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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARK CARLSON, PATRICK STAN, and
PATRICK FAITH

Appeal 2018-006398
Application 11/962,836
Technology Center 3600

Before NINA L. MEDLOCK, CYNTHIA L. MURPHY, and
AMEE A. SHAH, *Administrative Patent Judges*.

SHAH, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), the Appellant¹ appeals from the Examiner's decision to reject claims 1, 4, 7, 13, 14, 30–33, 37–39, 45–48, and 50–55, which are all of the pending claims. We have jurisdiction under 35 U.S.C. § 6(b).

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. The Appellant identifies the real party in interest as Visa U.S.A. Inc. Appeal Br. 2.

We AFFIRM.

CLAIMED SUBJECT MATTER

The Appellant’s invention is generally “directed to improved consumer notification systems and methods” (Spec. ¶ 5), and more particularly to “[c]ustomized payment transaction notification systems and methods . . . [that] can be used in the context of payment transactions using payment processing systems, which are configured to process credit and debit card transactions” (*id.* ¶ 18).

Claims 1 and 13 are the independent claims. Claim 1 is illustrative of the subject matter on appeal and is reproduced below (with added bracketing for reference):

1. A method comprising:

[(a)] receiving from a consumer, by a computer system in a payment processing network via a user interface in a client computer, a plurality of different user specified, customized notification event triggers comprising threshold amounts, the customized notification event triggers for determining when alerts for transactions conducted on a plurality of accounts associated with the consumer are sent, a plurality of different user specified time periods for receiving transaction alerts respectively associated with the different customized notification event triggers, and a plurality of different user specified communication modes respectively associated with the different user specified customized notification event triggers, wherein the different time periods and the different user specified communication modes are applied across the plurality of accounts;

[(b)] receiving, at the computer system in the payment processing network, an authorization request message comprising a transaction amount sent by an access device at a merchant, the authorization request message requesting authorization of a transaction utilizing a portable consumer

device associated with one of the plurality of accounts associated with the consumer, wherein the payment processing network is configured to process credit and debit card transactions;

[(c)] analyzing, by the computer system, the authorization request message to determine if the transaction is above a risk threshold, wherein the computer system is programmed to send alert messages if transactions are above the risk threshold but does not send alert messages if the transactions are below the risk threshold;

[(d)] determining, by the computer system, that the transaction is above the risk threshold;

[(e)] in response to determining that the transaction is above the risk threshold, evaluating, by the computer system in the payment processing network, the authorization request message and determining that the transaction that is occurring meets a customized notification event trigger in the plurality of different user specified customized notification event triggers, wherein the customized notification event trigger includes a threshold transaction amount;

[(f)] transmitting, by the computer system in the payment processing network, an alert to a notification device operated by the consumer according to the time and communication mode associated with the user specified customized notification event trigger;

[(g)] determining, by the computer system in the payment processing network, that the consumer did not receive the alert;

[(h)] determining, by the computer system in the payment processing network, that the alert should be escalated;

[(i)] sending, by the computer system in the payment processing network, an escalated alert to the consumer;

[(j)] receiving, by the computer system in the payment processing network and from the consumer, a response to the escalated alert indicating that the transaction should not be authorized; and

[(k)] determining, by the computer system in the payment processing network, that the transaction should not be authorized

based on the response to the escalated alert that indicates that the transaction should not be authorized.

Appeal Br. 34–35 (Claims App.).

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Briancon et al. (“Briancon”)	US 5,883,580	Mar. 16, 1999
Ahuja et al. (“Ahuja”)	US 2002/0013711 A1	Jan. 31, 2002
Chesnais et al. (“Chesnais”)	US 2002/0087704 A1	July 4, 2002
Shteyn	US 2002/0133462 A1	Sept. 19, 2002
Fei et al. (“Fei”)	US 2003/0040959 A1	Feb. 27, 2003
Antonucci	US 2003/0212595 A1	Nov. 13, 2003
Malik et al. (“Malik”)	US 2005/0097473 A1	May 5, 2005
Lipton et al. (“Lipton”)	US 2005/0094788 A1	May 5, 2005
MCruz, “ http://www.numbrx.net/2006/05/26/mt-bank-data-breach-notification-letter/ ” (May 26, 2006) (“MCruz”)		

REJECTIONS²

Claims 1, 4, 7, 13, 14, 30–33, 37–39, 45–48, and 50–55 stand rejected under 35 U.S.C. § 101 as being directed to a judicial exception without significantly more.

Claims 1, 4, 7, 13, 14, 33, 37–39, 45, 48, and 50–55 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being obvious over Ahuja, Chesnais, Shteyn, and Malik.

