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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ALBERT MAIER, DIRK NOWAK, MARTIN OBERHOFER,
THOMAS SCHWARZ, and BAXTER R. YAZBEK

Appeal 2017-006331
Application 12/357,514
Technology Center 3600

Before JOSEPH L. DIXON, MAHSHID D. SAADAT, and
JOHN P. PINKERTON, *Administrative Patent Judges*.

SAADAT, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants¹ appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–7 and 10–12, which are all the claims pending in this application. We have jurisdiction over the pending claims under 35 U.S.C. § 6(b).

We affirm.

¹ Appellants identify International Business Machines Corporation, as the real party in interest. App. Br. 2.

STATEMENT OF THE CASE

Introduction

Appellants' invention relates to "a method and a system used to generate real life leads for participants of virtual worlds and interact with real world Customer Relationship Management (CRM) systems." Spec. ¶ 1.

Exemplary Claim

Claim 1 is exemplary and illustrative of the invention and reads as follows:

1. A method for turning virtual world participants into real life leads, comprising:
 - presenting, by a processor, a virtual location within a virtual world for access by an avatar, the avatar operated by a real-world human user;
 - performing, by a processor, an interaction with the avatar within the virtual world responsive to the avatar accessing the virtual location;
 - identifying, by a processor, the avatar based on characteristics of the avatar within the virtual world, including avatar ID and avatar name;
 - determining, by a processor, whether the avatar is associated with an existing customer registration, and determining whether the existing customer registration for the avatar identifies a real-world customer based on the identified characteristics of the avatar, the existing customer registration stored in a master data management (MDM) system tracking customer registrations for a plurality of human users and connected to a plurality of customer relationship management (CRM) systems;
 - creating, by a processor, a customer registration within the MDM system responsive to determining the avatar is not associated with the existing customer registration stored in the MDM system;

locating, by a processor, the existing customer registration within the MDM system responsive to determining the avatar is associated with the existing customer registration stored in the MDM system;

collecting, by a processor, real-world information about the real-world human user operating the avatar through the interaction with the avatar;

storing, by a processor, the collected real-world information in association with the existing customer registration into a customer registration database within the MDM system; and

communicating, by a processor, the real-world information stored in the customer registration database within the MDM system to the plurality of CRM systems,

wherein the existing customer registration in the MDM system identifying the real-world customer is associated with a plurality of avatars from a plurality of virtual worlds so the real-world information of each of the real-world customers is identified through the characteristics of the plurality of avatars from the plurality of virtual worlds,

wherein the plurality of avatars from the plurality of virtual worlds are connected to the MDM system by a plurality of virtual world connectors, and the MDM system verifies, standardizes and associates the incoming data, and detects a duplicate of the data and removes the duplicate, and

wherein, in response to the determining indicating that a new avatar is registered, triggering a dialog with the avatar offering a first incentive to the avatar; and

wherein, in response to the determining indicating that the avatar is registered in the MDM server and the determining further indicating that none of the identified characteristics are available for the real-world customer, triggering an offering of a second incentive that is larger than the first incentive.

The Examiner's Rejection

Claims 1–7 and 10–12 stand rejected under 35 U.S.C. § 101 for being directed to patent-ineligible subject matter. *See* Final Act. 7–8.

ANALYSIS

We have reviewed the Examiner's rejection in light of Appellants' arguments in the briefs that the Examiner has erred. We are unpersuaded by Appellants' contentions and agree with and adopt the Examiner's findings and conclusions in: (i) the action from which this appeal is taken (Final Act. 7–8); and (ii) the Answer (Ans. 5–17) to the extent they are consistent with our analysis below.

