevalent or in common use in the relevant field, comparable to the types of activity or elements that are so well-known that they do not need to be described in detail in a patent application to satisfy 35 U.S.C. § 112(a).

The elements of Claim 1 are significantly more than simply routine or fundamental functions. Rather, the above-quoted features are specific elements other than what is well-understood, routine, and conventional in the field. The above-quoted features are also

steps/functions that confine the claims to a particular useful application or are otherwise meaningful elements beyond generally linking the use of a judicial exception to a particular technological environment. The recited claim elements are more than sufficient to show that the claims amount to significantly more than an attempt to patent something that is routine or fundamental. This includes the recitations regarding at least one processor configured to receive, from a first restaurant device at a first restaurant of multiple restaurants, payment information for at least one first order associated with a mobile device; track a movement of the mobile device from the first restaurant to a second restaurant of the multiple restaurants; receive, from a second restaurant device at the second restaurant, at least one second order without receiving the payment information; receive finalized payment from the second restaurant device at the second restaurant, the finalized payment associated with the payment information; identify a division of the finalized payment for the at least one first order and the at least one second order, from different restaurants, associated with the mobile device, where the payment information is only submitted to the first restaurant device and the finalized payment with the second restaurant device; and trigger payments to the first restaurant device and the second restaurant device based on the identified division of the finalized payment.

It cannot be said that the functions performed in Claim 1 are purely conventional. Even if each individual step recited in Claim 1 could theoretically be performed by a conventional computing system (which is not the proper test), the operations recited in Claim 1 combine to create an ordered combination that is not well-understood, routine, or conventional and that is not previously known to the industry.

The Office Action merely states that "Any person with the ordinary skill in the art would know that a memory is for storing information in a computer device ,and the processor of a computer is built with the capabilities for executing computer instructions to perform the aisc computer functions including receiving, storing, manipulating and transmitting information from/to device over a network. Thus, computer comprise memory and processor are expected in any information processing method. As such, the additional elements do not constitute significantly more." *Office Action*, pp. 10-11. The Office Action appears to minimalize the significance of a payment processing by comparing it to "tracking or organizing information" in *BASCOM Global Internet v. AT&T Mobility, LLC*. Payment processing may inherently include transmission and reception of information, but processing a payment actually transfers funds in a meaningful way above and beyond the reporting information of the processing. Transferring money from one account to another (receiving payments and triggering payments) is not merely transmitting or receiving information.

Yet, the Office Action has not shown that an apparatus configured to track movement of a mobile device between restaurants is a conventional use of a mobile device or even that it is somehow an extra-solution activity. This functionality cannot be an "extra-solution" activity since tracking the mobile device allows other functions recited in Claim 1 to occur. Also, the Office Action continues to improperly ignore the additional features by claiming that they are performed by generic computer components. The Office Action has not shown how restaurants or groups of restaurants tracking movement of a mobile device is a conventional use of a mobile device.

The claims in *BASCOM* were directed to filtering content on the Internet. Filtering of Internet content is not the same as or similar to the functions recited in Claim 1. None of *TLI Communications v. AV Auto* (classifying an image and storing the image based on its

classification), *Versata Development Group, Inc. v. SAP America, Inc.* (using organizational and product group hierarchies to determine a price), and *Content Extraction & Transmission, LLC v. Wells Fargo Bank, Nat'l Ass'n* (recognizing portions of hard copy documents corresponding to a first data field) are similar to the elements presented in Claim 1. That is, none of the cited cases shows a device that tracks a movement of a mobile device as being routine or conventional. The Office Action has failed to provide a reference for these concepts that are alleged to be well-understood, routine, or conventional uses of a computer or computer system.

As noted and discussed before, an apparatus having a memory and a processor does not instantly render the claim ineligible subject matter as asserted by the Office Action. For example, Claims 1-3 of Example 3 and Claims 2 and 3 of Example 35. Similar to Claim 2 of Example 35, the claims of the present application present a combination of steps that operates in a non-conventional and non-generic way that a customer can pay for multiple tabs at different restaurants in a single transaction. In combination, the steps of Claim 1 do not represent merely gathering data for comparison or for processing a transaction, instead set up a sequence of events that address unique complications in a multi-transaction currency processing. The combination of tracking a wireless connection of a client device to determine tabs at different restaurants. This combination of tracking steps is not a conventional method for determining tabs to jointly process. The Office Action has failed to present even one of the required writings (noted above) to show that the features of tracking a client device to determine tabs for processing. Thus, Claim 1 includes additional elements that represent significantly more because they are a practical implementation of an alleged abstract idea for transaction processing in a non-conventional and non-generic way, "**even though the steps use well-known components**" (a processor and a memory). (*See Claim 2 of Example 35 of the Guidance*).