Claim 30 stands rejected under pre-AIA 35 U.S.C. § 103(a) as being obvious over Ahuja, Chesnais, Shteyn, Malik, and Lipton.

² The Examiner withdraws the rejections of claims 1–16 under pre-AIA 35 U.S.C. § 112, first and second paragraphs. Ans. 2.

Claim 31 stands rejected under pre-AIA 35 U.S.C. § 103(a) as being obvious over Ahuja, Chesnais, Shteyn, Malik, and MCruz.

Claim 32 stands rejected under pre-AIA 35 U.S.C. § 103(a) as being obvious over Ahuja, Chesnais, Shteyn, Malik, and Briancon.

Claim 46 stands rejected under pre-AIA 35 U.S.C. § 103(a) as being obvious over Ahuja, Chesnais, Shteyn, Malik, and Fei.

Claim 47 stands rejected under pre-AIA 35 U.S.C. § 103(a) as being obvious over Ahuja, Chesnais, Shteyn, Malik, and Antonucci.

OPINION

Patentable Subject Matter

35 U.S.C. § 101 Framework

An invention is patent eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is “directed to.” *See Alice*, 573 U.S. at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010)

(“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (185))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that “[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 176; *see also id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* (citing *Benson* and *Flook*); *see, e.g., id.* at 187 (“It is now commonplace that an *application* of a law of nature or mathematical formula

to a known structure or process may well be deserving of patent protection.”).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (citation omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (alterations in original) (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

After the Appellant’s briefs were filed and the Examiner’s Answer mailed, the U.S. Patent and Trademark Office (“USPTO”) published revised guidance on the application of § 101. 2019 REVISED PATENT SUBJECT MATTER ELIGIBILITY GUIDANCE, 84 Fed. Reg. 50 (Jan. 7, 2019) (“2019 Revised Guidance”). That guidance revised the USPTO’s examination procedure with respect to the first step of the *Mayo/Alice* framework by (1) providing groupings of subject matter that are 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. *Id.* at 50. The 2019 Revised Guidance, by its terms, applies to all applications, and to all patents resulting from applications, filed before, on,

or after January 7, 2019. *Id.*³ Under the 2019 Revised Guidance, we first look to whether the claim recites:

- (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and
- (2) additional elements that integrate the judicial exception into a practical application (*see* MANUAL OF PATENT EXAMINING PROCEDURE (MPEP) §§ 2106.05(a)–(c), (e)–(h) (9th Ed., Rev. 08.2017, Jan. 2018)).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look to whether the claim:

- (3) adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or
- (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

See 2019 Revised Guidance, 84 Fed Reg. at 54, 56.

Step One of the Mayo/Alice Framework

Reciting a Judicial Exception

Under the first step of the *Mayo/Alice* framework and Step 1 of Office Guidelines (*see* 2019 Revised Guidance, 84 Fed. Reg. at 53–54), the Examiner first determines “claims 1, 4, 7, 30–33, 37–39, 45–48 and 50–54

³ The 2019 Revised Guidance supersedes MANUAL OF PATENT EXAMINING PROCEDURE (“MPEP”) § 2106.04(II) and also supersedes all versions of the USPTO’s “Eligibility Quick Reference Sheet Identifying Abstract Ideas.” *See* 2019 Revised Guidance, 84 Fed. Reg. at 51 (“Eligibility-related guidance issued prior to the Ninth Edition, R-08.2017, of the MPEP (published Jan. 2018) should not be relied upon.”).

are directed to a process and claims 13, 14 and 55 are directed toward a system or device,” i.e., a process and a machine, two of the categories of statutory subject matter. Final Act. 3.

Under the first step of the *Mayo/Alice* framework and Step 2A, Prong 1 of the 2019 Revised Guidance, 84 Fed. Reg. at 54, the Examiner determines

the claims are directed towards alerting customers, based on triggers or events, which is considered to be an abstract idea inasmuch as receiving requests, evaluating those requests, determining to send an alert and sending the alert, are activities that are considered both fundamental economic or business practices, an idea of itself, and a mathematical relationship or formula (by providing an algorithm (formula) in the form of a flowchart that dictates the step by step process steps to perform the claimed invention). Specifically it is the business practice of monitoring your customer’s transactions for specific events and notifying the customer when those events occur, such as possible fraudulent activity or misuse of a payment device such as a credit card. Further as claimed the invention is directed toward collecting information, comparing the information to previously received information, using rules and determining options such as when to send alerts based on these rules.

Id. When viewed through the lens of the 2019 Revised Guidance, the Examiner’s analysis depicts the claimed subject matter as a “[c]ertain method[] of organizing human activity—fundamental economic principles or practices (including hedging, insurance, mitigating risk)” and a “[m]ental process[]—concepts performed in the human mind (including an observation, evaluation, judgment, opinion).” 2019 Revised Guidance, 84 Fed. Reg. at 52 (footnotes omitted).

