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 VICTORIA M. BELLOTTI, OLIVER BRDICZKA,
and LAURIAN CLAIRE VEGA

_____

Appeal 2016-007171
Application 13/171,087
Technology Center 3600

_____

Before: MAHSHID D. SAADAT, KRISTEN L. DROESCH, and
TERRENCE W. MCMILLIN, *Administrative Patent Judges*.

SAADAT, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants[1] appeal under 35 U.S.C. § 134(a) from the Examiner's
Final Rejection of claims 1–27, 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.

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[1] Appellants identify Palo Alto Research Center, Incorporated, as the real
party in interest. App. Br. 1.

STATEMENT OF THE CASE

Introduction

Appellants' invention relates to managing human-specified activities. Spec. ¶ 1.

Exemplary Claim

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

> 1.   A computer-executable method for identifying user activities, the method comprising:
>
>   collecting, by a computer, activity descriptions from one or more computing devices associated with a plurality of users, wherein a respective activity description indicates at least one feature, from a viewpoint of one or more users, for an activity associated with the viewpoint, and wherein a viewpoint indicates a type of entity describing an activity;
>
>   identifying a user activity for a respective viewpoint, wherein the user activity includes a typed, stateful, and instantiated entity, and indicates a type of activity being performed by a user of the respective viewpoint, and wherein identifying the user activity involves:
>
>   selecting one or more activity descriptions associated with a plurality of user activities of the respective viewpoint;
>
>   computing a score for a respective feature of an activity description that is weighted according to a historical correlation of the respective feature with respect to a respective user activity versus a historical correlation of the respective feature with other activities;
>
>   computing a score for the respective user activity, based on the weighted scores for the respective features of the corresponding activity descriptions; and

> determining, from the plurality of user activities, a
> user activity whose computed score is greater than a
> predetermined threshold; and
>
> generating an activity model for the identified activity
> based on the activity description features that are associated
> with the identified activity and the respective viewpoint.

The Examiner's Rejections

Claims 1–27 stand rejected under 35 U.S.C. § 101 for being directed to patent-ineligible subject matter. *See* Final Act. 5–7.

Claims 1–4 and 6–27 stand rejected under 35 U.S.C. § 103(a) for being unpatentable over Feinsmith (US 2005/0182773 A1; pub. Aug.18, 2005), Cohen et al. (US 2003/0115333 A1; pub. June 19, 2003) (hereinafter "Cohen"), and Kargupta (US 2010/0017870 A1; pub. Jan. 21, 2010). *See* Final Act. 8–27.

Claim 5 stands rejected under 35 U.S.C. § 103(a) for being unpatentable over Feinsmith, Cohen, Kargupta, in view of Chung et al. (US 2007/0239517 A1; pub. Oct. 11, 2007) (hereinafter "Chung") and Bhaskaran (US 2010/0125911 A1; pub. May 20, 2010). *See* Final Act. 27–28.

ANALYSIS

We have reviewed the Examiner's rejections in light of Appellants' arguments in the briefs that the Examiner has erred. We are unpersuaded by Appellants' contentions and concur with the findings and conclusions reached by the Examiner as explained below.

Rejection Under 35 U.S.C. § 101

With regard to the Examiner's rejection under 35 U.S.C. § 101, we disagree with Appellants' arguments, and agree with and adopt the Examiner's findings and conclusions in: (i) the action from which this appeal is taken (Final Act. 5–7); and (ii) the Answer (Ans. 2–6) to the extent they are consistent with our analysis below.

The Examiner rejects the claims under 35 U.S.C. § 101 because they are directed to patent-ineligible subject matter. *See* Final Act. 5. The Examiner specifically finds the claims are directed to the abstract idea of a mathematical formula or algorithm for computing scores. *See id.* The Examiner further finds the claims use generic computer components to perform generic computer functions, which "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 than the abstract idea itself." *See id.* at 5–6. Appellants argue the Examiner erred. *See* App. Br. 14–23; *see also* Reply Br. 9–15.

Appellants have not persuaded us of error. Section 101 of the Patent Act provides "[w]hoever 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. That 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 *Association for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)). According to the Supreme Court:

> [W]e set forth a framework for distinguishing patents that
> claim laws of nature, natural phenomena, and abstract ideas
> from those that claim patent-eligible applications of those
> concepts. First, we determine whether the claims at issue are
> directed to one of those patent-ineligible concepts. . . . If so, we
> then ask, "[w]hat else is there in the claims before us?" . . . To
> answer that question, 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. . . . We have described
> step two of this analysis as a 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."