Principles of Law

The Patent Act defines patent-eligible subject matter broadly: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. In *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 70 (2012), and *Alice Corp. Pty. v. CLS Bank International*, 134 S. Ct. 2347, 2354 (2014), the Supreme Court explained that § 101 “contains an important implicit exception” for laws of nature, natural phenomena, and abstract ideas. *See Diamond v. Diehr*, 450 U.S. 175, 185 (1981). In *Mayo* and *Alice*, the Court set forth a two-step analytical framework for evaluating patent-eligible subject matter: First, “determine whether the claims at issue are directed to” a patent-ineligible concept, such as an abstract idea. *Alice*, 134 S. Ct. at 2355. If so, “consider the elements of each claim both individually and

‘as an ordered combination’ to determine whether the additional elements” add enough to transform the “nature of the claim” into “significantly more” than a patent-ineligible concept. *Id.* at 2355, 2357 (quoting *Mayo*, 566 U.S. at 79); see *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016).

Step one in the *Mayo/Alice* framework involves looking at the “focus” of the claims at issue and their “character as a whole.” *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016). Step two involves the search for an “inventive concept.” *Alice*, 134 S. Ct. at 2355; *Elec. Power Grp.*, 830 F.3d at 1353. An “inventive concept” requires more than “well-understood, routine, conventional activity already engaged in” by the relevant community. *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1047 (Fed. Cir. 2016) (quoting *Mayo*, 566 U.S. at 79–80). But “an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.” *BASCOM Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016). Under step two, “an inventive concept must be evident in the claims.” *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017).

Mayo/Alice Step One

The Examiner rejects claims 1–7 and 10–12 under 35 U.S.C. § 101 because they are directed to patent-ineligible subject matter. See Final Act. 7–8; Ans. 3–4. The Examiner particularly determines that the claims are directed to “the abstract idea of organizing human activities” and “the abstract idea of gather and categorizing consumer data [which] is similar to

the abstract idea of using categories to organize transactional information (Cyberfones).” Final Act. 7; Ans. 3.

The Examiner further finds the claims use generic computer components to perform generic computer functions, which “do not amount to significantly more than the abstract idea.” *See id.* The Examiner particularly determines:

Without a computer, one may process data organization by manually recording data points and mentally categorize them according to a desired data representation (i.e. manually logging customer data based on identity gathered via a general purpose computer). Moreover, the steps of gathering, parsing, and deduplicating data from virtual worlds do not satisfy this prong because these activities are well-understood, routine and conventional in the field of lead generation.

Final Act. 8; Ans. 4.

Appellants contend the Examiner erred. *See App. Br. 12–27; see also Reply Br. 4–10.* Appellants argue that “[s]imilar to the analysis in *Enfish*, the inquiry regarding the claims of the present application should be whether the focus of the claims is on the specific asserted improvement in computer capabilities.” App. Br. 14–15. Appellants assert claim 1 recites:

[d]etermining, by a processor, whether the avatar is associated with an existing customer registration, and determining whether the existing customer registration for the avatar identifies a real-world customer based on the identified characteristics of the avatar, the existing customer registration stored in a master data management (MDM) system tracking customer registrations for a plurality of human users and connected to a plurality of customer relationship management (CRM) systems.

App. Br. 15–16. Appellants point to paragraph 51 of their Specification for a description of the recited activities and their benefits and argue such

recitation is similar to those of the claims in *Research Corp. Tech., Inc. v. Microsoft Corp.*, 627 F.3d 859 (Fed. Cir. 2010). App. Br. 16.

We disagree. The “abstract idea” category encompasses a variety of concepts including, among other things, mathematical formulas and methods of organizing human activity. See *Alice*, 134 S. Ct. at 2355–56; *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1367 (Fed. Cir. 2015) (deeming the claim at issue is “not meaningfully different from the ideas found to be abstract in other cases before the Supreme Court and our court involving methods of organizing human activity”); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1351–55 (Fed. Cir. 2014) (creating a contractual relationship); *Fort Props., Inc. v. Am. Master Lease LLC*, 671 F.3d 1317, 1318, 1322–23 (Fed. Cir. 2012) (enabling tax-free property exchanges); *Bancorp Servs., L.L.C. v. Sun Life Assur. Co.*, 687 F.3d 1266, 1277 (Fed. Cir. 2012) (administering and tracking life-insurance-policy values); *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1330–34 (Fed. Cir. 2012) (applying for credit); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1367–68, 1376–77 (Fed. Cir. 2011) (verifying credit-card transactions); *In re Comiskey*, 554 F.3d 967, 970–71, 981 (Fed. Cir. 2009) (conducting an arbitration); *In re Schrader*, 22 F.3d 290, 291, 293–94 (Fed. Cir. 1994) (bidding at an auction).