The Appellant contends that “the alleged abstract idea is untethered from the language of the claims” and “the Examiner fails to take into

account the specific combination of limitations in the claims.” Appeal Br. 12. The Appellant does not state to what they consider the claims to be directed.

Before determining whether the claims at issue are directed to an abstract idea, we first determine to what the claims are directed. The Federal Circuit has explained that “the ‘directed to’ inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)). It asks whether the focus of the claims is on a specific improvement in relevant technology or on a process that itself qualifies as an “abstract idea” for which computers are invoked merely as a tool. *See id.* at 1335–36. Here, it is clear from the Specification, including the claim language, that claims 1 and 13 focus on an abstract idea, and not on any improvement to technology and/or a technical field.

The Specification provides for “CUSTOMIZED PAYMENT TRANSACTION NOTIFICATION.” Spec., Title. In the “Background” section, the Specification provides consumers may want to be notified when their credit cards are used, but they may not be at home, answer the phone number on record, want to receive a call at certain hours, or want to wait a few days for a letter to receive such notifications. *See* Spec. ¶ 3. “Thus, conventional notification methods may not be very effective for notifying the consumer of potentially fraudulent or unauthorized credit card activity.” *Id.* The invention aims to address these problems by providing

“[c]ustomized payment transaction notification systems and methods.” *Id.*
¶ 18.

Consistent with the disclosure, independent claim 1 is illustrative and recites “[a] method comprising:” the steps of: (a) “receiving . . . customized notification event triggers comprising threshold amounts”; (b) “receiving . . . an authorization request message comprising a transaction amount” from a merchant’s access device (c) “analyzing . . . the authorization request message to determine if the transaction is above a risk threshold”; (d) “determining . . . the transaction risk is above the risk threshold”; (e) “evaluating . . . the authorization request message and determining that the transaction that is occurring meets a customized notification event trigger” from the received triggers and including a threshold amount; (f) “transmitting . . . an alert to a notification device” according to time and mode associated with the received triggers; (g) “determining . . . that the consumer did not receive the alert”; (h) “determining . . . that the alert should be escalated”; (i) “sending . . . an escalated alert to the consumer”; (j) “receiving . . . a response . . . indicating that the transaction should not be authorized”; and (k) “determining . . . that the transaction should not be authorized based on the response.” Appeal Br. 34–35. Independent claim 13 recites a server computer comprising a processor and medium to implement the method with steps as recited in claim 1. *See id.* at 36–37.

When considered collectively and under the broadest reasonable interpretation of the claims’ limitations, we agree with the Examiner that the claims recite a method for alerting customers of a potentially fraudulent transaction in accordance with customized triggers of when, how, and where

to be notified.⁴ Limitations (a), (b), and (j) are steps of receiving data, which is an extra-solution activity. *See In re Bilski*, 545 F.3d 943, 963 (Fed. Cir. 2008) (en banc), *aff'd sub nom Bilski v. Kappos*, 561 U.S. 593 (2010) (characterizing data gathering steps as insignificant extra-solution activity).

The limitations of analyzing, determining, and evaluating (limitations (c), (d), (e), (g), (h), and (k)) are functionally recited without any detail regarding how the results are accomplished, i.e., in what way(s) technologically or by what algorithm. In light of the Specification, these limitations comprise performing comparisons to see if data match and checking/comparing data, i.e., some form of analysis of data. *See Spec.* ¶¶ 55, 68, 70. Analyzing/comparing data is a mental process. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) (citing cases) (“we have treated analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes”).

The limitations of transmitting and sending alerts based on the received and analyzed data (limitations (f) and (i)) are steps of providing results of the analysis, a post-solution activity and ordinarily done in alerting customers of potential fraud. *See Flook*, 437 U.S. at 590; *FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089, 1093 (Fed. Cir. 2016) (quoting *Elec. Power*, 830 F.3d at 1353).

⁴ We note that “[a]n abstract idea can generally be described at different levels of abstraction.” *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016). The Board’s “slight revision of its abstract idea analysis does not impact the patentability analysis.” *Id.* at 1241.

Alerting customers of a potentially fraudulent transaction in accordance with customized triggers of when, how, and where to be notified is similar to the concepts of collecting and analyzing information for the purpose of preventing improper access in *FairWarning*, 839 F.3d at 1093–94, of verifying the validity of a credit card transaction over the Internet in *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1370 (Fed. Cir. 2011), and of identifying unwanted files in a computer network in *Intellectual Ventures I LLC v. Erie Indem. Co.*, 711 F. App'x 1012, 1015 (Fed. Cir. 2017). Accordingly, we conclude the claims recite a way of alerting customers of potential fraudulent transactions based on customer-provided preferences, which is a commercial interaction, one of the certain methods of organizing human activity as identified in the 2019 Revised Guidance, 84 Fed. Reg. at 52, and thus, an abstract idea. As such, we disagree with the Appellant's contentions that "the alleged abstract idea is untethered from the language of the claims" and that "the Examiner fails to take into account the specific combination of limitations in the claims." Appeal Br. 12; *see also id.* at 13.