Alice Corp., 134 S. Ct. at 2355. The Federal Circuit has described the *Alice*
step-one inquiry as looking at the "focus" of the claims, their "character as a
whole," and the *Alice* step-two inquiry as looking more precisely at what the
claim elements add—whether they identify an "inventive concept" in the
application of the ineligible matter to which the claim is directed. *See*
Electric Power Group, LLC v. Alstom S.A., 830 F.3d 1350, 1353 (Fed. Cir.
2016); *see also Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36
(Fed. Cir. 2016); and *Internet Patents Corp. v. Active Network, Inc.*, 790
F.3d 1343, 1346 (Fed. Cir. 2015).

Regarding *Alice* step one, the Federal Circuit has "treated *collecting
information*, including when limited to particular content (which does not
change its character as information), as within the realm of abstract ideas."
Electric Power, 830 F.3d at 1353 (emphasis added); *see also Internet
Patents*, 790 F.3d at 1348–49; *OIP Techs., Inc. v. Amazon.com, Inc.*, 788
F.3d 1359, 1363 (Fed. Cir. 2015); and *Content Extraction & Transmission
LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir.

2014). "In a similar vein, we have treated *analyzing information* by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category." *Electric Power*, 830 F.3d at 1354 (emphasis added); *see also In re TLI Commc'ns. LLC Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016). "And we have recognized that *merely presenting the results of abstract processes of collecting and analyzing information, without more* (such as identifying a particular tool for presentation), is abstract as an ancillary part of such collection and analysis." *Electric Power*, 830 F.3d at 1354 (emphasis added); *see also Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714–15 (Fed. Cir. 2014).

Appellants' assertions regarding contrasting the claims with those in *Digitech* and *SmartGene* are not persuasive either. We are cognizant that in determining whether a process claim recites an abstract idea, we must examine the claim as a whole, keeping in mind that an invention is not ineligible just because it relies upon a law of nature or mathematical algorithm (*see Digitech Image Techs., LLC v. Electronics for Imaging, Inc.*, 758 F.3d 1344, 1350 (Fed. Cir. 2014)) or compares new and stored information. *See SmartGene, Inc. v. Advanced Biological Labs., SA*, 555 Fed. Appx. 950, 955 (Fed. Cir. 2014). However, the rejected claims "fall into a familiar class of claims 'directed to' a patent-ineligible concept." *Electric Power*, 830 F.3d at 1353. Contrary to Appellants' arguments (App. Br. 16–19; *see also* Reply Br. 9), the claims are similar to the claims of *Electric Power,* and are focused on the combination of abstract-idea processes or functions. *See Electric Power*, 830 F.3d at 1354. For example, claim 1 is directed to collecting information ("collecting, by a computer,

6

activity descriptions"), analyzing (including generating) information ("identifying a user activity for a respective viewpoint"), and presenting information ("generating an activity model"). App. Br. 52, Claims App. Similarly, independent claims 10 and 18 are directed to collecting information, analyzing (including generating) information, and presenting information. *See Electric Power*, 830 F.3d at 1353. The dependent claims are directed to similar functions or processes, and Appellants have not shown such claims are directed to other non-abstract functions or processes. *See* App. Br. 53–55, 56–58, and 59–61, Claims App. As a result, we agree with the Examiner that the claims are directed to abstract functions or processes for performing financial transactions.

Regarding *Alice* step two, contrary to Appellants' assertion (App. Br. 19–23; *see also* Reply Br. 9–11), Appellants have not shown the claims in this case require an arguably inventive set of components or methods, or invoke any assertedly inventive programming. *See Electric Power*, 830 F.3d at 1355. Furthermore, the claims are similar to the claims of *Electric Power*, because they do not require any nonconventional computer components, or even a "non-conventional and non-generic arrangement of known, conventional pieces," but merely call for performance of the claimed information collection and analysis functions on generic computer components. *See Electric Power*, 830 F.3d at 1355; *see also* App. Br. 52 (Claim 1 (reciting "[a] computer-executable method," "by a computer")), 55–56 (Claim 10 (reciting "[a] non-transitory computer-readable storage medium")), and 58–59 (Claim 18 (reciting "[a] system . . . comprising: a processor; a memory; a collecting mechanism")). The dependent claims call for similar generic components and devices, and Appellants have not shown

7

those claims require any non-conventional components or devices. *See* App. Br. 53–55, 56–58, and 59–61, Claims App.