Claim 1 recites significantly more than the alleged abstract idea, so Claim 1 and its dependent claims are patent-eligible under § 101. Similar arguments apply to Claim 11 and its dependent claims, so these claims are also patent-eligible under § 101. Accordingly, the Applicant respectfully requests that the § 101 rejection be withdrawn.

III. REJECTION UNDER 35 U.S.C. § 103

Claims 1-5, 7, 11-15, 17, 21, and 22 were rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Publication No. 2011/0258011 ("*Burns*") in view of U.S. Patent No. 10,373,281 ("*Lutnick*"). Claims 6 and 16 were rejected under 35 U.S.C. § 103 as being unpatentable over *Burns* and *Lutnick* in view of U.S. Patent No. 8,468,062 ("*Kamdar*"). Claims 8 and 18 were rejected under 35 U.S.C. § 103 as being unpatentable over *Burns* and *Lutnick* in view of U.S. Publication No. 2009/0292566 ("*Bossert*") and U.S. Patent No. 7,240,025 ("*Stone*"). Claims 10 and 20 were rejected under 35 U.S.C. § 103 as being unpatentable over *Burns* and *Lutnick* in view of U.S. Publication No. 2007/0011172 ("*Ruul*"). This rejection is respectfully traversed.

In *ex parte* examination of patent applications, the Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142. Absent such a *prima facie* case, the Applicant is under no obligation to produce evidence of nonobviousness. *Id.*

Claim 1 recites an apparatus comprising:

> at least one memory configured to store information identifying performances of multiple restaurants and store order information including tabs of a customer at the multiple restaurants and payment information related to the customer; and
>
> at least one processor configured to:
>
> detect a mobile device associated with the customer wirelessly connecting to a wireless network of a first restaurant of the multiple restaurants;

identify the payment information related to the detected mobile device;

receive, from a first restaurant device at the first restaurant, a first tab for at least one first order associated with the mobile device;

update the order information for the customer with the first tab based on the identified mobile device associated with the at least one first order;

track a movement of the mobile device from the first restaurant to a second restaurant of the multiple restaurants based on the mobile device transferring from the wireless network of the first restaurant to a wireless network of the second restaurant;

receive, from a second restaurant device at the second restaurant, a second tab for at least one second order without receiving the payment information;

update the order information for the customer with the second tab based on the identified mobile device with the at least one second order;

receive finalized payment based on the order information using the payment information, wherein the payment information is only applied to the finalized payment;

identify a division of the finalized payment for the ~~at~~ first tab and the second tab, from different restaurants, associated with the mobile device; and

trigger payments to the first restaurant device and the second restaurant device based on the identified division of the finalized payment [Emphasis Added].

Support for the above-identified amendment can be found in the Specification as filed, such as in paragraphs [0026] and [0085]-[0088]. No new matter has been added.

Claim 1, as amended, renders the rejection moot because *Burns* and *Lutnick*, taken singularly or in combination, does not disclose receiving a first tab from a first restaurant device.

Burns is directed to systems and methods for restaurant management and more particularly to automated systems and methods for restaurant management. *Burns*, par. [0001]. The cited portions of *Burns* describe a restaurant having multiple order windows and a customer can order from any order window. The restaurant can have multiple payment windows that the customer can pay for the order at any payment window. The order is placed on a display in the restaurant and

"bumped" when served. *Burns*, pars. [0038]-[0042]. None of the device in the restaurant transmit a tab to an apparatus that updates order information with the first tab based on identifying a mobile device wirelessly connected to the wireless network of the first restaurant.

Burns and *Lutnick*, taken singularly or in combination, do not teach or suggest an electronic device with at least one processor that tracks a movement of the mobile device from the first restaurant to a second restaurant of the multiple restaurants based on the mobile device transferring from the wireless network of the first restaurant to a wireless network of the second restaurant. The Office Action concedes that *Burns* does not disclose the features of tracking a movement of the mobile device from the first restaurant to a second restaurant, but incorrectly asserts that these features are taught by column 9, lines 51-62, column 21, lines 22-35 and column 68, lines 3-17 of *Lutnick*. This is incorrect.

Lutnick is directed to referral and/or delivery services are described, which may include billing merchants for delivery services in a consolidated fashion, some embodiments may include interactions with point of sale systems. *Lutnick*, Abstract. For convenience of discussion, column 9, lines 51-62, column 21, lines 22-35 and column 68, lines 3-17 of *Lutnick* are reproduced below.