Appellants argue the claims are not abstract because their focus is on specific asserted improvements in computer capabilities as described in paragraph 51 of the Specification. App. Br. 14–15. Appellants further argue, unlike the claims in *Cyberfone*, the present claims recite “a specific way to manage computer server (or a customer relationship management (CRM) system) across multiple virtual worlds” and include features that “are

not generic computer functions that are well-understood, routine and conventional activities previously known to the pertinent industry.” App. Br. 18.

Appellants’ arguments do not persuade us of Examiner error. Implementing an abstract idea using a “physical machine” does not impart patent eligibility. *See Mayo*, 566 U.S. at 84; *see also* Ans. 2–3. “[N]ot every claim that recites concrete, tangible components escapes the reach of the abstract-idea inquiry.” *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016). The inability of a human to accomplish each step “does not alone confer patentability.” *See FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1098 (Fed. Cir. 2016). In *Alice*, for example, “[a]ll of the claims [we]re implemented using a computer.” 134 S. Ct. at 2353, 2360.

We further observe Appellants’ assertions disregard: (1) the Examiner’s explanation that the claims “are directed toward an abstract idea consistent with the types of abstract ideas identified by the courts”; and (2) the Examiner’s discussion of *Cyberfone*. Final Act. 7; *see Cyberfone Sys., LLC v. CNN Interactive Grp., Inc.*, 558 F. App’x 988 (Fed. Cir. 2014). In *Cyberfone*, the Federal Circuit determined that claims for “using categories to organize, store, and transmit information” were directed to an abstract idea. 558 F. App’x at 990–92. Furthermore, adding one abstract idea (“using categories to organize, store, and transmit information”) to another abstract idea (“comparing new and stored information and using rules to identify options”) does not render the claims non-abstract. *See* App. Br. 16; *RecogniCorp*, 855 F.3d at 1327. *See also McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016); *Enfish, LLC v.*

Microsoft Corp., 822 F.3d 1327 (Fed. Cir. 2016). In *Enfish*, “the plain focus of the claims is on an improvement to [the] computer functionality itself.” *Enfish*, 822 F.3d at 1336. In *McRO*, the claims “focused on a specific asserted improvement in computer animation.” *McRO*, 837 F.3d at 1314. In contrast, we do not find a claimed focus on a specific technical improvement here. Hence, we discern no error in the Examiner’s analysis of court decisions.

We also find unpersuasive Appellants’ argument that

“collecting, by a processor, real-world information about the real-world human user operating the avatar through the interaction with the avatar; . . . and communicating, by a processor, the real-world information stored in the customer registration database within the MDM system to the plurality of CRM systems, . . . wherein the plurality of avatars from the plurality of virtual worlds are connected to the MDM system by a plurality of virtual world connectors, and the MDM system verifies, standardizes and associates the incoming data, and detects a duplicate of the data and removes the duplicate” are enough to qualify as “[a]dding unconventional steps that **confine the claim to a particular useful application**”, as set forth in the Interim Guidance on Patent Subject Matter Eligibility issued December 16, 2014.

Reply Br. 4. We also disagree with Appellants’ assertion that their claims recite subject matter that is similar to that of the claims in *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016). “We therefore look to whether the claims [here] 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.” *McRO*, 837 F.3d at 1314.

