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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JEROME SHIMIZU and MARC RYAN

Appeal 2017-002126
Application 13/672,384
Technology Center 3600

Before JEAN R. HOMERE, BRADLEY W. BAUMEISTER,
and PHILLIP A. BENNETT, *Administrative Patent Judges*.

HOMERE, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from a Final Rejection of claims 1–27, which constitute all claims pending in this application.¹ App.

Br. 2. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ Appellants identify InsightExpress, LLC, as the real party in interest. App. Br. 1.

Introduction

According to Appellants, the claimed subject matter relates to a method and system for assessing the effectiveness of a marketing effort by comparing its effects on a group of individuals exposed to the marketing effort versus a non-exposed group. Spec. ¶¶ 2, 13, and Fig. 1. In particular, a computer maps to an N-dimensional space relevant attributes of each group member of a population including a “twin mapping” identifying non-exposed candidates along with associated candidates exposed to the marketing effort for which testing is being performed. *Id.* ¶ 14. Upon finding an unexposed twin, which is the closest in characteristics to an exposed candidate, the post exposure behavior of the two candidates is compared to determine the effectiveness of the marketing effort. *Id.*

Representative Claim

Independent claim 1 is representative and reads as follows:

Claim 1. A method comprising:

generating space-location data that indicates a space-location for each member of a population, the population including a plurality of members, in an N-Dimensional Space defined by attributes of the plurality of members;

after the space-location data has been generated, performing the steps of

detecting that a first member of a population has been exposed to marketing efforts whose effectiveness is subject to a test;

in response to detecting that the first member has been exposed to the marketing efforts, performing the steps of

adding the first member to a test group of the test;

adding an unexposed twin of the first member to a control group for the test; and

comparing post-exposure behavior information of the test group with behavior information of the control group;

wherein the unexposed twin of the first member is a second member of the population that (a) was not exposed to the marketing efforts, and (b) is selected as the unexposed twin of the first member based on how close the space-location of the second member is to the space-location of the first member;

wherein the method is performed by one or more computing devices.

Prior Art Relied Upon

Lazarus et al. ("Lazarus")	US 2005/0159996 A1	July 21, 2005
Briggs	US 2006/0041480 A1	Feb. 23, 2006
Sattley et al. ("Sattley")	US 2007/0260519 A1	Nov. 8, 2007

Rejections on Appeal

Claims 1–27 stand rejected under 35 U.S.C. § 101 as being directed to patent ineligible material. Final Act. 3–5.

Claims 1–8, 10–21, and 23–27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Briggs and Lazarus. *Id.* at 6–16.

Claims 9 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Briggs, Lazarus, and Sattley. *Id.* at 17–18.

ANALYSIS²

Patent Ineligibility Rejection

The U.S. Supreme Court provides a two-step test for determining whether a claim is directed to patent-eligible subject matter under 35 U.S.C. § 101. *Alice Corp. v. CLS Bank Int'l*, 134 S.Ct. 2347, 2354 (2014). In the first step, we determine whether the claims are directed to one or more judicial exceptions (i.e., law of nature, natural phenomenon, and abstract ideas) to the four statutory categories of invention (i.e., process, machine, manufacture, and composition of matter). *Id.* at 2355 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 US 66, 76–78 (2012)) (“*Mayo*”). 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.” *Id.* (citing *Mayo*, 566 US 80). 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.* (citing *Mayo*, 566 US at 72–73).

Mayo Analysis, step I (Abstract Idea)

We consider Appellants’ arguments *seriatim*, as they are presented in the Appeal Brief, pages 6–28, and the Reply Brief, pages 2–17.

² Rather than reiterate all the arguments of Appellants and all the Examiner’s findings and conclusions, we refer to the Appeal Brief (filed March 24, 2016) (“App. Br.”); the Reply Brief (filed November 18, 2016) (“Reply Br.”); and the Answer (mailed September 22, 2016) (“Ans.”); and the Final Office Action (mailed November 19, 2015) (“Final Act.”) for the respective details.