> In some embodiments, a location of a merchant device may be used by a service to determine a delivery zone associated with the merchant. For example, a food truck or other merchant that may have a mobile store front may desire to provide delivery services for some distance around the merchant location. A mobile device may move along with the location (e.g., as an employee moves the location). In some embodiments, a mobile application may report gps coordinates to a service. In some embodiments, a third party may report device locations to a service (e.g., based on gps location, based on cell tower triangulation, based on wifi networks accessed, and so on).
> *Lutnick*, 9: 51-62.

> In some embodiments, a customer may move locations from time to time when a delivery is incoming. For example, a customer may order lunch in a park. While in the park waiting for lunch, the

> customer may move from location to location within the park. Such location may be tracked and sent to a delivery agent and/or service. The updated location and/or direction to the updated location may be received to a delivery agent so that the delivery agent can find the customer to complete delivery. As another example, a law firm may desire to deliver a letter to a client and the client's movement may similarly be tracked to determine a delivery location. Accordingly, by using such functionality, a customer may be able to make some movement from location to location while a delivery is incoming.
> *Lutnick*, 21: 22-35.

> determining an unavailability result, by determining whether at least one first item of the items is unavailable for delivery based on a condition of the high speed delivery for the at least one first item using location information received in substantially real time, via a communication network, from substantially real time tracking of location of a mobile device of at least one mobile delivery agent of the one or more delivery agents,
> *Lutnick*, 68:3-17

The cited portions of *Lutnick* merely describe tracking a user for adjusting a delivery point, but only describes using a single connection (GPS) while moving. The tracking of the movement of the client device in *Lutnick* is not based on connecting to different wireless networks in different restaurants. *Lutnick*, taken singularly or in combination with *Burns*, does not teach or suggest an electronic device with at least one processor that "tracks a movement of the mobile device from the first restaurant to a second restaurant of the multiple restaurants based on the mobile device transferring from the wireless network of the first restaurant to a wireless network of the second restaurant," as recited in Claim 1.

Burns and *Lutnick*, taken singularly or in combination, also do not teach or suggest an electronic device with at least one processor that receives, from a second restaurant device at the second restaurant, a second tab for at least one second order without receiving the payment information. The Office Action concedes that *Burns* does not disclose the features of tracking a movement of the mobile device from the first restaurant to a second restaurant, but incorrectly

asserts that these features are taught by column 1, lines 43-49, column 3, lines 9-19 and column 38, lines 22-46 of *Lutnick*. This is incorrect. For convenience of discussion, column 1, lines 43-49, column 3, lines 9-19 and column 38, lines 22-46 of *Lutnick* are reproduced below.

> receive information regarding inventories of a plurality of merchant from a plurality of point of sale systems; receive an indication of a delivery order that a customer places with a merchant of the plurality of merchants; determine one or more sources of items for a high speed delivery of the delivery order to the customer based on the reported inventories of the plurality of merchants; determine one or more delivery agents for making the high speed delivery from the one or more sources to the customer;.
> *Lutnick*, 1: 43-49.

> In some embodiments, orders for one or more merchants may be collected by an order collector and/or referral/delivery service such as a website operated at www.delivery.com. Such a website may provide options for a user to select one or more items from one or more merchants to order and/or have delivered. Such a website may be operated at one or more web servers and or other servers. Such a web site may be reached over the Internet using a web browser, over another network, and so on. Other methods of submitting orders may be used, such as telephone, fax, email, proprietary software, and so on.
> *Lutnick*, 3: 9-19.

> Some embodiments may include suggesting a merchant and/or goods to a customer. Such a suggestion may be made by a delivery/referral system, by a delivery agent, by a merchant, and so on. Such a suggestion may be made through an interface (e.g., a webpage) that may be used to place an order. In some embodiments, such a suggestion may include a suggestion based on a location (e.g., a location of a merchant, a location of a destination, a location of a service providing agent, a route between one location and another location). For example, some embodiments may include making a suggestion of a merchant and/or good sold by a merchant that is near the merchant for which an order is placed, a merchant that is along a route between the merchant for which an order is placed and a customer, a merchant within a threshold distance from a route between a merchant and a destination, a merchant that is along a route and/or within a threshold distance from a route between a service providing agent and a merchant (e.g., a picker, a deliver agent, a recipient agent, and so on), and so on. In some embodiments, such a suggestion may be based on ordered items

> and/or user profiles (e.g., a knowledge that a last time an order was placed a second order was also placed, a knowledge that a prior order may have been used such as an order of tissue paper, a knowledge that a favored merchant is near a route, and so on).
> *Lutnick*, 38:22-46.

