UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte SCOTT ZOLDI and MICHAEL URBAN

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Appeal 2016-007317
Application 12/347,559
Technology Center 3600

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Before MICHAEL C. ASTORINO, TARA L. HUTCHINGS, and
AMEE A. SHAH, *Administrative Patent Judges*

SHAH, *Administrative Patent Judge*.

DECISION ON APPEAL[1]

The Appellants[2] appeal under 35 U.S.C. § 134(a) from the Examiner's
final decision rejecting claims 1–6 under 35 U.S.C. § 101 as being directed
to non-statutory subject matter. We have jurisdiction under 35 U.S.C.
§ 6(b).

We AFFIRM.

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[1] Throughout this Decision, we refer to the Appellants' Appeal Brief
("Appeal Br.," filed Oct. 20, 2015), Reply Brief ("Reply Br.," filed July 12,
2016), and Specification ("Spec.," filed Dec. 31, 2008), and to the
Examiner's Answer ("Ans.," mailed May 12, 2016) and Final Office Action
("Final Act.," mailed July 6, 2015).
[2] According to the Appellants, the real party in interest is "Fair Issac
Corporation of Roseville, Minnesota." Appeal Br. 2.

STATEMENT OF THE CASE

The Appellants' invention provides for "a system and method for point of compromise and mass compromise detection for financial transaction instruments, or 'cards,' associated with a common point of purchase such as a merchant or ATM" (Spec. ¶ 5) and, more particularly, for "a Compromise Analytics system: an analytic architecture to detect compromises, assess their extent, identify the associated compromised financial transaction instruments, . . . and provide a card compromise score to rank the relative risk of compromised cards" (*id.* ¶ 25).

Claim 1 (Appeal Br. 15–16 (Claims App.)) is the only independent claim on appeal, is representative of the subject matter on appeal, and is reproduced below:

> [1.] A computer-implemented method for detecting compromise of financial transaction accounts, the method comprising:
>
> receiving authorization data for each of a number of financial transaction accounts that are authorized for use for a financial transaction executed by a merchant device;
>
> for each of the number of financial transaction accounts, in a memory associated with a computer:
>
> > storing compromise cluster analytic variables representing a pre-fraud compromise of a group of the financial transaction accounts, the pre-fraud compromise comprising information related to at least a portion of the group of the financial transaction accounts being obtained by an unauthorized third party;
> >
> > generating an account profile that contains predictive fraud variables to be used in conjunction with the compromise cluster analytic variables to assign a compromise account score if any of the financial

transaction accounts are identified as being part of the pre-fraud compromise;

generating an account transaction profile that contains a purchase history of the account, the account transaction profile further containing one or more links between financial transaction accounts that are used at a particular merchant device each during a common time period;

generating a merchant device profile that contains predictive fraud variables relevant for compromise cluster generation; and

generating a merchant device account transaction history profile that contains financial transaction account volume and velocity statistics at numerous time intervals, and tracking data that tracks the number of accounts that experience fraud at a later date;

receiving, by the computer, reported fraud data that represents a confirmed fraudulent use of one or more of the number of financial transaction accounts; and

the computer generating a compromise profile for the one or more of the number of financial accounts based on a comparison of the reported fraud data with the account profile, account transaction profile, merchant device profile, and merchant device account history profile.

ANALYSIS

The Appellants argue claims 1–6 as a group. *See* Appeal Br. 9. We consider claim 1 representative of the group. Claims 2–6 stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Under 35 U.S.C. § 101, a patent may be obtained for "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." The Supreme Court has "'. . . long held that this provision contains an important implicit exception: Laws of nature,

natural phenomena, and abstract ideas are not patentable.'" *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

The Supreme Court in *Alice* reiterated the two-step framework, set forth previously in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 75–77 (2012), "for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Alice*, 134 S. Ct. at 2355. The first step in that analysis is to "determine whether the claims at issue are *directed to* one of those patent-ineligible concepts." *Id.* (emphasis added) (citing *Mayo*, 566 U.S. at 76–79). If so, the second step is to consider the elements of the claims "individually and 'as an ordered combination'" to determine whether the additional elements "'transform the nature of the claim' into a patent-eligible application." *Id.* (quoting *Mayo*, 566 U.S. at 79, 78).