Appellants argue the Examiner erred in rejecting claims 1–27 as being directed to the abstract idea of “optimizing targeted advertising on websites” because the claims recite no such optimization. Reply Br. 3; *see also* App. Br. 6–8. According to Appellants, although this erroneous characterization of the claimed subject matter may pertain to a particular use of the invention, it does not constitute the central theme of the claimed subject matter. App. Br. 7–8. Likewise, Appellants argue that the Examiner’s alternative characterization of the claimed subject matter as being directed to “measuring marketing efforts” is also improper because the claims recite no measurement of marketing efforts. *Id.* at 8–9. Further, Appellants argue that because the alternative characterization of the claims is newly made, Appellants have not been given a fair opportunity to respond. *Id.* at 9. Furthermore, Appellants argue that because the Examiner has failed to explain why the asserted alternative characterization of the claim constitutes an abstract idea, the Examiner’s rejection is not supported by any court decision where a court has found “measuring marketing efforts” to be an abstract idea. *Id.* at 9–10.

These arguments are not persuasive. At the outset, we note the Examiner initially concluded that the claims are directed to the abstract idea of “optimizing targeted advertising on websites,” a fundamental economic practice. Final Act. 3. Then, following Appellants’ after-final response, the Examiner asserted that irrespective of whether the claims are directed to “measuring marketing efforts” (as alleged by Appellants) or “optimizing targeted advertisements on websites” (as alleged by the Examiner), either characterization of the claimed subject matter pertains to the fundamental economic practice of marketing/advertising. Advisory Act. 1.

We further note Appellants' summary of the claimed subject matter indicates that the claims are directed to "determining the effectiveness of marketing efforts." App. Br. 2. Although Appellants' characterization of the claim language differs somewhat from Examiner's, one is a subset of the other, as acknowledged by Appellants. *Id.* at 7–8. More importantly, Appellants do not dispute the Examiner's conclusion that either characterization of the claimed subject matter pertains to the fundamental economic practice of marketing of which Appellants have been informed.³

As noted by Appellants, the claimed subject matter as whole is directed a method and system for assessing the effectiveness of marketing efforts. App. Br. 2. Our reviewing court has consistently held that such marketing enhancement methods are mere characterizations of human activities within the stream of commerce, which are not patent eligible. *See, e.g., Elec. Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (Claims directed to collection, manipulation, and display of data.); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015) (Customizing information and presenting it to users based on particular characteristics.). That these claims are directed to an abstract idea is confirmed by the fact that the claimed comparison of the behavior of surveyed individuals exposed to the marketing effort versus the behavior of non-exposed individuals is of the type that could be performed

³ Appellants' concern about whether the Examiner has newly characterized the claimed invention as being directed to an alternative abstract idea of "measuring marketing efforts" is not an appealable matter under our jurisdiction. Appellants should have raised this concern in a petition to the Director of the Technology Center to which the Examiner is assigned. *See* 37 C.F.R. § 1.181.

manually. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) (“[A] method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under [section] 101.”). Prior to the Internet, such activities were widely practiced, and became computerized with the assistance of human administrators to facilitate marketing optimization. *See OIP Technologies, Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1364 (Fed. Cir. 2015).

Mayo Analysis, step II (Significantly more than Abstract Idea)

Next, Appellants argue that the Examiner has not considered whether all elements of the claims amount to significantly more than the alleged abstract idea. App. Br. 10–11. According to Appellants, the Examiner’s assertion that the claims merely recite activities of “normal computer operation . . . is not an interpretation supported by any applicable authority.” App. Br. 11 (emphasis omitted). Appellants submit that patent ineligibility instead requires showing “the claim must as a whole amount to nothing more than generic computer functions merely used to implement an abstract idea.” *Id.* Further, Appellants argue claim 1 recites features such as: (1) generating space location data; (2) adding members to a test group/control group; and (3) comparing behavior of members based on the space location. *Id.* at 15. Appellants argue that these features are meaningful and relate to a particular practical application. *Id.* at 12–15.