The cited portions of *Lutnick* merely describe orders that are placed, but do not include or correspond to a tab (money owed). *Lutnick*, taken singularly or in combination with *Burns*, does not teach or suggest an electronic device with at least one processor that "receives, from a second restaurant device at the second restaurant, a second tab for at least one second order without receiving the payment information," as recited in Claim 1.

Kamdar is cited for its alleged teaching regarding collecting information about supplies needed by the restaurants. *Office Action*, pp. 17-18. *Bossert* is cited for its alleged teaching regarding receiving a reservation request for a specified one of the restaurants. *Office Action*, p. 18. *Stone* is cited for its alleged teaching regarding identifying one or more other of the restaurants that are able to satisfy the reservation request. *Office Action*, p. 18-19. *Ruul* is cited for its alleged disclosure regarding collecting information about exchanges of supplies between restaurants. *Office Action*, p. 19. The Applicant respectfully asserts that these additions do not cure the above-noted deficiencies.

For at least these reasons, Claim 1 and its dependent claims are allowable. For one or more of these reasons, Claim 11 and their respective dependent claims are allowable. Accordingly, the Applicant respectfully requests that the § 103 rejection be withdrawn.

CONCLUSION

The Applicant respectfully asserts that all pending claims in this application are in condition for allowance and respectfully requests full allowance of the claims.

If any issues arise or if the Examiner has any suggestions for expediting allowance of this application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@munckwilson.com.*

The Commissioner is hereby authorized to charge any additional fees connected with this communication (including any extension of time fee) or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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IN THE CLAIMS

Please amend the claims as follows. Any other difference between the claims below and the previous state of the claims is unintentional and in the nature of a typographical error.

1. (Currently Amended) An apparatus comprising:

at least one memory configured to store information identifying performances of multiple restaurants and store order information including tabs of a customer at the multiple restaurants and payment information related to the customer; and

at least one processor configured to:

detect a mobile device associated with the customer wirelessly connecting to a wireless network of a first restaurant of the multiple restaurants;

identify the payment information related to the detected mobile device;

receive, from a first restaurant device at [[a]] the first restaurant, ~~of the multiple restaurants, payment information~~ a first tab for at least one first order associated with [[a]] the mobile device;

update the order information for the customer with the first tab based on the detected mobile device associated with the at least one first order;

track a movement of the mobile device from the first restaurant to a second restaurant of the multiple restaurants based on the mobile device transferring from the wireless network of the first restaurant to a wireless network of the second restaurant;

receive, from a second restaurant device at the second restaurant, a second tab for at least one second order without receiving the payment information;

~~associate the at least one second order with the at least one first order based on the movement of the mobile device;~~

update the order information for the customer with the second tab based on the mobile device with the at least one second order;

receive finalized payment based on the order information using ~~from the second restaurant device at the second restaurant, the finalized payment associated with~~ the payment information, wherein the payment information is only applied to the finalized payment;

identify a division of the finalized payment for the ~~at least one~~ first ~~order~~ tab and the ~~at least one~~ second ~~order~~ tab, from different restaurants, associated with the mobile device; ~~,~~ ~~where the payment information is only submitted to the first restaurant device and the finalized payment with the second restaurant device;~~ and

trigger payments to the first restaurant device and the second restaurant device based on the identified division of the finalized payment.

2. (Original) The apparatus of Claim 1, wherein the information identifying the performances of the restaurants comprises at least one of: gross sales of the restaurants, numbers of customers served by the restaurants, and profits of the restaurants.

3. (Original) The apparatus of Claim 1, wherein the at least one processor is further configured to identify a trend in each restaurant's performance.

4. (Original) The apparatus of Claim 1, wherein the at least one processor is configured to correlate the performances of the restaurants by correlating peak customer visits to the restaurants over time.

5. (Original) The apparatus of Claim 4, wherein the at least one processor is configured to correlate the peak customer visits to identify whether a specified one of the restaurants is visited more frequently when others of the restaurants are busier.

6. (Original) The apparatus of Claim 1, wherein the at least one processor is further configured to:

collect information about supplies needed by the restaurants; and

combine the information about the supplies in order to consolidate supply orders for the multiple restaurants.