In other words, the second step is to "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.* (alteration in original) (quoting *Mayo*, 566 U.S. at 72–73). The Court acknowledged in *Mayo*, that "all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Mayo*, 566 U.S. at 71. We, therefore, look to whether the claims focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea, and merely invoke generic processes and

machinery. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed.
Cir. 2016).

Before turning to the *Mayo/Alice* framework, we address the
Appellants' contention that the Examiner's rejection is in error because the
Examiner fails to set forth a prima facie case of subject matter ineligibility.
See Appeal Br. 11; Reply Br. 2. Specifically, the Appellants point to the
JULY 2015 UPDATE APPENDIX 1: EXAMPLES ("Update") to the 2014 INTERIM
GUIDANCE ON PATENT SUBJECT MATTER ELIGIBILITY, 79 Fed. Reg. 74618
(Dec. 16, 2014), issued after the mailing date of the Final Office Action (*id.*)
and to the May 4, 2016 Memorandum entitled "FORMULATING A SUBJECT
MATTER ELIGIBILITY REJECTION AND EVALUATING THE APPLICANT'S
RESPONSE TO A SUBJECT MATTER ELIGIBILITY REJECTION" ("May 2016
Memo"), issued after the mailing date of the Answer (Reply Br. 4). The
Appellants charge that the rejection should be withdrawn because "the
Office has not even alleged that the actual limitations of claim 1 contain an
abstract idea," but relies on the preamble (Appeal Br. 9), because the
rejection is of a "cursory nature" (*id.* at 10), and because the Examiner fails
"to explain why a claim or claims are unpatentable clearly and specifically"
(Reply Br. 2). We are not persuaded of Examiner error.

Here, in rejecting the claims under § 101, the Examiner analyzes the
claims using the *Mayo/Alice* two-step framework. Specifically, the
Examiner determines that the claims are directed to "the abstract idea of
detecting a compromise of financial transaction accounts." Ans. 3; *see also*
Final Act. 2 ("the abstract idea of detecting and forecasting compromise of
financial transaction accounts"). The Examiner cites judicial decisions and
compares the idea to those found to be abstract in those decisions. Ans. 4.

The Examiner further determines that the additional elements of the claims, taken alone and as an ordered combination, do not ensure that the claims amount to significantly more than the abstract idea. *Id.* at 3–5; *see also* Final Act. 2. The Examiner, thus, has clearly followed the guidelines.[3] Although we agree with the Appellants that additional explanation is always helpful, the Examiner has clearly articulated the reasons for the rejection and has notified the Appellants of the reasons for the rejection "together with such information and references as may be useful in judging of the propriety of continuing the prosecution of [the] application." 35 U.S.C. § 132. And, we find that, in doing so, the Examiner set forth a prima facie case of unpatentability. *See In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011); *Chester v. Miller*, 906 F.2d 1574, 1578 (Fed. Cir. 1990) (Section 132 "is violated when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection").

Turning to the first step of the *Mayo/Alice* framework, we agree with, and find supported, the Examiner's determination that claim 1 is directed to "the abstract idea of detecting a compromise of financial transaction accounts." Ans. 3; *see also* Final Act. 2.

The Appellants ostensibly do not agree with the Examiner's characterization of claim 1 (*see* Appeal Br. 9–10; Reply Br. 4–6), but do not state what they consider claim 1 to be directed to. Rather, the Appellants recite the limitations of claim 1 and state that "[t]he features of the claim

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[3] We further note that the MANUAL OF PATENT EXAMINING PROCEDURE and guidelines are not legal requirements. *Cf. In re Fisher*, 421 F.3d 1365, 1372 (Fed. Cir. 2005) ("The MPEP and Guidelines 'are not binding on this court'") (internal citations omitted).

could not be done by a human mind and are not merely an idea in and of itself" and that "none of these cited features of claim 1 (nor any others) have been identified as a judicial exception with an explanation as to why it is a judicial exception." Reply Br. 5–6.

Before determining whether the claims at issue are directed to an abstract idea, we must first determine what the claims are directed to.