Integration into a Practical Application

Under Step 2A, Prong 2 of the 2019 Revised Guidance, 84 Fed. Reg. at 54, we look to whether the claims "apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claims are more than a drafting effort designed to monopolize the judicial exception," i.e., "integrate a judicial exception into a practical application." Here, the only additional elements recited in the independent claims beyond the abstract idea are "a computer system in a payment processing network"; "a user interface"; "a client computer"; "an

access device”; “a notification device”; and “[a] server computer comprising: a processor; and [a] computer readable medium coupled with the processor, the computer readable medium storing instructions for implementing a method” — elements that, as the Examiner observes (Final Act. 4–5), are described in the Specification as generic computer components (*see, e.g.*, Spec. ¶¶ 21–42, 78–80, Figs. 1, 2)). For example, the computer system comprises a “server computer” that can be “a large mainframe, a minicomputer cluster, or a group of servers functioning as a unit. In one example, the server computer may be a database server coupled to a Web server.” *Id.* ¶ 33. The payment processing network “may include data processing subsystems, networks, and operations used to support and deliver authorization services, exception file services, and clearing and settlement services” (*id.* ¶ 32) and “may use any suitable wired or wireless network, including the Internet” (*id.* ¶ 33). The consumer device “may be in any suitable form,” such as “smart cards, ordinary credit or debit cards (with a magnetic strip and without a microprocessor), keychain devices . . . , etc.[.] . . . cellular or mobile phones, personal digital assistants (PDAs), pagers, payment cards, security cards, access cards, smart media, transponders, and the like” (*id.* ¶ 25), and the access device “can be in any suitable form,” such as “point of sale (POS) devices, cellular or mobile phones, PDAs, personal computers (PCs), tablet PCs, handheld specialized readers, set-top boxes, electronic cash registers (ECRs), automated teller machines (ATMs), virtual cash registers (VCRs), kiosks, security systems, access systems, and the like” (*id.* ¶ 35). We find no indication in the Specification, nor does the Appellant direct us to any indication, that the operations recited in claims 1 and 13 require any specialized computer hardware or other inventive

computer components, i.e., a particular machine, invoke any asserted inventive programming, or that the claimed invention is implemented using other than generic computer components to perform the generically claimed functions. *See DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) (“[A]fter *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible.”).

The Appellant contends that the claims

share substantial similarities to the claims of *DDR Holdings, LLC v. Hotels.com* In *DDR Holdings*, the involved claims were found to not be directed to an abstract idea because they were necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer technology. Similarly, here, the recited claim elements clearly improve the functioning of the computer and improve upon conventional notification systems.

Appeal Br. 14; *see also id.* at 17 (“the recited claim elements clearly improve the functioning of the computer. Appellant has already provided arguments as to why embodiments of invention provide for improved alert systems.”).⁵ When viewed through the lens of the 2019 Revised Guidance, the Appellant contends that under Prong Two, the elements of the claim integrate the abstract idea into a practical application because the combination of the elements “reflects an improvement in the functioning of a computer, or an

⁵ We acknowledge that some of these considerations may be properly evaluated under Step 2 of *Alice* (Step 2B of 2019 Revised Guidance). Solely for purposes of maintaining consistent treatment within the Office, we evaluate them under Step 1 of *Alice* (Step 2A of 2019 Revised Guidance). *See* 2019 Revised Guidance, 84 Fed. Reg. at 55.

improvement to other technology or technical field.” 84 Fed. Reg. at 55.
We disagree.

Specifically, the Appellant contends that the claims address the problem of “conventional notification methods [being] . . . not particularly effective for notifying the consumer of potentially fraudulent or unauthorized credit card activity.” Appeal Br. 15. However, the Appellant does not discuss why, technologically, they are not effective. And we note that the Specification discusses that previous methods may not be effective because “the consumer may not be at home or may not answer the phone and a letter may take a few days to arrive at the consumer’s home,” and may not want to receive a call at certain times. Spec. ¶ 3. There is no discussion of any issues specifically related to computer technology. Notifying a consumer of potential fraud or unauthorized transactions is not a problem specifically arising in the realm of computer networks, but one that existed prior to the Internet. *See FairWarning*, 839 F.3d at 1094–95 (claims asking whether accesses of data met certain criteria asked “same questions (though perhaps phrased with different words) that humans in analogous situations detecting fraud have asked for decades, if not centuries.”).