Contrary to Appellants' assertion (App. Br. 19–21), the claims are not similar to those in *Diamond v. Diehr*, 450 U.S. 175, 177–78 (1981) because they do not recite "a process designed to solve a technological problem 'in conventional industry practice.'" *See* Ans. 5; *see also* App Br. 19–20. Claim 1 recites collecting information on user activities and processing the information to generate a different type of information. The Examiner has identified subject matter in claim 1 that is similar to subject matter found by our reviewing courts to be abstract. The Examiner has determined that each of the limitations of claim 1 is directed to at least one of the following previously established abstract ideas: (1) an idea itself that can be performed in the human mind or by a human using a pen and paper (*see Cybersource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011)); (2) comparing new and stored information and using rules to identify options (*see SmartGene*); (3) organizing information (*see Digitech*; *see also Cyberfone Sys., LLC v. CNN Interactive Grp.*, 558 F. Appx. 988 (Fed. Cir. 2014); *Content Extraction*, 776 F.3d at 1358–59; and (4) mathematical concepts such as mathematical algorithms, mathematical relationships, mathematical formulas and calculations (*see Gottschalk v. Benson*, 409 U.S. 63 (1972); *Parker v. Flook*, 437 U.S. 584 (1978); and *Diamond v. Diehr*, 450 U.S. 175 (1981)).

Similarly, Appellants' argument that the rejected claims require more than simply retrieving and combining data does not address the Examiner's specific reasoning and does not persuade us of Examiner error. App. Br. 22, 23 (citing *Research Corp. Techs., Inc., v. Microsoft Corp.*, 627 F.3d 859,

868–869 (2010)). This argument is unpersuasive because it is conclusory and unsupported by specific analysis of the technology in these cases and any persuasive evidence or argument concerning any similarities of such technology with the subject matter of claim 1. Appellants argue claim 18 is directed to a system that "collects activity descriptions from multiple users to identify and detect a user's activity," but does not explain how such collection of activity description is based on improvements to computer technology, rather than the mathematical algorithms to determine "an activity model" based on "activity description." App. Br. 22–24.

Because Appellants have not persuaded us the Examiner erred, we sustain the Examiner's rejection of claims 1–27 under 35 U.S.C. § 101.

Rejection Under 35 U.S.C. § 103

Independent Claim 1

Appellants argue the Examiner has failed to specifically identify any disclosure in the cited references that would teach or suggest all the recited features in claim 1. App. Br. 21–40; *see also* Reply Br. 15–21. Appellants specifically argue the deficiencies related to the user activity, computing a score, and generating an activity model, the Examiner identified in Feinsmith are such that modifying the reference teachings with Cohen, Kargupta, and Chung would not have resulted in in the claimed subject matter. App. Br. 28–32. With respect to Cohen, Appellants contend the cited portion describes how a user or administrator defines tasks rather than the claimed identifying user activity based on activity description and features. App. Br. 32–33 (citing Cohen Abstract, ¶¶ 9, 66, 222–227, and Fig. 4). Regarding Kargupta, Appellants assert the reference relates to

privacy-preserving algorithms, and not the recited computing a score based on historical correlation of user activities. App. Br. 34–35 (citing Kargupta Abstract, ¶¶ 182, 195). Appellants further argue Chung's system generates the weight parameters related to user behavior rather than the claimed historical correlation. App. Br. 35–37 (citing Chung ¶ 125).

Appellants' contentions do not persuade us of Examiner error because Appellants' arguments do not address the Examiner's specific findings. First, the Examiner finds the broadest reasonable interpretation of "identifying a user activity" does not necessarily require that an activity is performed by a user or a real time detection of such activity is made. Ans. 6–7. Second, we agree with the Examiner that nonobviousness cannot be established by attacking the references individually when the rejection is predicated upon a combination of prior art disclosures. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981); *see also In re Merck & Co. Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). We agree with and adopt the Examiner's findings related to each reference and that the combination of Cohen, Kargupta, and Chung with Feinsmith teaches or suggests the disputed limitations. *See* Ans. 7–10.

Appellants next contend that the proposed combination would change the principle of operation of Feinsmith. App. Br. 38–39. Appellants specifically argue

> Chung merely discloses generating weight parameters from a
> user data set that correlates event information with past user
> activity. Generating weight parameters from data that
> correlates events with past user activity is not the same as
> weighting a score computed for a respective feature of an
> activity description that is weighted according to a historical
> correlation of the respective feature with respect to a respective

> user activity versus a historical correlation of the respective
> feature with other activities.

App. Br. 38. Appellants assert Chung' system does not "compute a score for a respective feature of an activity description that is weighted according to a historical correlation of the respective feature with respect to a respective user activity versus a historical correlation of the respective feature with other activities" and instead "is limited to compiling past user activity to create a user data set." App. Br. 39.

Regarding the alleged change in the principle of operation of Feinsmith, we also agree with the Examiner's findings and conclusion and adopt them as our own. *See* Ans. 10. As explained by the Examiner, "[u]tilizing additional analysis, calculation and entity information does not in any way disable the principle function of activity management that is performed by Feinsmith" because it would have been obvious to modify Feinsmith "to include the techniques for weighting data using correlations because the combination enables the system to analyze and determine events, features and activities that provide the greatest contribution and thus will most significantly impact the score." *Id.* Furthermore, the skilled artisan is "a person of ordinary creativity, not an automaton," and this is a case in which the skilled artisan would "be able to fit the teachings of multiple patents together like pieces of a puzzle." *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 420, 421 (2007).

