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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* ABHISHEK GUPTA and ANMOL BHASIN

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Appeal 2017-000861  
Application 14/473,772  
Technology Center 3600

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Before ST. JOHN COURTENAY III, MONICA S. ULLAGADDI, and  
JOHN D. HAMANN, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1–3 and 6–18, which are all the claims pending in this application. Claims 4, 5, 19, and 20 are cancelled. *See* Amendment, filed July 17, 2015. We have jurisdiction over the pending claims under 35 U.S.C. § 6(b).

We affirm.

STATEMENT OF THE CASE

*Introduction*

Appellants’ invention “relates to the technical fields of computer software and, in one example embodiment, to discovery of contacts and accounts based on customer relationship management (CRM).” (Spec. ¶ 2).

*Representative Claim*

Claim 1 is representative of the invention and reads as follows:

1. A computer-implemented method comprising:

obtaining contact information pertaining to a contact related to a first user in a Customer Relationship Management (CRM) system, wherein the contact is not the first user;

performing a first pass of comparisons between a first field in each piece of contact information and a first field in information obtained from a social network service to determine a first similarity score between each pair of a piece of contact information and a piece of information obtained from the social network service;

after the performing the first pass of comparisons is complete for all pieces of contact information, determining a set of pairs by selecting only pairs that have a first similarity score meeting or exceeding a threshold;

performing a second pass of comparisons for each pair in the set of pairs by comparing a second field in a piece of contact information in the pair with a second field in the piece of information obtained from the social network service in the pair to determine a second similarity score for the pair;

storing a mapping for any pair in the set of pairs having a second similarity score exceeding a threshold, in a data store; and using mappings stored in the data store to provide insights to the first user.

*Rejection*

Claims 1–3 and 6–18 are rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. (Final Act. 6–8).

*Issue on Appeal*

Did the Examiner err in rejecting claims 1–3 and 6–18 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter?

## ANALYSIS

We have considered all of Appellants' arguments and any evidence presented. To the extent Appellants have not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv). We highlight and address specific findings and arguments for emphasis in our analysis below.

### *Mayo/Alice Analysis under 35 U.S.C. § 101*

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.*, 133 S. Ct. 2107, 2116 (2013)). The Supreme Court in *Alice* reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 82–84 (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, such as an *abstract idea*. Abstract ideas may include, but are not limited to, fundamental economic practices, methods of organizing human activities, an idea of itself, and mathematical formulas or relationships. *Id.* at 2355–57.

If the claims are *not directed* to a patent-ineligible concept, *the inquiry ends*. See *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1262 (Fed. Cir. 2017).

Otherwise, the inquiry proceeds to the **second step** in which the elements of the claims are considered “individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 79, 78). We consider the question of whether the claims are directed to a *specific improvement* in the capabilities of the computing devices, or, instead, “a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016).

We, therefore, decide under **step two** whether the claims: (a) set forth an *inventive concept* that provides a specific means or method that *improves* the relevant technology, **or** (b) are directed to a result or effect that itself is the abstract idea, in which the claims merely invoke generic processes and machinery. See *Enfish*, 822 F.3d at 1336.

#### *Mayo/Alice Analysis — Step 1*

Regarding *Alice* Step 1, we find Appellants do not substantively contest the Examiner’s legal conclusion that claims 1–3 and 6–18 are directed to an abstract idea:<sup>1</sup>

Claims 1–3, and 6–18 are directed to matching contact information to social network information, and the claimed

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<sup>1</sup> “Patent eligibility under § 101 presents an issue of law.” *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1340 (Fed. Cir. 2013).

limitations merely break the abstract idea into basic steps and add token extra-solution activity . . . Viewed as a whole, the claims simply recite the concept [of] matching contact information to social network information using steps of filtering.

(Final Act. 6).

Appellants’ arguments proceed directly to address the purported *inventive concept* of the claims (*Mayo/Alice* step two): “a key question on appeal is whether the first pass process constitutes ‘significantly more’ than ‘matching contact information to social network information.’” (App. Br. 8–9). We additionally note that in footnote 3, Appeal Brief 9, Appellants state they “believe that whether or not the first pass process fails Part I of the *Mayo* test is a relevant issue on Appeal.” However, Appellants indicate they “will only address whether or not the first pass process fails Part II of the *Mayo* test, as that is the basis of the Examiner’s rejection.” (*Id.*).

Regarding *Alice* step one, arguments not made are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv). Therefore, we proceed to *Alice* step two.