Further, the purported solution of “allowing an alert to be sent at a time specified by a user and a communication mode specified by a user, when a customized notification event trigger comprising a threshold transaction amount is met,” thereby “ensur[ing] that that the consumer will not only receive the alert messages, but will also only receive alert messages that are associated with objectively risky transactions in the manner specified by the user” (Appeal Br. 15) is not rooted in computer technology. This purported solution requires the use of a generic computer system, a

generic payment network, generic devices, a generic user interface, a generic computer, and a generic server operating in their ordinary and conventional capacities. *See supra*; *see also Alice*, 573 U.S. at 224–26. The Appellant does not, and cannot, claim to have invented the use of the system, network, devices, interface, computer, or server. The “focus” of the claim is not “on the specific asserted improvement in computer capabilities” (*Enfish*, 822 F.3d at 1336), but rather on using the computer components as tools to implement the abstract idea in the particular field of electronic transactions and notifications. *See FairWarning*, 839 F.3d at 1094–95, 1097 (“while the patent may in fact require that the claimed data relate to ‘transactions or activities that are executed in the computer environment,’ . . . limiting the claims to the computer field does not alone transform them into a patent-eligible application.”); *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1259 (Fed. Cir. 2016) (“The Supreme Court and [the Federal Circuit] have repeatedly made clear that merely limiting the field of use of the abstract idea to a particular existing technological environment does not render the claims any less abstract.”). Any improvement to the “conventional transaction fraud notification systems and methods” (Appeal Br. 15) lies in when and where the notification is sent, an improvement in the abstract idea itself, not to any technological improvement. *See BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1287–88 (Fed. Cir. 2018).

The Appellant further argues “[l]ike the claims at issue in *McRO*, the current claims are directed to ‘a combined order of specific rules that renders information into a specific format that is then used and applied to create desired results.’ In particular, embodiments of the [sic] improve upon conventional notification systems.” Appeal Br. 21 (citing *McRO, Inc. v.*

Bandai Namco Games Am. Inc., 837 F.3d 1299 (Fed. Cir. 2016). In *McRO*, the claims were directed to a specific improvement in computer animation and used rules to automate a subjective task of humans to create a sequence of synchronized, animated characters. See *McRO*, 837 F.3d at 1314–15. Unlike *Flook*, *Bilski*, and *Alice*, it was not the use of the computer but the incorporation of the rules that improved an existing technological process. *Id.* at 1314. Here, as discussed above, there is no such improvement to technology or a technological process. The Appellant also does not direct our attention to anything in the Specification to indicate that the invention provides a technical improvement in the steps of receiving data, analyzing data, making determinations of the data, evaluating data, transmitting data, and sending or not sending data, or that claims 1 and 13 incorporate rules to automate a subjective task of humans, as in *McRO*. See *FairWarning*, 839 F.3d at 1394–95.

Thus, we are not persuaded of error in the Examiner’s determination that claims 1 and 13 are directed to an abstract idea.

Step Two of the Mayo/Alice Framework

Under the second step in the *Alice* framework (corresponding to Step 2B of the 2019 Revised Guidance), we find supported the Examiner’s determination that the claims’ limitations, taken individually or as an ordered combination, do not amount to significantly more than the judicial exception and that “[t]he claims require no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry.” Final Act. 4–5; see also Ans. 18, 24.

The Appellant “submits that the claims recite a number of features that rise above that which is ‘well-understood, routine and conventional in the field,’” recites limitations (c) through (i) of analyzing, determining, evaluating, transmitting, and sending, and states that the combination of these limitations “is not ‘well-understood, routine and conventional in the field.’ And, the Examiner has provided no evidence to the contrary.” Appeal Br. 16–17; *see also* Reply Br. 3⁶. We are not persuaded of Examiner error by this argument.

The Examiner cites to the Specification as support for the claimed components being conventional (*see* Final Act. 4–5 (citing Spec. ¶¶ 25, 33)) and to case law as support for the claimed functions being well-understood, routine, and conventional (*see* Ans. 19 (citing *Elec. Power*, 830 F.3d at 1354). In doing so, the Examiner followed “Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP Inc.*[, 881 F.3d 1360 (Fed. Cir. 2018)],” USPTO Memorandum, Robert W. Bahr, Deputy Commissioner for Patent Examination Policy, April 19, 2018 (the “*Berkheimer* Memo”).