7. (Original) The apparatus of Claim 1, wherein the at least one processor is further configured to:

collect information about services common to two or more of the restaurants; and

divide payments for the services among the two or more restaurants.

8. (Original) The apparatus of Claim 1, wherein the at least one processor is further configured to:

receive a reservation request for a specified one of the restaurants;

determine that the reservation request cannot be satisfied for the specified restaurant;

identify one or more others of the restaurants that are able to satisfy the reservation request; and

provide a list identifying the one or more other restaurants that are able to satisfy the reservation request to a user.

9. (Canceled).

10. (Original) The apparatus of Claim 1, wherein the at least one processor is further configured to:

collect information about exchanges of supplies between the restaurants; and

identify any of the restaurants needed to reconcile with others of the restaurants as a result of the exchanges.

11. (Currently Amended) A non-transitory computer readable medium embodying a computer program, the computer program comprising computer readable program code that when executed causes at least one processor to:

obtain information identifying performances of multiple restaurants;

detect a mobile device associated with a customer wirelessly connecting to a wireless network of a first restaurant of the multiple restaurants;

identify payment information related to the detected mobile device;

receive, from a first restaurant device at [[a]] the first restaurant, ~~of the multiple restaurants, payment information~~ a first tab for at least one first order associated with [[a]] the mobile device;

update order information for the customer with the first tab based on the identified mobile device associated with the at least one first order, wherein the order information includes tabs of a customer at the multiple restaurants;

track a movement of the mobile device from the first restaurant to a second restaurant of the multiple restaurants based on the mobile device transferring from the wireless network of the first restaurant to a wireless network of the second restaurant;

receive, from a second restaurant device at the second restaurant, a second tab for at least one second order without receiving the payment information;

~~associate the at least one second order with the at least one first order based on the movement of the mobile device;~~

updating the order information for the customer with the second tab based on the identified mobile device with the at least one second order;

receive finalized payment based on the order information using ~~from the second restaurant device at the second restaurant, the finalized payment associated with~~ the payment information, wherein the payment information is only applied to the finalized payment;

identify a division of the finalized payment for the ~~at least one~~ first ~~order~~ tab and the ~~at least one~~ second ~~order~~ tab, from different restaurants, associated with the mobile device; ~~, where the payment information is only submitted to the first restaurant device and the finalized payment; with the second restaurant device;~~ and

trigger payments to the first restaurant device and the second restaurant device based on the identified division of the finalized payment.

12. (Original) The non-transitory computer readable medium of Claim 11, wherein the information identifying the performances of the restaurants comprises at least one of: gross sales of the restaurants, numbers of customers served by the restaurants, and profits of the restaurants.

13. (Previously Presented) The non-transitory computer readable medium of Claim 11, wherein the computer program further comprises computer readable program code that when executed causes the at least one processor to identify a trend in each restaurant's performance.

14. (Previously Presented) The non-transitory computer readable medium of Claim 11, wherein the computer program comprises computer readable program code that when

executed causes the at least one processor to correlate peak customer visits to the restaurants over time.

15. (Previously Presented) The non-transitory computer readable medium of Claim 14, wherein the computer program comprises computer readable program code that when executed causes the at least one processor to correlate the peak customer visits to identify whether a specified one of the restaurants is visited more frequently when others of the restaurants are busier.

16. (Previously Presented) The non-transitory computer readable medium of Claim 11, wherein the computer program further comprises computer readable program code that when executed causes the at least one processor to:

collect information about supplies needed by the restaurants; and

combine the information about the supplies in order to consolidate supply orders for the multiple restaurants.

17. (Previously Presented) The non-transitory computer readable medium of Claim 11, wherein the computer program further comprises computer readable program code that when executed causes the at least one processor to:

collect information about services common to two or more of the restaurants; and

divide payments for the services among the two or more restaurants.

18. (Previously Presented) The non-transitory computer readable medium of Claim 11, wherein the computer program further comprises computer readable program code that when executed causes the at least one processor to:

receive a reservation request for a specified one of the restaurants;

determine that the reservation request cannot be satisfied for the specified restaurant;

identify one or more others of the restaurants that are able to satisfy the reservation request; and

provide a list identifying the one or more other restaurants that are able to satisfy the reservation request to a user.

19. (Canceled).

20. (Previously Presented) The non-transitory computer readable medium of Claim 11, wherein the computer program further comprises computer readable program code that when executed causes the at least one processor to:

collect information about exchanges of supplies between the restaurants; and

identify any of the restaurants needed to reconcile with others of the restaurants as a result of the exchanges.

21.-22. (Canceled)