According to Appellants, although these features may use a computer’s inherent capabilities, using a computer alone is insufficient to negate patentability. *Id.* at 13. Appellants argue that those elements are not well-understood, routine or conventional in the field as they confine the claims to a particular application. *Id.* at 15. Thus, Appellants submit

although those features make use of a computer’s inherent capabilities, they cannot be characterized as generic computer functions. *Id.*; *see also* Reply Br. 9–12.

These arguments are not persuasive. We agree with the Examiner that the cited claim elements, as a whole, do not amount to significantly more than the abstract idea of assessing the effectiveness of a marketing effort by comparing its effects on exposed individuals versus unexposed individuals. Ans. 4. In particular, we agree with the Examiner that the functions of comparing survey results obtained from the behavior of individuals in test/control groups are conventional, well-understood, and do not go beyond those of a general purpose computer for merely accessing, manipulating, and displaying data. *Id.* Therefore, they do not add any meaningful limitations beyond generally linking the abstract idea to the particular technological environment. *Id.*

Appellants also argue that the Examiner’s finding “additional elements of the claims are ‘generic computer structure that serve[] to perform generic computer functions’ that ‘are well-understood, routine and conventional activities previously known to the pertinent industry’” is antithetical to the conclusion that the claims are not obvious over the prior art of record. App. Br. 11–12, and 20–21. This argument is unpersuasive.

Appellants are reminded that “the ‘inventive concept’ [under step two of the *Mayo/Alice* test] cannot be the abstract idea itself” and “*Berkheimer* . . . leave[s] untouched the numerous cases from this court which have held claims ineligible because the only alleged ‘inventive concept’ is the abstract idea.” *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1374 (Fed. Cir. 2018) (Moore, J., concurring). “It has been clear since *Alice* that a claimed invention’s use

of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention ‘significantly more’ than that ineligible concept.” *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018).

We, therefore, agree with the Examiner that the computer functions recited in the claims were in fact generic, and the Examiner’s conclusion is supported by numerous case law establishing that using a generic computer to expedite and automate processes traditionally performed manually or that are otherwise abstract is a well-understood, routine, and conventional use of such computers. Ans. 4; *see also, e.g., Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1321 (Fed. Cir. 2016) (Utilizing an intermediary computer to forward information.); *Bancorp Servs., L.L.C. v. Sun Life Assurance Co.*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) (“The computer required by some of Bancorp’s claims is employed only for its most basic function, the performance of repetitive calculations, and as such does not impose meaningful limits on the scope of those claims.”).

Appellants are further reminded that “relying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible.” *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015) (citing *Alice Corp.*, 134 S. Ct. at 2359 (“Use of a computer to create electronic records, track multiple transactions, and issue simultaneous instructions” is not an inventive concept.)). Therefore, Appellants have not established that the functions recited in

claim 1 add any meaningful limitations beyond generally linking the abstract idea to the particular technological environment. *Id.*⁴

Accordingly, we are not persuaded of error in the Examiner’s conclusion that claim 1 is directed to patent-ineligible subject matter.

Regarding claims 2–27, Appellants reiterate substantially the same patent-eligibility arguments of claim 1 discussed above. App. Br. 17–20. We are similarly not persuaded of error in the Examiner’s conclusion that claims 2–27 are directed to patent-ineligible subject matter.