The court in *Berkheimer* held that “[t]he patent eligibility inquiry may contain underlying issues of fact.” *Berkheimer*, 881 F.3d at 1365 (quoting *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016) (“The § 101 inquiry ‘*may* contain underlying factual issues.”)). But, the court also held that “[w]hen there is *no genuine issue of material fact* regarding whether the claim element or claimed combination is

⁶ The Appellant clarifies that this argument is “not [an] assert[ion] that the claims should be patentable under § 101 because they are patentable under § 102 or §103.” Reply Br. 5.

well-understood, routine, [and] conventional to a skilled artisan in the relevant field, this issue can be decided on summary judgment as a matter of law.” *Id.* at 1368 (emphasis added). This qualification has been subsequently reiterated.

If there is a genuine dispute of material fact, Rule 56 requires that summary judgment be denied. In *Berkheimer*, there was such a genuine dispute for claims 4–7, but not for claims 1–3 and 9. . . . [I]n accordance with *Alice*, we have repeatedly recognized the absence of a genuine dispute as to eligibility for the many claims that have been defended as involving an inventive concept based merely on the idea of using existing computers or the Internet to carry out conventional processes, with no alteration of computer functionality.

Berkheimer v. HP Inc., 890 F.3d 1369, 1371–73 (Fed. Cir. 2018) (Order, On Petition for rehearing en banc, May 31, 2018) (Moore, J., concurring); *see also Aatrix Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1368 (Fed. Cir. 2018) (“A factual allegation or dispute should not automatically take the determination out of the court’s hands; rather, there needs to be justification for why additional evidence must be considered—the default being a legal determination.”). Here, the Specification indisputably shows the claimed computing system in a payment processing network, user interface, client computer, access device, notification device, and server computer were conventional at the time of filing. *See supra*; Spec. ¶¶ 21–42, 78–80, Figs. 1, 2. Accordingly, no genuine issue of material fact exists as to the well-understood, routine, or conventional nature of the systems, interface, devices and server computer as claimed.

We note that, as discussed above with respect to Step 1 of the *Alice/Mayo* framework, the claims simply recite the functional results to be achieved by a conventional computing system and server. The claims

“provide[] only a result-oriented solution[] with insufficient detail for how a computer accomplishes it. Our law demands more.” *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1342 (Fed. Cir. 2017) (“*Capital One*”). Taking the claimed elements separately, the functions performed by the computer are purely conventional. The claimed computing components comprise generic computing devices (*see supra*) and operate in their ordinary and conventional capacities to perform the well-understood, routine, and conventional functions of receiving, analyzing, determining, evaluating, transmitting, and sending data, . *See Elec. Power*, 830 F.3d at 1355 (gathering, sending, monitoring, analyzing, selecting, and presenting information does not transform the abstract process into a patent-eligible invention); *FairWarning*, 839 F.3d at 1095 (generating a rule related to accessing information, applying the rule, and storing and announcing the result did not transform the abstract idea into a patent-eligible invention); *Alice*, 573 U.S. at 226 (“Nearly every computer will include a ‘communications controller’ and ‘data storage unit’ capable of performing the basic calculation, storage, and transmission functions required by the method claims.”).

Considered as an ordered combination, the components of the Appellant’s claim add nothing that is not already present when the steps are considered separately. The sequence of receiving, analyzing (including determining and evaluating), transmitting, determining, sending, receiving, and determining data, is equally generic and conventional or otherwise held to be abstract. *See Elec. Power*, 830 F.3d at 1354–56 (holding that the sequence of receiving, detecting, analyzing, displaying, accumulating, updating, and deriving data was abstract); *Fair Warning*, 839 F.3d at 1095

(holding that sequence of receiving, generating, determining, and providing data was abstract); *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378 (Fed. Cir. 2017) (holding that sequence of data retrieval, analysis, modification, generation, display, and transmission was abstract).

The Appellant further argues that the claims are analogous to claim 2 of Example 21 published by USPTO in the July 2015 Update (hereinafter “2015 Update”). Appeal Br. 18–20. We disagree. Claim 1 of hypothetical Example 21 was considered ineligible, and claim 2, which addressed “the Internet-centric challenge of alerting a subscriber with time sensitive information when the subscriber’s computer is offline” by a transmission of an alert to an application that “cause[d] the alert to display and enable[d] the connection of the remote subscriber computer to the data source over the Internet when the remote subscriber computer comes online,” was considered eligible. *See* July 2015 Update, Appendix 1. Thus, claim 2 was similar to *DDR Holdings* in solving an Internet-centric problem with a solution necessarily rooted in computer technology. *Id.*; *see also* Appeal Br. 20. Here, independent claims 1 and 13 contain no comparable limitation and are similar to hypothetical claim 1. Further, as discussed above, the claims do not solve a problem specifically arising in the realm of computer networks with a solution necessarily rooted in computer technology.

Thus, we are not persuaded of error in the Examiner’s determination that the limitations of claims 1 and 13 do not transform the claims into significantly more than the abstract idea.