> The "directed to" inquiry . . . cannot simply ask whether the claims involve a patent-ineligible concept, because essentially every routinely patent-eligible claim involving physical products and actions *involves* a law of nature and/or natural phenomenon—after all, they take place in the physical world. *See Mayo*, 132 S.Ct. at 1293 ("For all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.") Rather, 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." *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed.Cir.2015); *see Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1375 . . . (Fed. Cir. 2016) (inquiring into "the focus of the claimed advance over the prior art").

Enfish, 822 F.3d at 1335.

The step-one analysis requires us to consider the claims "in their entirety to ascertain whether their character as a whole is directed to excluded subject matter." *Internet Patents Corp.*, 790 F.3d at 1346. The question is whether the claims as a whole "focus on a specific means or method that improves the relevant technology" or are "directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery." *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016).

In that regard, the Background section of the Specification discusses

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the problem of compromised numerical and/or textual information, i.e., account and identity information, in financial transaction devices that can lead to fraud. *See* Spec. ¶¶ 2, 3. The invention provides a solution in the form of "a system and method for point of compromise and mass compromise detection for financial transaction instruments" (*id.* ¶ 5), specifically via a "Compromise Analytics system: an analytic architecture to detect compromises, assess their extent, identify the associated compromised financial transaction instruments" (*id.* ¶ 25). Claim 1 similarly provides for "[a] computer-implemented method for detecting compromise of financial transaction accounts" comprising the steps of receiving authorization data for a financial account, for each account, storing compromise data and generating account and merchant profile data, receiving fraud data, and generating comprise profile data based on a comparison on the fraud data and profile data. Appeal Br. 15 (Claims App.). The steps of the method are performed by generic devices/processors communicating over generic networks to a generic server computer and generic access devices. *See* Spec. ¶¶ 49–56.

In light of the Specification's description of the problem and solution, the advance over the prior art by the claimed invention is a way to detect compromises based on a comparison of specific types of data. This is the heart of the invention. *Cf. Intellectual Ventures I LLC v. Erie Indemnity Co.*, 850 F.3d 1315, 1328 (Fed. Cir. 2017) ("the heart of the claimed invention lies in creating and using an index to search for and retrieve data, . . . an abstract concept"). In that context, claim 1 is directed to receiving, storing, generating, and comparing data to detect compromised transactions, a fundamental economic practice, and a method of organizing human

activity.[4] The claims here are similar to ones our reviewing courts have deemed abstract in *Alice*, 134 S. Ct. at 2356 (using a third party to mitigate settlement risk), *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (guaranteeing transactions), *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372–73 (Fed. Cir. 2011) (verifying the validity of credit card transactions over the Internet), and *Smart Systems Innovations, LLC v. Chicago Transit Authority*, 873 F.3d 1364, 1371–72 (Fed. Cir. 2017) (forming and collecting data for financial transactions in a certain field). Even ignoring the financial nature of the subject matter at issue, here, the claim involves nothing more than receiving, storing, generating, and comparing data of a specific content and/or from a specific source, from one place to another, without any particular inventive technology — an abstract idea. *See Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016).

We find unpersuasive the Appellants' arguments that claim 1 is not directed to an abstract idea because it "describe[s] a technical solution to a technical problem, not the recitation of an abstract idea." Appeal Br. 10. As discussed above, the problem the invention addresses is the compromise of data that can lead to fraud. *See* Spec. ¶¶ 2, 3. We do not see, and the Appellants do not direct attention to, where or how the Specification discusses that the invention describes a solution that addresses a technical problem. Preventing the compromise of data to avoid fraud is not a

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[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.

technical problem but, as the Specification describes, a business concern related to cost and legal issues. *See* Spec. ¶¶ 2–4. Although the transactions are Internet-centric, there is not a problem rooted in technology arising out of computer networks, but rather business and/or convenience problems existing prior to the Internet and computers. *See DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256–57 (Fed. Cir. 2015) (contrasting the claims at issue to those in *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715–16 (Fed. Cir. 2014)).

Further, the solution here comprises the use of generic devices, processor, networks, and databases operating in their normal capacities to receive, store, generate, and compare data. The Specification provides that the "functional operations" of the invention can be implemented "in digital electronic circuitry, or in computer software, firmware, or hardware, including the structures disclosed in this specification and their structural equivalents, or in combinations of them" (Spec. ¶ 49), and/or "in a computing system" that includes clients and servers, a data server, an application server, a client computer, or any combination thereof that can be connected via a communication network (*id.* ¶¶ 56, 57). The Appellants do not direct our attention to, and we do not see, where the Specification provides that the components act in an non-routine manner. Rather, the claims "recite an invention that is . . . merely the routine or conventional use of the Internet." *DDR Holdings*, 773 F.3d at 1258–59.

