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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ZACHARY MASON[1]

Appeal 2016-004127
Application 11/370,679
Technology Center 2600

Before CARL W. WHITEHEAD JR, MICHAEL J. STRAUSS and JON M. JURGOVAN, *Administrative Patent Judges*.

WHITEHEAD JR., *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant is appealing the Final Rejection of claims 28–44 under 35 U.S.C. § 134(a). Appeal Brief 3. We have jurisdiction under 35 U.S.C. § 6(b) (2012).

We affirm.

Introduction

The invention is directed to "computing a predictive measure for an advertising effectiveness metric for the one or more advertising keywords based at least in part on one or more feature values of the keywords employing a prediction function of the effectiveness metric." Abstract.

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[1] According to Appellant, the real party in interest is Adobe Systems Incorporated.

Illustrative Claim (disputed limitations emphasized)

28. A method comprising:

computing, by a computing device, metrics of one or more keywords based on empirically-gathered data for the one or more keywords;

adding the metrics to feature-specific metrics for at least two features of a keyword, each of the features comprising a different attribute or aspect descriptive of the keyword or usage of the keyword, the keyword being different from the one or more keywords;

computing, by a computing device, a predictive measure for an advertising effectiveness for the keyword based at least in part on the feature-specific metrics; and

providing the keyword as an advertising keyword suggestion based on the predictive measure for the advertising effectiveness metric.

Rejections on Appeal

Claims 28–44 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter (abstract idea). Final Rejection 2.

Claims 28–31 and 33–38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Flake (U.S. Patent Application Publication 2005/0021441 A1; published January 27, 2005) and Veach (U.S. Patent 7,818,207 B1; issued October 19, 2010). Final Rejection 3–5.

Claims 39–44 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Flake, Veach and Turney (U.S. Patent 6,470,307 B1; issued October 22, 2002). Final Rejection 5–6.

Claim 32 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Flake, Veach and Calabria (U.S. Patent Application Publication 2005/0137939 A1; published June 23, 2005). Final Rejection 6–7.

ANALYSIS

Rather than reiterate the arguments of Appellant and the Examiner, we refer to the Appeal Brief (filed September 11, 2015), the Reply Brief (filed March 16, 2016), the Answer (mailed February 12, 2016) and the Final Rejection (mailed May 4, 2015) for the respective details.

35 U.S.C. § 101 Rejection

Appellant argues the 35 U.S.C. § 101 rejection of claims 28–44 is erroneous because "(1) the Office Action fails to establish a *prima facie* of subject matter ineligibility; (2) the claims are not directed to an abstract idea; and (3) even if we assume *arguendo* that the claims are directed to an abstract idea, the claims amount to significantly more than the abstract idea." Appeal Brief 5.

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.[2] 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.* (citations omitted) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1296–97 (2012)) ("*Mayo*"). Prior cases are replete with decisions finding software that organizes and manipulates data, similar to that recited by the present claims, to be directed to ineligible abstract ideas. *See, e.g., Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1327 (Fed. Cir. 2017) ("creating an index and using that index to search for and retrieve

[2] *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 124 S. Ct. 2347, 2354 (2014).

data"); *Elec. Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (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); *Content Extraction and Transmission LLC v. Wells Fargo Bank, National Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) ("collecting data, . . . recognizing certain data within the collected data set, and . . . storing that recognized data in a memory"). 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*, 132 S. Ct. at 1297–98). 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*, 132 S. Ct. at 1294).

Appellant contends the Examiner failed to establish a prima facie case of subject matter ineligibility because "the Examiner fails to provide any reasoned rationale identifying why '[s]toring keyword features (attributes), predicting advertising effectiveness' are considered fundamental economic practices." Appeal Brief 6. We disagree. We agree with the Examiner's conclusion that "Storing keyword features (attributes), predicting advertising effectiveness are fundamental economic practices and thus, the claims include an abstract idea." Final Rejection 2. One of the fundamental purposes of advertising is to bring notice or attention to one's product or service in order in obtain financial gains when the attention results in a demand for the product/service by the consumer. Determining the

effectiveness of advertising allows modification of advertising to maximize product/service exposure while controlling advertising expenditures and determination of a pricing point that results in profitability. Consequently, we find the Examiner established a *prima facie* case of subject matter ineligibility and that the claims are directed to an abstract idea.

Appellant contends the claims recite additional features that are significantly more that an abstract idea because the claimed "features are related to computing metrics from empirically-gathered data, adding the metrics to feature-specific metrics, computing a predictive measure, using a machine learning tool to generate a prediction function, etc., According to Appellant, these features are directed to more than simply applying the abstract idea of 'keyword suggestion' to a computer." Appeal Brief 9. Appellant further contends:

> Like *DDR Holdings and Klaustech,* the claimed invention of the present application involves a technology centric problem and solution. The claimed solution is necessarily rooted in computer technology (e.g., using metrics from other keywords) in order to overcome a problem specifically arising in the realm of computer networks (a keyword not having sufficient metrics associated with it). The problem solved solely arises in the computing context in which the keywords and associated metrics are found. The claimed solution also improves the operations of a search engine (e.g., an Internet-based search engine) by using known metrics of keywords to predict an effectiveness measure of a keyword for which such metrics are not known, and using this effectiveness measure as one of the filters of the search engine to suggest keywords.