The Appellant also contends that the Examiner errs in not explaining each claim individually. Appeal Br. 21; Reply Br. 12. However, there is no

specific requirement that each claim be examined individually by the Examiner in determining that the claims are directed to an abstract idea. *See Alice*, 573 U.S. 208 at 217–21 (addressing the claims together). The Examiner includes the dependent claims with the analysis of the independent claims. *See* Final Act. 2, 3, 5. There is no indication that the Appellant was not put on notice of the Examiner’s rejection regarding claims 4, 7, 14, 30–33, 37–39, 45–48, and 50–55. Moreover, the Appellant does not provide any individual argument against any of these dependent claims 4, 7, 14, 20, 32, 22, 37, 45–47, 51, and 53–55. *See* Appeal Br. 21–22.

The Appellant contends that “[d]ependent claims 31, 38, 39, 48, 50, and 52 are patent eligible, since they depend from a patent eligible independent claim.” Appeal Br. 22. But, we are not persuaded of error in the Examiner’s rejection of the independent claims as patent ineligible. The Appellant also argues that the dependent claims “provide further technical advantages.” *Id.* However, the additional advantages of “the consumer know[ing] that the alert is specifically directed towards activity that pertains to them, and is not simply any random message that is being sent” (*id.*); “the server computer . . . knowing whether to even send an additional alert, to resend another alert through another communication channel or to another device” so as to be more productive (*id.* at 23), “the issuer of the account . . . [being able to] provide specific rules to a server computer to determine whether or not to provide an alert” (*id.*), “providing more refined rules regarding whether or not to provide an alert” (*id.*), and “ensuring that the consumer is more likely to receive the alert by attempting to communicate with the consumer through a different communication mode” (*id.* at 24) are not technical advantages, but advantages to consumer convenience. As

discussed above with reference to *DDR Holdings*, the purported solution is not necessarily rooted in computer technology and does not overcome a problem specifically arising in the realm of computer technology.

For at least the reasons above, we sustain the Examiner's rejection under 35 U.S.C. § 101 of claims 1, 4, 7, 13, 14, 30–33, 37–39, 45–48, and 50–55.

Obviousness

The Appellant contends, in relevant part, that the Examiner's rejection of independent claims 1 and 13 is in error because the prior art references fail to teach analyzing the authorization request message to determine if the transaction is above a risk threshold, not sending if the transaction is below the risk threshold, and if the transaction is above the risk threshold, evaluating the request message and determining that it meets a threshold transaction amount customized event trigger, as recited in limitations (c), (d), and (e) of limitation 1 and similarly recited in claim 13. *See* Appeal Br. 27. We agree.

The Examiner finds that Ahuja teaches receiving from a computer customized event triggers comprising a time period for receiving alerts, communication modes, and specific trigger thresholds for account notifications; receiving a payment authorization request message; analyzing the request message to determine if the transaction is above a risk threshold; determining that the transaction is above the risk threshold; and in response to that determination and a determination that the transaction meets an event trigger, transmitting an alert to a consumer device according to the time, communication mode, and triggers, as recited in limitations (a) through (f) of claim 1, and similarly recited in claim 13. *See* Final Act. 6–10 (citing Ahuja

¶¶ 32–34, 36, 37, 39–41, 53, 62, 66). The Examiner relies on Chesnais to correct Ahuja’s deficiency of “the communication modes are for different times during the day,” as recited in limitation (a), and to teach “detecting failure of delivery, and determining an alternate communication channel to deliver the message.” *Id.* at 10–12. The Examiner relies on Shteyn to correct the deficiency in the combination of Ahuja and Chesnais of “the authorization request message requesting authorization of a transaction utilizing a portable consumer device associated with one of the plurality of accounts associated with the consumer,” as recited limitation (b) (*see id.* at 12–13), and for teaching receiving a response to the alert and determining the transaction should not be authorized, as recited in limitations (j) and (k) (*see id.* at 13–15). The Examiner finds that the combination does not explicitly teach limitations (g), (h), and (i) of determining that the consumer did not receive the alert indicating that the transaction is occurring and that the alert should be escalated, and sending an escalated alert to the consumer, for which the Examiner relies on Malik. *See id.* at 15–17.

Thus, the Examiner appears to rely solely on Ahuja for teaching the limitations regarding analyzing the message, determining whether the transaction is above the threshold, and sending an alert only if it is. In particular, the Examiner finds that Ahuja “discloses that the user can specify specific trigger thresholds for each of their account notifications including how often they can or should be alerted for a particular event based on the trigger thresholds” and that “the threshold value is identified and compared to the current value thus if it is greater than the threshold value the user is notified.” *Id.* at 8–9 (citing Ahuja ¶¶ 62, 66, Table 2). The Examiner also finds that Ahuja teaches that the user can set the trigger threshold “to notify

if it is lower, thus the user can be alerted only if it is greater or only if it is less than or if it is the same, each of these is selectable by the user.” *Id.* at 9.

