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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GAUTHAM SASTRI and LIONEL ALBERTI

Appeal 2017-004608
Application 13/427,833[1]
Technology Center 3600

Before MEREDITH C. PETRAVICK, MICHAEL C. ASTORINO, and ROBERT J. SILVERMAN, *Administrative Patent Judges*.

SILVERMAN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

The Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 1–6 and 8–15. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] The Appellants identify iSentium Technologies, Inc. as the real party in interest. Appeal Br. 1.

ILLUSTRATIVE CLAIM

1. A computer-implemented method for finding patterns in a target real-valued time series by utilizing sentiment and frequency derived from a stream of social media messages, wherein the target represents a quantifiable property of an asset being tracked, comprising:

ingesting a stream of social media messages, filtering the stream of social media messages to eliminate expressions not part of current language usage, and tagging the stream of social media messages with part-of-speech tags;

identifying a target, which is a sampled real-valued time series based upon the stream of social media messages;

generating in real-time, through the application of Natural Language Processing, a sentiment time series, S_s, based upon the stream of social media messages relating to the asset, wherein the sentiment time series is a pulsated time series;

generating in real-time a frequency time series, S_f, derived from the sentiment time series and a positive number w representing a time called window size, the frequency time series relating to the asset, wherein the frequency time series is a pulsated time series;

determining, in real-time, a pattern based upon the sentiment time series and the frequency time series; and graphically depicting sentiment and frequency as they relate to the asset on a monitor.

REJECTION

Claims 1–6 and 8–15 are rejected under 35 U.S.C. § 101 as ineligible subject matter.

FINDINGS OF FACT

The findings of fact relied upon, which are supported by a preponderance of the evidence, appear in the following Analysis.

ANALYSIS

Laws of nature, natural phenomena, and abstract ideas are deemed ineligible for patenting, because they are regarded as the basic tools of scientific and technological work, such that their inclusion within the domain of patent protection would risk inhibiting future innovation premised upon them. *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013). Of course, "[a]t some level, 'all inventions . . . embody, use, reflect, rest upon, or apply'" these basic tools of scientific and technological work. *Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (citation omitted). Accordingly, ascertaining ineligible subject matter involves a two-step framework for "distinguish[ing] between patents that claim the buildin[g] block[s] of human ingenuity and those that integrate the building blocks into something more, . . . thereby transform[ing] them into a patent-eligible invention." *Id.* (internal quotation marks and citations omitted). The first step determines whether the claim is directed to judicially excluded subject matter (such as a so-called "abstract idea"); the second step determines whether there are any "additional elements" recited in the claim that (either individually or as an "ordered combination") amount to "significantly more" than the identified judicially excepted subject matter itself. *Id.* at 2355.

In regard to the first step of the *Alice* framework, the Final Office Action states that "[c]laims 1–6 and 8–15 are directed to the abstract idea of organizing information through mathematical correlations." Final Action 4.

In response, the Appellants argue that the claimed subject matter "amounts to far more than simple mathematical correlations." Appeal Br. 9. The Appellants contend that the claims are "directed to a method for finding

patterns in a target real-valued time series by utilizing sentiment and frequency derived from a stream of social media messages," which is not an abstract idea, but is "a very specific method addressing a real world problem." *Id.* at 8.

Rather than rebutting the Appellants' formulation of the claimed subject matter, the Examiner adopts it. *See* Answer 4 ("The claims are directed to an abstract idea of finding patterns in a target real-valued time series by utilizing sentiment and frequency derived from a stream of social media messages.") The Examiner determines that the Appellants' characterization of the claims is an abstract idea, because "[t]he concept described in claim 1 is not meaningfully different than those concepts found by the courts to be abstract ideas." *Id.* In particular, the Examiner (*id.*) cites, *Content Extraction & Transmission LLC v. Wells Fargo Bank, National Association*, 776 F.3d 1343 (Fed. Cir. 2014), *Digitech Image Technologies, Inc. v. Electronics for Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014), and *SmartGene, Inc. v. Advanced Biological Laboratories, SA*, 555 F. App'x 950 (Fed. Cir. 2014) (nonprecedential). Of these cases, *Digitech* bears particular relevance to the instant Appeal, because of the Federal Circuit's determination that "[w]ithout additional limitations, a process that employs mathematical algorithms to manipulate existing information to generate additional information is not patent eligible." *Digitech*, 758 F.3d at 1351.

Responding to the Examiner's Answer, the Appellants, in the Reply Brief, argue:

> The claimed invention constitutes a very specific method addressing a real world problem regarding how the vast amounts of social media data generated in the Internet may be used to

> advance various social and business goals. The claimed method involves far more than organizing information and associating mathematical relationships or formulas with the information. Rather, the claimed method applies a system of rules to social media messages for the purpose of identifying patterns. The method steps employed in accordance with the claimed invention are not generic, easily categorized steps but involved highly specific steps applied to a high specific data set.

Reply Br. 2–3.

Yet, the Appellants' assertions, regarding the claims' alleged specificity and application to real-world problems, do not speak to the issue that the Examiner raised — i.e., that the focus of the claimed subject matter is the mathematical analysis of data, such that the claims are directed to an ineligible concept. *See Parker v. Flook,* 437 U.S. 584, 595 (1978) ("If a claim is directed essentially to a method of calculating, using a mathematical formula, even if the solution is for a specific purpose, the claimed method is nonstatutory.") Therefore, the Appellants do not persuade us of error in the Examiner's application of the first step of the *Alice* framework.

With regard to the second *Alice* step, the Appeal Brief asserts that the claimed subject matter is "a complex method" having steps that "go well beyond an abstract idea." Appeal Br. 9. In particular, the Appellants argue that the steps of "filtering" the social media messages and "generating" sentiment and frequency time series in real time for graphical depiction amount to significantly more than the identified abstract idea, because they "provid[e] a solution to a problem confronting the present world, that is, how to make use of the vast amounts of available data in a concrete, effective and tangible manner." *Id. See also* Reply Br. 3–4.

Yet, under the second *Alice* step, patent eligibility turns upon whether any claim elements (or any combination thereof) whether those elements "involve more than [the] performance of 'well-understood, routine, [and] conventional activities previously known to the industry.'" *Content Extraction*, 776 F.3d at 1347–48 (quoting *Alice,* 134 S. Ct. at 2359). Because the Appellants, instead, base their argument upon the "filtering" and "generating" steps allegedly "providing a solution to a problem confronting the present world" (Appeal Br. 9), this argument is not persuasive of error in the Examiner's application of the second *Alice* step.

The Appellants also argue, in an alternative articulation of the second *Alice* step, that the claimed subject matter overcomes a problem specifically arising in the realm of computer networks. *See* Reply Br. 4 (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014)). The Appellants support this argument, by stating that "social media is an integral part of our current computer world," "[t]he problems associated with making use of the data generated by social media are real and important, and the nature of social media dictates that these problems are intimately associated with, and arise in, the realm of computer networks." *Id.*

Critically, however, unlike the circumstances of *DDR Holdings*, the Appellants do not point to any aspect of the claimed subject matter that, "overrides the routine and conventional sequence of events" provided by the computer technology employed therein. *See DDR Holdings*, 773 F.3d at 1258. Accordingly, this argument is also unpersuasive.

In view of the foregoing discussion, we sustain the rejection of independent claim 1 and dependent claims 2–6 and 8–15 (for which the Appellants present no separate argument) under 35 U.S.C. § 101.

DECISION

We AFFIRM the Examiner's decision rejecting claims 1–6 and 8–15 are rejected under 35 U.S.C. § 101.

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