Appeal Brief 10–11.

We disagree with Appellant's contentions and agree with the Examiner's finding that:

> The claims do not include limitations that are "significantly more" than the abstract idea because the claims do not include an improvement to another technology or technical field, an improvement to the functioning of the computer itself, or meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment. Note, that the limitations, in the instant claims, are done by the generically recited computing device. The limitations are merely instructions to implement the abstract idea on a computer and require no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry.

Final Rejection 2.

We find that the *DDR Holdings* and *Klaustech* precedent is not applicable here because the claimed subject matter is the performance of a business practice known from the pre-Internet era, and it is not necessarily rooted in computer technology. The claimed subject matter pertains to the well-known practice of determining the effectiveness of advertising by gathering data and predicting the effectiveness of future advertising based upon the gathered data. This case has greater similarity to *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709 (Fed. Cir. 2014). The claims there were directed to the abstract idea of showing an advertisement before delivering free content. *Id.* at 715. Our reviewing court determined that the claims at issue were devoid of a concrete or tangible application, and lacking particularity. *Id*. The claims on appeal here have similar issues. As mentioned, several of the recited steps do not recite any technological element that performs them. Like *Ultramercial*, many of the steps of the recited claims are lacking a concrete and tangible application recited with particularity. Consequently, we sustain the 35 U.S.C. § 101 rejection of claims 28–44.

35 U.S.C. § 103 Rejection

Appellant argues the obviousness rejection of independent claims 28, 36 and 37 is erroneous because Veach fails to address the deficiency of Flake. Appeal Brief 11. The Examiner finds:

> Veach teaches predicting value when no historical information or limited historical information of an ad of interest or keyword is available (see col. 6 line 53-65) . . . if click per impression of similar ads (ads with same or similar keywords) is available. It would have been obvious to one of ordinary skill in the art at the time of the invention to implement Veach's prediction using similar ad or keyword in the ad, in Flakes keyword suggestion based on predictive measure if no data is available for the keyword, as taught in Veach.

Final Rejection 4.

Appellant contends:

> Veach discloses estimating a cost for an ad based on metrics of keywords (e.g., clicks per impression). The keywords could be of other ads. However, Veach does not disclose combining metrics of the other keywords to create metrics of a different keyword. Instead, Veach discloses using metrics of keywords of another ad to estimate the cost for a particular ad. Thus, Veach does not cure the deficiency of Flake.

Appeal Brief 12.

We do not find Appellant's arguments persuasive because they are not commensurate with the scope of the claims. The claimed metrics or quantifiable measures are based upon empirically-gathered data and Veach discloses determining metrics based upon empirically-gathered data. *See* Veach column 6, lines 53–65. It is immaterial if Veach gathers data based upon other ads as Appellant argues because the claims do not limit the data gathering to a particular parameter or ad. Subsequently, we agree with the Examiner's findings and sustain the obviousness rejection of independent

claims 28, 36 and 37. Appellant argues the obviousness rejections of dependent claims 29–35 and 38, 40, 43 and 44 are erroneous because neither Turney and/or Calabria address the deficiency of the Flake/Veach combination. Appeal Brief 13. We do not find Appellant's argument persuasive because we did not find the Flake/Veach combination to be deficient.

Appellant contends:

> Beyond using a machine learning algorithm to extract words from a document, Turney does not describe using the machine learning algorithm to compute metrics of features of keywords. Thus, Turney fails to at least disclose "generating a prediction function by employing a machine learning tool configured to process the training set of keywords and the metrics," "inputting features of the keyword to the prediction function," and "storing an output of the prediction function based on the inputted features as the feature-specific metrics" as recited in claim 41.

Appeal Brief 13.

Appellant further argues "the combination merely discloses using machine learning to select concepts (as in Flake) or keywords that can make up a concept (as in the combination of Flake and Turney). The combination does not disclose a training set that includes metrics of keywords." Reply Brief 13. The Examiner's findings do not address claim 41 with any specificity instead the Examiner provides generic statements about the combination of Flake and Turney in regard to claims 39–41. *See* Final Rejection 5. We find Appellant's arguments persuasive and reverse the Examiner's obviousness rejection of both dependent claim 41, as well as, dependent claim 42 that is dependent upon claim 41.

DECISION

The Examiner's non-statutory rejection of claims 28–44 is affirmed.

The Examiner's obviousness rejections of claims 28–40, 43 and 44 are affirmed.

The Examiner's obviousness rejection of claims 41 and 42 is reversed.

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). *See* 37 C.F.R. § 1.136(a)(1)(v).

AFFIRMED