#### *Mayo/Alice Analysis — Step 2*

Regarding the **second step** of the *Mayo/Alice* analysis, the Examiner finds the dependent claims “do not further limit the claimed invention in such a way to direct the claimed invention to statutory subject matter, as they merely add extra-solution activity.” (Final Act. 6). The Examiner finds:

The claim elements of performing a first pass of comparisons, determining a set of pairs by selecting only pairs that have a first similarity score meeting or exceeding a threshold, and performing a second pass of comparisons for each pair in the set of pairs by comparing a second field in the pair with a second field in the information, along with the additional claim

elements of storing a mapping for any pair, and using mappings stored in the data store to provide insights to the user, are not sufficient to amount to significantly more than the judicial exception because the additional elements or combination of elements in the claims other than the abstract idea per se amount to no more than mere instructions to implement the idea on a computer, and a recitation of generic computer structure that serves to perform generic computer functions that are well-understood, routine, and conventional activities previously known to the industry, such as performing repetitive calculations, receiving, processing, and storing data, electronic recordkeeping, automating mental tasks, and receiving or transmitting data over a network, e.g., using the Internet to gather data.

(Final Act. 7).<sup>2</sup> (Emphasis omitted).

The Examiner further finds:

Viewed as a whole, these additional claim 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 (e.g. improvements to another technology or technical fields, improvements to the functioning of the computer itself, or meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment) than the abstract idea itself.

(*Id.*) (*emphasis omitted*).

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<sup>2</sup> The patent eligibility inquiry may contain underlying issues of fact. *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016). In particular, “[t]he question of whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact.” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018).

Thus, the Examiner concludes that claims 1–3 and 6–18 are not patent-eligible under 35 U.S.C. § 101.

*Mayo/Alice Analysis – Step 2 (continued)*

Because we conclude the claims are directed to an abstract idea (a fundamental economic practice — managing customer relationships), we turn to the second part of the *Alice/Mayo* analysis.<sup>3</sup> We analyze the claims to determine if there are additional limitations that individually, or as an ordered combination, ensure the claims amount to “significantly more” than the abstract idea. *Alice*, 134 S. Ct. at 2357.

Regarding *Alice* Step 2, Appellants urge the claimed invention:

operates on a technical level to **speed up** the matching of contacts in a CRM system and information in a social networking service. If a prior art matching algorithm were used, the process would merely comprise comparing each field of each account in the CRM system to each field of each piece of social networking information (e.g., every social networking profile).

(App. Br. 8–9 (emphasis added)).

Appellants’ arguments do not persuade us the Examiner erred, because Appellants do not substantively explain *how* the recited functionality of the claims in this application **improves** the functioning of the generically recited computer, processor, or memory (i.e., “Customer Relationship Management (CRM) system” — independent claims 1, 10, 16).

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<sup>3</sup> See, e.g., *OIP Techs. Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015) (observing that fundamental economic and conventional business practices are often found to be abstract ideas, even if performed on a computer).

To the extent that Appellants’ recited steps or acts (or functions) may be performed faster or more efficiently using a computer, our reviewing court provides applicable guidance:

While the claimed system and method certainly purport to accelerate the process of analyzing audit log data, **the speed increase comes from the capabilities of a general-purpose computer, rather than the patented method itself.** See *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can.* (U.S.), 687 F.3d 1266, 1278 (Fed. Cir. 2012) (“[T]he fact that the required calculations could be performed **more efficiently** via a computer does not materially alter the patent eligibility of the claimed subject matter.”).

*FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1095 (Fed. Cir. 2016) (emphases added).

Our reviewing court provides additional guidance regarding the use of *generic computers* and/or computer/network components. See *Elec. Power Grp. LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2012) (“We have repeatedly held that such invocations of computers and networks that are not even arguably inventive are ‘insufficient to pass the test of an inventive concept in the application’ of an abstract idea.”); *Intellectual Ventures I, LLC v. Erie Indem. Co.*, 850 F.3d 1332, 1341 (Fed. Cir. 2017) (“Rather, the claims recite both a generic computer element—a processor—and a series of generic computer ‘components’ that merely restate their individual functions. . . . That is to say, they merely describe the functions of the abstract idea itself, without particularity. This is simply not enough under step two.”).

Nevertheless, Appellants urge:

Specifically, the first pass process specifically addresses a problem of **execution speed** of a computer processor by

reducing the number of processing cycles required to perform a search through database records. This problem simply isn't one that exists outside of computer technology. For the above reasons, Applicant respectfully submits that the present case is analogous to **DDR Holdings**.

(App. Br. 16) (emphasis added).

We do not find Appellants' claims are similar to the claimed solution the court held to be patent-eligible in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014).

In *DDR*, the Federal Circuit applied the Supreme Court's *Alice* two-step framework, and upheld the validity of *DDR*'s patent on its web-page display technology. *DDR*, 773 F.3d at 1255. However, we find the problem addressed by Appellants' claims is not similar or otherwise analogous to the specific technical problem addressed by the subject claims in *DDR*. In *DDR*, the claims were directed to *retaining a website visitor when the visitor clicked on a third-party merchant's advertisement on the host website*. Instead of taking the visitor to the third-party merchant's website (and thus losing the visitor to the third-party merchant), *DDR*'s claimed system generated a **hybrid web page** that: (1) displayed product information from the third-party merchant, but also, (2) **retained the host website's "look and feel."**

Here, Appellants' claims 1–3 and 6–18 are **silent** regarding any mention of a website or webpage, much less a website that **retains the host website's "look and feel"** while displaying product information from the third-party merchant, as was the case in *DDR*, 773 F.3d at 1257 (emphasis added). More broadly, on this record, it is our view that Appellants have not established that the claims on appeal attempt to solve "a challenge particular to the Internet," as considered by the court in *DDR*. *Id.* at 1256–57. Thus,

we find Appellants' claimed invention does not provide a solution "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks." *Id.* at 1257.