For the above-stated reasons, we are not persuaded by Appellants' arguments that the Examiner erred in finding the combination of Feinsmith with Cohen, Kargupta, and Chung teaches or suggests the disputed features of claim 1. Therefore, we sustain the 35 U.S.C. § 103(a) rejection of claim

1, independent claims 10 and 18, and dependent claims 2–4, 7, 11–17, and 19–27, which are argued based on the same reasons stated in arguing the patentability of claim 1. *See* App. Br. 40.

Dependent Claims 5, 6, 8, and 9

Claim 5 depends from dependent claim 4, which depends from claim 1, and requires "detecting an activity instance based on a personal viewpoint; and detecting an activity type based on a group viewpoint." App. Br. 53, Claims App. Claims 19 and 23 require similar features related to the first and second cameras. Appellants argue the patentability of claim 5 by alleging Bhaskaran fails to teach or suggest the disputed feature because the reference is concerned with group risk ranking to be used to rate risk of activities of the user. App. Br. 41.

The Examiner has presented detailed findings with respect to the applied prior art references, including "Feinsmith teaches a collection of activity descriptions for a particular user's viewpoint of the activities but does not explicitly recite a group viewpoint" and that "Bhaskaran teaches in at least [0013, 0032, 0053-0054, and 0067] a group risk ranking profile, which is considered a viewpoint of the risk for a group because it identifies a type of activity according to one or more group profiles." Ans. 11. Similar to our discussion of Claim 1 above, we also agree with the Examiner's findings regarding the teachings of Bhaskaran and the stated rationale that it would have been obvious to one of ordinary skill in the art to further improve the user activity description by including data from multiple users and group viewpoints in order to reduce risk. *See id.*

Claim 6 depends from independent claim 1 and requires "receiving a feature-evaluation from a user, wherein the feature-evaluation indicates an activity feature to add to, remove form, or rank within the collection of activity descriptions" and "updating the collection of activity descriptions based on the received feature-evaluation." App. Br. 54, Claims App. Appellants contend the patentability of claim 6 based on arguments similar to those presented for claim 1 regarding the teachings of Cohen. App. Br. 42–45. Similar to our discussion of Cohen above, we also agree with the Examiner's findings that

> Cohen teaches receiving an analysis of user and task associated steps. In at least [0038-0039, 0065-0069, 0251-0253] and at least Table 2 Cohen describes a task analysis that describes analyzing tasks and activities and the ability to order task paths in terms of dominance. Ordering tasks based on dominance is considered a ranking since it places the tasks in a particular sequence based on a particular value, such as dominance. The steps of the task are interpreted as the features of a task or activity because they represent actions associated with the task or activity and thus meet the broadest reasonable interpretation of the claim.

Ans. 12. We also agree with the Examiner's stated reason for modifying Feinsmith as stated below:

> Therefore, it would be obvious to modify the ability to input data indicates the ability to add, remove or rank descriptions and update a collection to include the techniques for receiving such information from a user from an analysis because by combining the evaluation of up to date activity data the combination enables a more accurate analysis that improves the effectiveness of the business by measuring how efficiently users accomplish their goals (Cohen [0004 and 0009]).

Id. We understand the Examiner's position to be based on combining Cohen's ordering tasks based on dominance as an action associated with the

task or activity which would be included in the collecting system of Feinsmith, rather than bodily incorporation of such, as argued by Appellants. *See* App. Br. 44.

Regarding claims 8 and 9, Appellants contend the cited portions of Cohen do not teach or suggest the claim limitations related to weighted scores or dominant user activity, as recited in claims 8 and 9 respectively. *See* App. Br. 45–49. For the same reasons stated for claim 1 and based on the Examiner's findings and conclusion (*see* Ans. 12–16), which we adopt as our own, we are unpersuaded of Examiner error.

For the above-stated reasons, we are not persuaded by Appellants' arguments that the Examiner erred in finding the disclosures of Bhaskaran and Cohen, in combination with the other applied references, teach or suggest the disputed features of claims 5, 6, 8, and 9. Therefore, we sustain the 35 U.S.C. § 103(a) rejection of claims 5, 6, 8, and 9.

CONCLUSION

The Examiner did not err in rejecting claims 1–27 under 35 U.S.C. § 101.

The Examiner did not err in rejecting claims 1–27 under 35 U.S.C. § 103.

DECISION

We affirm the Examiner's decision to reject claims 1–27.

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