Turning to the second step of the *Mayo/Alice* framework, we agree with, and find supported, the Examiner's determination that the elements of the claims, individually or as an ordered combination, do not amount to significantly more than that abstract idea. *See* Final Act. 2; Ans. 3–5. We

are not persuaded of Examiner error by the Appellants' arguments that assert the opposite. *See* Appeal Br. 10–13.

We find unpersuasive of Examiner error the Appellants' argument that claim 1 is significantly more than the abstract idea because it "recites an ordered combination of features" (*id.* at 11) and particularly, "a **specific order** of processes for detecting compromise of financial transaction accounts" (*id.* at 12). We note that the Specification considers other implementations, "[f]or example, the steps recited in the claims can be performed in a different order and still achieve desirable results." Spec. ¶ 59. In any event, "[n]one of these . . . [claimed eight] individual steps, viewed 'both individually and 'as an ordered combination,' transform the nature of the claim into patent-eligible subject matter." *Ultramercial*, 772 F.3d at 715 (internal citations omitted). Having routine steps of receiving, storing, generating, and comparing, and the use of a network Internet, "[do not] transform an otherwise . . . abstract idea into patent-eligible subject matter." *Id.* at 716.

We further are not persuaded of Examiner error by the Appellants' argument that, similar to Example 21, claim 2 of the Update, claim 1's features "describe a series of unconventional steps used to address the technological problem of determining clusters of compromised accounts . . . [that] allow . . . the generating of a compromise profile that quantifies the likelihood of other accounts on the merchant device being compromised." Appeal Br. 13. In that example, the limitations related to "transmitting an alert over a wireless communication channel to activate the stock viewer application, which causes the alert to display and enables the connection of the remote computer to the data source over the Internet when

the remote subscriber computer comes online" were considered to "add more than generally linking the use of the abstract idea (the general concept of organizing and comparing data) to the Internet, because they solve an Internet-centric problem with a claimed solution that is necessarily rooted in computer technology, similar to the additional elements in *DDR Holdings.*" Update, Appendix I, 4. In contrast, here, as discussed above, the limitations do not solve an Internet-centric problem with a solution necessarily rooted in computer technology, but instead address an existing business problem of preventing the compromise of data to avoid fraud.

Further, the steps of receiving, storing, generating, and comparing data are not steps unconventional to a computer. Rather, claim 1 merely employs a generic, conventional computer and network to perform generic, computer functions, i.e., receiving, storing, generating, and comparing data, without any particular inventive technology, to implement the abstract idea. *See Alice*, 134 S. Ct. at 2360; *see also Electric Power*, 830 F.3d at 1355. There is no further specification of particular technology for performing the steps. *See Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1263 (Fed. Cir. 2016); *see also Enfish*, 822 F.3d. at 1336 (focusing on whether the claim is "an improvement to [the] computer functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity").

The Appellants' argument that the claims recite an inventive concept because they "do not pre-empt the alleged abstract ideas" (Appeal Br. 13) is also unpersuasive of error. Although the Supreme Court has described "the concern that drives this exclusionary principle[, i.e., the exclusion of abstract ideas from patent eligible subject matter,] as one of pre-emption" (*see Alice*,

134 S. Ct. at 2354), characterizing pre-emption as a driving concern for patent eligibility is not the same as characterizing pre-emption as the sole test for patent eligibility. "The Supreme Court has made clear that the principle of preemption is the basis for the judicial exceptions to patentability" and "[f]or this reason, questions on preemption are inherent in and resolved by the § 101 analysis." *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (citing *Alice*, 134 S. Ct. at 2354). Although "preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility." *Id.* The aforementioned concept is not sufficiently limiting so as to fall clearly on the side of patent-eligibility.

Thus, we sustain the Examiner's rejection under 35 U.S.C. § 101 of claim 1 and of claims 2–6, which fall with claim 1.

DECISION

The Examiner's rejection of claims 1–6 under 35 U.S.C. § 101 is AFFIRMED.

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

AFFIRMED