In *McRO*, the court determined that claim 1 “focused on a specific asserted improvement in computer animation” for achieving automated lip synchronization of 3-D characters. *Id.* at 1314–15. Here, representative claim 1 is directed to a process for verifying a user and collecting information, which Appellants characterize as “improvements to computer systems implementing virtual worlds” or “a problem and solutions related generating real life leads for participants of virtual worlds and interact with real world Customer Relationship Management (CRM) systems” (Reply Br. 6) by invoking a generic processor, rather than any improvement to computer technology. In contrast to *McRO*, which focused on a specific improvement in computer animation technology, Appellants’ claim does not concern an improvement to computer capabilities, but instead relates to an alleged improvement in managing the interaction of virtual worlds’ participants with real world product marketing. In fact, the claims here cover data collection, manipulation, and communication. App. Br. 29–37 (Claims App.).

In that regard, the Examiner correctly determines that

The Office finds that the claimed invention falls in to the category of a process that qualifies as an “abstract idea” for which computers are invoked merely as a tool. The claimed invention is directed to “turning virtual world participants into real life leads” via data collection and data categorization. *See Claims*. It is readily apparent that performing lead generation is a well-known type of commercial activity and an abstract idea. For example, multiple vendors may reconcile their CRMs to identify leads and award cross-sale loyalty points. *See Specification [0051]*.

Ans. 5–6. The Federal Circuit has ruled that claims covering data collection, manipulation, and communication were directed to abstract ideas. *See, e.g.,*

SAP Am., Inc. v. InvestPic, LLC, No. 2017-2081, 2018 WL 2207254, at *2, 4–5 (Fed. Cir. May 15, 2018); *Smart Sys. Innovations, LLC v. Chi. Transit Auth.*, 873 F.3d 1364, 1368–73 (Fed. Cir. 2017); *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1047, 1054–56 & n.6 (Fed. Cir. 2017); *Elec. Power Grp.*, 830 F.3d at 1351–54.

Mayo/Alice Step Two

Appellants assert that the claims satisfy *Mayo/Alice* step two because the claimed features “are necessarily rooted in computer technology in order to overcome a problem and solution specifically arising in the realm of virtual worlds” and “are specific limitations other than what is well-understood routine and conventional in the field.” App. Br. 19. Appellants also assert that the claims here are similar to the claims in *DDR Holdings*, and are thus drawn to patentable subject matter. See App. Br. 20–22 (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014)). *DDR Holdings* does not help Appellants.

In *DDR Holdings*, the Federal Circuit determined that certain claims satisfied *Mayo/Alice* step two because “the claimed solution amount[ed] to an inventive concept for resolving [a] particular Internet-centric problem,” i.e., a challenge unique to the Internet. *DDR Holdings*, 773 F.3d at 1257–59; see *Synopsys*, 839 F.3d at 1151 (noting that “[i]n *DDR Holdings*, we held that claims ‘directed to systems and methods of generating a composite web page that combines certain visual elements of a “host” website with content of a third-party merchant’ contained the requisite inventive concept”). In *DDR Holdings*, the Federal Circuit explained that the patent-eligible claims specified “how interactions with the Internet are manipulated to yield a desired result . . . that overrides the routine and conventional sequence of

events ordinarily triggered by the click of a hyperlink.” *DDR Holdings*, 773 F.3d at 1258. The court reasoned that those claims recited a technological solution “necessarily rooted in computer technology” that addressed a “problem specifically arising in the realm of computer networks.” *Id.* at 1257.

We also are not persuaded that the claimed features are rooted in computer technology because “the claimed rules and algorithms expressly focuses on the unique nature of the virtual worlds, which *necessarily* requires post-internet and post-computer technology, in order to generate of real life leads for participants of virtual worlds and interact with real world Customer Relationship Management (CRM) systems.” Reply Br. 8. We also disagree with Appellants’ reliance on *DDR Holdings* and the assertion that the claim

relies on the unique nature of the virtual worlds, which has no equivalent system in the brick and mortar context, to determine whether the avatar is associated with an existing customer registration, and determining whether the existing customer registration for the avatar identifies a real-world customer based on the identified characteristics of the avatar.

Reply Br. 9. In fact, the argued improvement is focused on an alleged improvement to the abstract idea. *See Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) (“[T]he focus of the claims is not on such an improvement in computers as tools, but on certain independently abstract ideas that use computers as tools.”). Furthermore, according to 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.*, 873 F.3d at 1375 (quoting *TLI Commc’ns*, 823 F.3d at 613). Similarly, the claims here do not attempt to solve a challenge particular to managing

computer servers across multiple virtual worlds. Among other things, they do not require any unconventional network/storage configurations or any uncommon customer relationship management (CRM) systems.

Lastly, Appellants assert that the claims satisfy *Mayo/Alice* step two because “the improvements to computer/internet technology offered by the claimed features” such as “a specific way to solve problems arising in the realm of computer network” transforms them into significantly more than a patent-ineligible abstract idea. App. Br. 24–25. Appellants also assert that “instead of the plurality of virtual world users, the system can specifically provide marketing campaign/advertisement to a single user in real world” and produce “the effect of automatically reducing load of the computer networks utilized in providing the marketing campaign/advertisements.” App. Br. 25.

Appellants’ assertions do not persuade us of Examiner error. “The search for a § 101 inventive concept is . . . distinct from demonstrating § 102 novelty.” *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016); see *Diehr*, 450 U.S. at 188–89; *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1340 (Fed. Cir. 2017). “[U]nder the *Mayo/Alice* framework, a claim directed to a newly discovered law of nature (or natural phenomenon or abstract idea) cannot rely on the novelty of that discovery for the inventive concept necessary for patent eligibility.” *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376 (Fed. Cir. 2016). “[A] claim for a *new* abstract idea is still an abstract idea.” *Synopsys*, 839 F.3d at 1151. Similarly, a claim for a beneficial abstract idea is still an abstract idea. See *Ariosa*, 788 F.3d at 1379–80. Further, the Federal Circuit has expressly rejected the notion that “abstract ideas remain

patent-eligible under § 101 as long as they are new ideas, not previously well known, and not routine activity.” *Ultramercial*, 772 F.3d. at 714–16. Thus, the claims’ alleged novelty and improvements fail to provide an inventive concept needed to satisfy *Mayo/Alice* step two.

The claims here do not achieve an improvement in computer functionality. *See* Ans. 14. Appellants do not describe an advance in hardware or software that, for example, causes a computer itself or a database itself to perform the marketing functions more efficiently. Appellants do not address the operation of a computer itself or a database itself. Instead, Appellants discuss collecting real-world information about users operating the avatar that allegedly solves “related generating real life leads for participants of virtual worlds and interact with real world Customer Relationship Management (CRM) systems.” Reply Br. 6 (quoting Spec. ¶¶ 2–12). Further, the claims here do not recite a technological solution to a technological problem specific to computer algorithms and networks, e.g., because they do not require any unconventional network configurations. App. Br. 29–37 (Claims App.). Rather, they require generic computer components for collecting and verifying user data.

Preemption

Appellants contend that the claims do not seek to “tie up” any judicial exception and instead recite “a specific way to manage computer server (or a customer relationship management (CRM) system) across multiple virtual worlds” and do not “pre-empt or tie up all methods of generating leads (*i.e.*, the purported abstract idea).” App. Br. 23–24.

Appellants’ contentions do not persuade us of Examiner error. *See* Ans. 13 (addressing monopolization and preemption). While preemption

may denote patent ineligibility, its absence does not demonstrate patent eligibility. *See FairWarning*, 839 F.3d at 1098. For claims covering a patent-ineligible concept, preemption concerns “are fully addressed and made moot” by an analysis under the *Mayo/Alice* framework. *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015).

CONCLUSION

For the reasons discussed above, Appellants’ arguments have not persuaded us of any error in the Examiner’s findings or conclusions under *Mayo/Alice* step one or step two. Hence, we sustain the § 101 rejection of claims 1–7 and 10–12.

DECISION

We affirm the Examiner’s decision to reject claims 1–7 and 10–12.

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