Obviousness Rejections

Appellants argue that the Examiner erred in concluding that the combination of Briggs and Lazarus renders claims 1–8, 10–21, and 23–27 unpatentable. App. Br. 22. In particular, Appellants argue the cited references do not teach or suggest “generating space-location data” while “in a N-Dimensional space” to select “based on how close the space-location of the second member is to the space-location of the first member.” *Id.*

⁴ Considerations for determining whether a claim with additional elements amounts to “significantly more” than the judicial exception itself include improvements to another technology or technical field (*Alice Corp.*, 134 S.Ct. at 2359–60 (citing *Diehr*, 450 U.S. at 177–78)); adding a specific limitation other than what is well-understood, routine, and conventional in the field, or adding unconventional steps that confine the claim to a particular useful application (*Mayo*, 566 U.S. at 82, 87); or other meaningful limitations beyond generally linking the use of the judicial exception to a particular technological environment (*Alice Corp.*, 134 S.Ct. at 2360). *See, e.g., Intellectual Ventures I LLC*, 792 F.3d at 1370 (“[M]erely adding computer functionality to increase the speed or efficiency of the process does not confer patent eligibility on an otherwise abstract idea.”).

According to Appellants, Lazarus’s disclosure of using matrices to determine similarity between merchants based on transaction data by counting the “number of times the merchants co-occur with one another in the transaction data” does not teach the disputed limitations. *Id.* at 22–23; *see also* Reply Br. 15 (citing Lazarus ¶¶ 35, 182). Further, Appellants argue Briggs’s disclosure of “simultaneously determining a control group and an exposed group, and simultaneously transmitting advertisements to them by holding them out” does not teach the disputed limitations. *Id.* at 24 (citing Lazarus ¶ 58).

Appellants’ arguments are persuasive. Briggs discloses a system for determining advertising effectiveness of cross media campaigns on an exposed group/non-exposed group. Briggs ¶ 51. Briggs discloses using a large online campaign and holds out a control group, which receives control advertising so as to measure reported sales and the impact of the advertising in comparison to sale results with no market activity. Briggs ¶¶ 13, 55, and 58. Further, Lazarus discloses a predictive modeling of a consumer or merchant financial behavior by monitoring merchant vectors in a vector space thereby tracking the frequency of occurrence of the merchant’s activities logged in the vector space of transactions. Lazarus ¶¶ 35, 90, and 91. Although we agree with the Examiner that the cited portions of Briggs teach comparing the effects of a marketing effort on an exposed group versus an unexposed group, Lazarus’s teachings do not cure the admitted deficiencies of Briggs. As persuasively argued by Appellants, Lazarus’s teachings relate to tracking the financial activities of a merchant/customer in a vector space based on transaction data by matching unit vectors for each

defined vector name string corresponding to a controlled entity. App.
Br. 23.

Although Lazarus's disclosure of matching merchant/customer names teaches identifying identical strings in the vector space thereby determining that the vector strings for two particular merchants are syntactically close, Lazarus does not teach the *required physical closeness* between the candidates. In other words, Lazarus teaches determining whether the names of two merchants are the same (syntactically close), as opposed to whether the two merchants are physically close to each other. At best, the proposed combination would result in comparing the effectiveness of a marketing effort on an exposed group versus a non-exposed group in a vector space by determining the frequency of activities of each group in relation to the marketed product. However, the proposed combination of references is silent as to whether candidates in the exposed/non-exposed groups are close in space location to one another.

Because Appellants have shown at least one reversible error in the Examiner's rejection, we need not reach Appellants' remaining arguments.

Accordingly, we are persuaded or error in the Examiner's anticipation rejection of claim 1.

Because claims 2–27 recite the disputed limitations of claim 1 discussed above, and Sattley relied upon by the Examiner does not cure the noted deficiencies in Briggs and Lazarus, we do not sustain the Examiner's obviousness of the cited claims for the same reason set forth above.

DECISION

For the above reasons, affirm the patent ineligibility rejection of claims 1–27. However, we reverse the obviousness rejections of claims 1–27 as set forth above.

Because we have affirmed at least one ground of rejection with respect to each claim on appeal, the Examiner’s decision is affirmed. *See* 37 C.F.R. § 41.50(a)(1).

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

AFFIRMED