Ahuja provides for a “METHOD AND SYSTEM FOR NOTIFYING CUSTOMERS OF TRANSACTION OPPORTUNITIES.” Ahuja, Title. Alert message generators access databases comprising customer preferences, alert messages, rates and other information to generate, store, and send alert messages to the customer’s selected message gateway, e.g., email, text message, pager, etc. *See id.* ¶¶ 32, 36. The message generators analyze the customer’s preferences against current rates, product information, and host handoff data to create alert messages that are based on the customer’s specified preferences and rates and information content. *See id.* ¶¶ 34, 35. Member customer data are collected, the data including “content to be notified on **72**, preferred channel of contact **74**, and a preferred time for notification **76**.” *Id.* ¶ 41. The content to be notified on can include interest rates, past-due reminders, overdrafts, specific credit charges, and credit fraud warnings that can be based on the amount of charges. *Id.* The customer can select “a threshold flag data field for indicating whether a particular updated value is the same, greater, or lesser than a customer indicated threshold value (e.g., interest rates, stock quotes).” *Id.* ¶ 66. A comparison is made between the current rate and the customer indicated threshold value to determine whether an alert is sent. *See id.* Table 2.

However, we do not see where or how Ahuja teaches analyzing a message and determining if the transaction is above a risk threshold. Although Ahuja teaches a customer specifying a rate threshold value, using that threshold value to compare against another rate value, and sending the alert based on that comparison, the Examiner does not explain how Ahuja’s

teaching of notifying of possible credit card fraud meets the claimed analyzing the message and determining if the transaction is above a risk threshold. The Examiner further does not explain how Ahuja's comparison of current rate information to determine if a rate, such as an interest rate or stock quote, is above or below a specified threshold meets the claimed determination of a transaction being above or below a risk threshold.

To the extent the Examiner relies on the combination of Ahuja and Shteyn (*see* Final Act. 13–15), the Examiner does not adequately explain how the combination teaches determining if the transaction is above a risk threshold and taking further actions based on that determination. The Examiner finds that Shteyn and/or Ahuja teaches that it is “known in a credit card system . . . to determine fraud in a transaction” (*id.* at 13), but does not explain how that teaches determining if a transaction is above a user-specified threshold and sending appropriate notifications accordingly.

For at least the reasons above, we do not sustain the Examiner's rejection under 35 U.S.C. § 103(a) of independent claims 1 and 13. For the same reasons, we also do not sustain the rejection of dependent claims 4, 7, 14, 33, 37–39, 45, 48, and 50–55. *Cf. In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992) (“dependent claims are nonobvious if the independent claims from which they depend are nonobvious”).

For the rejections under 35 U.S.C. § 103(a) of claims 30–32, 46, and 47, the Examiner does not rely on the teachings of Lipton, MCruz, Briancon, Fei, or Antonucci in any manner that would remedy the deficiency in the Examiner's rejection of independent claim 1 as discussed above. Thus, for the same reasons we do not sustain the Examiner's rejection of claim 1, we

also do not sustain the Examiner’s rejections of claims 30–32, 46, and 47, which depend from claim 1.

CONCLUSION

The Examiner’s decision to reject claims 1, 4, 7, 13, 14, 30–33, 37–39, 45–48, and 50–55 under 35 U.S.C. § 101 is sustained.

The Examiner’s decision to reject claims 1, 4, 7, 13, 14, 30–33, 37–39, 45–48, and 50–55 under 35 U.S.C. § 103 is not sustained.

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 4, 7, 13, 14, 30–33, 37–39, 45–48, 50–55	101	Eligibility	1, 4, 7, 13, 14, 30–33, 37–39, 45–48, 50–55	
1, 4, 7, 13, 14, 33, 37–39, 45, 48, 50–55	103	Ahuja, Chesnais, Shteyn, Malik		1, 4, 7, 13, 14, 33, 37–39, 45, 48, 50–55
30	103	Ahuja, Chesnais, Shteyn, Malik, Lipton		30
31	103	Ahuja, Chesnais, Shteyn, Malik, MCruz		31
32	103	Ahuja, Chesnais, Shteyn, Malik, Briancon		32
46	103	Ahuja, Chesnais, Shteyn, Malik, Fei		46
47	103	Ahuja, Chesnais, Shteyn, Malik, Antonucci		47

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
Overall Outcome			1, 4, 7, 13, 14, 30–33, 37–39, 45–48, 50–55	

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED