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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RICK A. HAMILTON II, BRIAN M. O’CONNELL,
CLIFFORD A. PICKOVER, and KEITH R. WALKER

Appeal 2017-000142
Application 12/039,215¹
Technology Center 3600

Before HUNG H. BUI, AMBER L. HAGY, and
MICHAEL J. ENGLE, *Administrative Patent Judges*.

ENGLE, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1–25. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

Technology

The application relates to “preventing fraudulent phishing activity in a virtual universe.” Spec. ¶ 1.

¹ According to Appellants, the real party in interest is International Business Machines Corp. App. Br. 1.

Illustrative Claim

Claim 1 is illustrative and reproduced below:

1. A method for tagging a virtual entity in a virtual universe, comprising:

providing a first command on a user interface of the virtual universe for any user of the virtual universe to generate a first report in response to a phishing activity by the virtual entity,

wherein the virtual universe is a computer simulated three-dimensional environment, the virtual entity is an interactive virtual representation in the virtual universe, and the phishing activity includes the virtual entity fraudulently emulating another entity;

providing a second command on the user interface of the virtual universe for any user of the virtual universe to generate a second report questioning the first report;

receiving the first report from the user of the virtual universe,

wherein the receiving includes filtering the first report to determine if the first report is of interest to be further processed, the filtering being based on a plurality of contents of the first report, wherein the contents include an indication of the virtual entity fraudulently emulating another avatar, another virtual store, or another non-virtual store;

processing the first report from the user of the virtual universe to determine a response to the first report,

wherein the processing includes:

determining whether the first report reliably represents the virtual entity and, in response to the second report being generated, determining whether the second report refutes the first report; and

tagging the virtual entity based on the first report in a public manner in the virtual universe such that the tagging remains with the virtual entity as the virtual entity traverses between regions in the virtual universe,

wherein the tagging notifies other users in the virtual universe about the reported phishing activity of the virtual entity via at least one of an audio alert attached to the virtual entity in the virtual universe and a visual alert attached to the virtual entity in the virtual universe, the tagging being modifiable by other users in the virtual universe.

Examiner's Rejections

(1) Claims 1–25 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 16.

(2) Claims 1–4, 6–12, 14–20, and 22–25 stand rejected under 35 U.S.C. § 103(a) as obvious over the combination of Hong (US 2009/0182872 A1; July 16, 2009), Bower et al. (US 2002/0198940 A1; Dec. 26, 2002), Abhyanker (US 2008/0319778 A1; Dec. 25, 2008), and Kohanim et al. (US 2009/0187442 A1; July 23, 2009). Final Act. 19.

(3) Claims 5, 13, and 21 stand rejected under 35 U.S.C. § 103(a) as obvious over the combination of Hong, Bower, Abhyanker, Kohanim, and Bohannon (US 2008/0275916 A1; Nov. 6, 2008). Final Act. 40.

ISSUES

1. Did the Examiner err in concluding claim 1 was directed to patent-ineligible subject matter under § 101?
2. Did the Examiner err in finding Appellants had not demonstrated reasonable diligence in order to antedate Hong and Kohanim?

ANALYSIS

§ 101: Patent-Eligible Subject Matter

Section 101 defines patentable subject matter: “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

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title.” 35 U.S.C. § 101. The Supreme Court, however, has “long held that this provision contains an important implicit exception” that “[l]aws of nature, natural phenomena, and abstract ideas are not patentable.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012) (quotation omitted). To determine patentable subject matter, the Supreme Court has set forth a two part test.

“First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts” of “laws of nature, natural phenomena, and abstract ideas.” *Alice Corp. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (2014). “The inquiry often is whether the claims are directed to ‘a specific means or method’ for improving technology or whether they are simply directed to an abstract end-result.” *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017). A court must be cognizant 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), and “describing the claims at . . . a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016). Therefore, “the claims are considered in their entirety to ascertain 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).

In the second step, we “consider the elements of each claim both 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). The Supreme Court has “described step two of this analysis as a search for an ‘inventive concept’—*i.e.*, an element or combination of elements that is

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sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself.” *Id.* (quotation omitted). For computer-related technology, the Federal Circuit has held that a claim may pass the second step if “the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer [technology].” *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014) (e.g., “a challenge particular to the Internet”).

Appellants argue “claim 1 . . . recites specific limitations other than what is well-understood, routine and conventional” because “Hong and Kohanim do not qualify as prior art.” App. Br. 8. In addition to disagreeing with Appellants regarding whether Hong and Kohanim qualify as prior art (as discussed below), we also agree with the Examiner that “this is a rejection under 35 USC 101 and not a rejection under 35 USC 102/103.” Ans. 12. The Federal Circuit has explained that “under 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).

Appellants also argue “[t]he abstract idea that the Office has asserted – ‘reporting phishing activity in a virtual world’ [–] is not similar to any of” “(1) Fundamental Economic Practices; (2) An Idea ‘Of Itself’; (3) Certain Methods of Organizing Human Activity; and (4) Mathematical Relationships/Formulas.” App. Br. 12. We agree with the Examiner, however, that “[t]he claimed invention has done nothing more than take the abstract idea and simply apply[] it to a different environment, in this case in an online environment[,] and us[e] software interfaces in order to carry out

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the manual processes that are known in the art of reporting fraudulent activity.” Ans. 21. Thus, “instead of performing the entire process manually the invention is simply using electronic forms/interfaces” and “there is no improvement upon the technology.” *Id.* at 21–22.

We find several recent cases—all issued after briefing in this case—to be instructive. One non-precedential decision involved the technology of detecting undesirable files according to pre-set criteria. *Intellectual Ventures I LLC v. Erie Indem. Co.*, 711 F. App’x 1012, 1014 (Fed. Cir. Nov. 3, 2017) (unpublished). The Federal Circuit determined “the claims are directed to the identification of unwanted files in a particular field (i.e., a computer network)” and “[w]e have found the idea of performing a search to ferret out sources with unwanted material ‘based on characteristics’ of the source to be directed to an abstract idea.” *Id.* at 1015–16 (quoting *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1314 (Fed. Cir. 2016)). “TV has not argued that the claimed processes of selecting errant files apply rules of selection in a manner different from those which humans used . . . before the invention was claimed.” *Id.* at 1016. The same is true where, as here, the claims are directed to the identification of unwanted activities in a particular field (i.e., a virtual universe), but the process of providing a report, providing a counter-report, assessing the reports, and tagging the entity could all be done manually. “The Supreme Court and this court 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.” *Affinity Labs of Texas, LLC v. DirecTV, LLC*, 838 F.3d 1253, 1259 (Fed. Cir. 2016); *Alice*, 134 S. Ct. at 2358. Indeed, unlike the claims in *Erie Indemnity*, which at least specify certain pre-set criteria, the claims here do not specify—let

alone provide a technological improvement for—how the reports are provided or how to determine whether the reports “reliably represent” or “refute” allegations of phishing.

The precedential case of *Symantec* also is instructive and involved “filtering e-mails that have unwanted content.” 838 F.3d at 1313. The Federal Circuit agreed with the district court that “receiving e-mail (and other data file) identifiers, characterizing e-mail based on the identifiers, and communicating the characterization—in other words, filtering files/e-mail—is an abstract idea.” *Id.* The court analogized the claims to receiving paper mail and discarding letters based on, for example, the sender listed on the envelope, an entirely manual process. *Id.* at 1314. Thus, the court concluded “[t]he patent merely applies a well-known idea using generic computers to the particular technological environment of the Internet.” *Id.* (quotation omitted). The same is true here for the filtering of reports “in a virtual universe.”

This case can also be analogized to another precedential decision in that “the claims here are directed to collecting and analyzing information to detect misuse and notifying a user when misuse is detected,” which the Federal Circuit has held is just “a combination of these abstract-idea categories.” *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016). Thus, just as in *Erie Indemnity*, *Symantec*, and *FairWarning*, we conclude the claims here are directed to an abstract idea.

Appellants further argue “[t]he recited method of tagging a virtual entity in a virtual universe as defined in claim 1 . . . includes meaningful limitations that add more than a general linking of the use of an abstract idea.” App. Br. 13 (quotation omitted). We agree with the Examiner, however, that “merely copying and pasting the claim language and stating

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that these limitations . . . recit[e] more than a mere abstract idea is . . . insufficient.” Ans. 8. For example, other than being in a different field of use, it is unclear how tagging “a virtual entity in a virtual universe” is significantly more than, for example, Nathaniel Hawthorne’s 1850 novel *The Scarlet Letter* tagging the protagonist with a scarlet “A” on her dress.

Though lengthy and numerous, the claims do not go beyond requiring the collection, analysis, and display of available information in a particular field, stating those functions in general terms, without limiting them to technical means for performing the functions that are arguably an advance over conventional computer and network technology.

Elec. Power Grp., LLC v. Alstom S.A., 830 F.3d 1350, 1351 (Fed. Cir. 2016); *FairWarning*, 839 F.3d at 1097–98; Ans. 13–14. Thus, Appellants have not shown the Examiner erred in determining the claims do not recite significantly more than the abstract idea.

Accordingly, we sustain the Examiner’s rejection under § 101 of claim 1, and claims 2–25, which Appellants argue are patentable for similar reasons. *See* App. Br. 14; 37 C.F.R. § 41.37(c)(1)(iv).

§ 103: Antedating Hong and Kohanim

The Examiner finds all claims obvious based on combinations that include Hong and Kohanim. Final Act. 19, 40. Hong claims priority to a provisional application filed on January 16, 2008. App. Br. 14. Kohanim was filed on January 23, 2008. *Id.* The present application was filed on February 28, 2008. Appellants therefore attempt to swear behind Hong and Kohanim. In particular, Appellants submit an invention disclosure form (“Exhibit A”) as well as declarations from the inventors and an attorney at Appellants’ law firm. *See* Decls. of Rook, Hamilton, Pickover, Walker, and O’Connell (Apr. 22, 2015); Ex. A, Disclosure END8-2007-0053.

The Examiner determines “[t]he evidence submitted is insufficient to establish diligence” and “insufficient to establish a conception of the invention prior to the effective date” of Hong and Kohanim. Ans. 28. In particular, the Examiner finds the declarations insufficient because “the inventors simply state that prior to January 16, 2008 the invention was conceived” without providing any explanation or proof, and “Mr. Rook has failed to provide reasons or evidence to explain for the gaps of inactivity that occurred between January 16, 2008 and February 28, 2008.” *Id.* at 40–41 (emphasis omitted). Similarly, the Examiner finds “Exhibit A is nothing more than a high level overview” that does not tie the disclosures of Exhibit A to the claim language and in fact is directed towards a different concept (e.g., tagging a parcel of land rather than an avatar). *Id.* (emphasis omitted).

“Pre-AIA section 102(g) allows a patent owner to antedate a reference by proving earlier conception and reasonable diligence in reducing to practice.” *Perfect Surgical Techniques, Inc. v. Olympus Am., Inc.*, 841 F.3d 1004, 1007 (Fed. Cir. 2016). “Reasonable diligence must be shown throughout the entire critical period, which begins just prior to the competing reference’s effective date and ends on the date of the invention’s reduction to practice.” *Id.*

“Diligence turns on the factual record.” *In re Steed*, 802 F.3d 1311, 1317 (Fed. Cir. 2015); *see also* 37 C.F.R. § 1.131(b).

A patent owner need not prove the inventor *continuously* exercised reasonable diligence throughout the critical period; it must show there was *reasonably continuous* diligence. Under this standard, an inventor is not required to work on reducing his invention to practice every day during the critical period. And periods of inactivity within the critical period do not automatically vanquish a patent owner’s claim of reasonable diligence.

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Perfect Surgical, 841 F.3d at 1009 (citations omitted). Nevertheless, “[a]n inventor’s testimony regarding his reasonable diligence must be corroborated by evidence.” *Id.* at 1007.

Here, the inventors all make the same conclusory assertion regarding diligence: “That, subsequent to the conception of the invention, and up until the patent application filing date of 02-28-2008, we diligently and actively assisted the IBM Corporation Patent Department in the planning, preparation, review, and filing of the above-identified patent application.” Hamilton Decl. ¶ 7; Pickover Decl. ¶ 7; Walker Decl. ¶ 7; O’Connell Decl. ¶ 7. The only evidence supporting the inventors’ assertion of diligence is a declaration from an attorney at Appellants’ prosecuting law firm, which states that “[t]he following statements are based upon my review of the business records kept with Hoffman Warnick LLC”:

That prior to 01-16-2008, Hoffman Warnick LLC received a request to prepare a patent application and file the same with the [USPTO].

The . . . patent application was filed . . . on 02-28-2008.

Accordingly, prior to 01-16-2008, and up until the patent application filing date of 02-28-2008, Hoffman Warnick LLC diligently and actively assisted the Applicant and inventors in the preparation, review, and filing of the above-identified patent application.

Rook Decl. ¶¶ 2–5 (numbering and spacing omitted). No date is given for when Hoffman Warnick received the request to prepare an application, and no further evidence is provided for when Hoffman Warnick was or was not actively working on the application, nor for what work had already been completed prior to January 16, 2008.

“An attorney’s work in preparing a patent application is evidence of an inventor’s diligence.” *Perfect Surgical*, 841 F.3d at 1010. Thus, we are

“required to weigh this evidence [of activity of preparing and filing the application] by application of a rule of reason over the course of the entire critical period.” *Id.* at 1010–11. Nevertheless, we are not persuaded that a rule of reason demonstrates diligence here.

The Federal Circuit’s predecessor dealt with a similar scenario in considering diligence of attorneys between October 29 and December 5, 1955:

[A] rule of reason should be followed in cases of this kind and . . . courts should be somewhat liberal in determination of diligence of attorneys and of their clerical and stenographic staffs, since the law cannot presume that such people can immediately begin and expeditiously perform their duties as soon as work appears on their desks. Nevertheless we think that appellant is attempting to use those principles as substitutes for record evidence, of which there is very little.

D’Amico v. Koike, 347 F.2d 867, 871 (CCPA 1965). In *D’Amico*, similar to here, conclusory testimony was submitted that work would normally have been done in the intervening time period, but no substantive evidence was submitted to prove that. *Id.* at 869.

There is no end to the inferences which might be drawn from the scanty record before us and we prefer not to indulge in them, but we cannot overlook the fact that Koike’s priority date falls nearly midway in this two-month period and it is certainly possible that all of D’Amico’s activity took place during the period prior to October 29, whereupon the application lay idle for nearly one month awaiting execution by the inventor. Be that as it may, that month is the critical month and the record contains no evidence, even of the weakest sort, whether in it anything occurred.

D’Amico, 347 F.2d at 871; *see also Bey v. Kollonitsch*, 806 F.2d 1024, 1028 (Fed. Cir. 1986) (“[The prosecuting attorney’s] records did not show the exact days when activity specific to this application occurred. Thus, we cannot say that the board clearly erred in finding that the documented

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activities with regard to the present application are insufficient by themselves to prove diligence.”) (quotation omitted).

The Federal Circuit has “declined to excuse the patent owner’s complete lack of evidence” even when “the critical period spanned just two days.” *Perfect Surgical*, 841 F.3d at 1009 (discussing *In re Mulder*, 716 F.2d 1542, 1542–46 (Fed. Cir. 1983)). The same logic applies here where Appellants provided only conclusory declarations without any further facts or evidence to support such assertions.

Accordingly, we sustain the Examiner’s rejections under § 103 of claim 1, and claims 2–25, which Appellants argue are patentable for similar reasons. *See* App. Br. 16; 37 C.F.R. § 41.37(c)(1)(iv).

DECISION

For the reasons above, we affirm the Examiner’s decision rejecting claims 1–25.

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. § 41.50(f).

AFFIRMED