Therefore, we conclude the claims here do not address a similar problem and do not contain a similar inventive concept as the patent-eligible claims in *DDR*. As emphasized by the Federal Circuit: "*DDR Holdings* does not apply when . . . the asserted claims do not 'attempt to solve a challenge particular to the Internet.'" *Smart Sys. Innovations, LLC v. Chi. Transit Auth.*, 873 F.3d 1364, 1375 (Fed. Cir. 2017) (quoting *In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016)).

We find no language in the claims on appeal that focuses on a specific means or method that *improves* the recited processor, computer, or memory. (Independent claims 1, 10, and 16). In particular, we find the claims on appeal are *silent* regarding specific limitations directed to an *improved* computer system, processor, memory, network, database, or Internet. Thus, we conclude Appellants' claimed solution is not rooted in computer technology, such that the invention on appeal overcomes a problem specifically arising in the realm of computers, including computer networks, as was the case with the type of claim the court concluded was patent-eligible in *DDR Holdings*. (*Id.* at 1257).

Moreover, we conclude Appellants' claims could be performed as **mental steps**, with the aid of pen and paper, albeit more slowly than with a computer. See *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011) ("That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*.").

Because none of Appellants' claims on appeal is directed to an *improvement* in a processor, database, or other computer/network component, we conclude that none of the claim limitations, viewed "both individually and as an ordered combination," amount to significantly more than the judicial exception in order to sufficiently transform the nature of the claims into patent-eligible subject matter. *See Alice*, 134 S. Ct. at 2355 (internal quotations omitted) (quoting *Mayo*, 566 U.S. at 79).

Appellants additionally contend:

when the claims actually amount to an abstract idea in combination with computer components used in obvious ways, one would expect the Patent Office to issue § 103 rejections as well as § 101 rejections. On the other hand, if the known art does not render the ordered combination of elements obvious, then those differences that serve to make the claims obvious should also serve to make the claims "something more" than the mere recitation of an alleged abstract idea combined-with known technology.

(App. Br. 12) (emphasis omitted).

However, the Supreme Court emphasizes: "[t]he 'novelty' of any element or steps in a process, or even of the process itself, is of **no relevance** in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter." *Diamond v. Diehr*, 450 U.S. 175, 188–89 (1981) (emphasis added). Our reviewing court further guides that "[e]ligibility and novelty are separate inquiries." *Two-Way Media Ltd. v. Comcast Cable Comm., LLC*, 874 F.3d 1329, 1340 (Fed. Cir. 2017); *see also Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1263 (Fed. Cir. 2016) (holding that "[e]ven assuming" that a particular claimed feature was novel does not "avoid the problem of abstractness").

Appellants further urge: “Given the particularities of the operations included in the present claims and the ways in which each of these operations is performed, the claims cannot and do not **preempt** the making, using, and selling of basic tools of scientific and technological work.” (App. Br. 17) (emphasis added).

However, our reviewing court guides, “While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015).

Applying the aforementioned guidance from our reviewing courts to the claims before us on appeal, we conclude, in our *Mayo/Alice* analysis, that each of Appellants’ claims 1–3 and 6–18, considered as a whole, is directed to a *patent-ineligible abstract idea* (under *step one*), and under *step two*, does not recite something “*significantly more*” to transform the nature of the claim into a patent-eligible application.

Therefore, we conclude the additional elements recited in the claims of a generic processor or a computer (i.e., a Customer Relationship Management system), and the inclusion of certain steps, acts, or functions that may be performed without a computer as **mental steps** (although more slowly than a computer using pen and paper), *do not provide an inventive concept*, without more. Accordingly, for at least the reasons discussed above, we sustain the Examiner’s rejection under 35 U.S.C. § 101 of claims

1–3 and 6–18, as being directed to patent-ineligible subject matter in light of *Alice* and its progeny.<sup>4</sup>

### CONCLUSION

The Examiner did not err in rejecting claims 1–3 and 6–18, under 35 U.S.C. § 101, as being directed to patent-ineligible subject matter.

### DECISION

We affirm the Examiner’s decision rejecting claims 1–3 and 6–18, under 35 U.S.C. § 101.

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). *See* 37 C.F.R. § 41.50(f).

### AFFIRMED

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<sup>4</sup> To the extent Appellants have not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv).