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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PAUL DEANE and DERRICK HIGGINS

Appeal 2017-000350
Application 10/822,426[1]
Technology Center 3700

Before ANTON W. FETTING, MICHAEL C. ASTORINO, and CYNTHIA L. MURPHY, *Administrative Patent Judges*.

ASTORINO, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), the Appellants appeal from the Examiner's decision rejecting claims 7, 10, 12–15, 20–25, 28–30, 33, 35–37, 40–43, 45, 47, 49, 51, 53, 55, 57, 59, and 60. We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We REVERSE.

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[1] According to the Appellants, "[t]he real party in interest is Educational Testing Service of Princeton, New Jersey." Br. 1.

STATEMENT OF THE CASE

Claimed Subject Matter

Claims 7, 10, 20, 21, 22, 35, 40, and 41 are the independent claims on appeal. Claim 7, reproduced below, is illustrative of the subject matter on appeal.

> 7. A computer-implemented method of generating a mathematical word problem assessment item, the method comprising:
>
> receiving one or more word problem parameters from a user who provides input for generation of an assessment item via a graphical user interface, wherein the one or more word problem parameters are descriptive parameters upon which a content of the assessment item is based;
>
> identifying a plurality of number variables based on the one or more word problem parameters;
>
> determining a relationship between a first number variable and a second number variable of the number variables;
>
> generating the assessment item comprising a mathematical word problem having multiple words using a processor including automatically generating a text phrase positioned between a first numerical value corresponding to the first number variable and a second numerical value corresponding to the second number variable based on the determined relationship;
>
> wherein generating the text phrase comprises automatically resolving a context-dependent selection; and
>
> storing the assessment item in a non-transitory computer-readable memory;
>
> wherein generating the text phrase comprises automatically choosing by the processor one or more of word order, word choice, word format, sentence structure, grammar and language of the text phrase based on the determined relationship.

Rejections

Claims 7, 10, 12–15, 20–25, 28–30, 33, 35–37, 40–43, 45, 47, 49, 51, 53, 55, 57, 59, and 60 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more.

ANALYSIS

Under 35 U.S.C. § 101, a patent may be obtained for "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." The Supreme Court has "'long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.'" *Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 588–89 (2013)).

The Supreme Court in *Alice* reiterated the two-step framework, set forth previously in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 77–81 (2012), "for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Alice*, 134 S. Ct. at 2355. The first step in that analysis is to "determine whether the claims at issue are *directed to* one of those patent-ineligible concepts." *Id.* (emphasis added) (citing *Mayo*, 566 U.S. at 79). If so, the second step is to consider the elements of the claims "individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *Id.* (quoting *Mayo*, 566 U.S. at 78–79).

The Examiner determines that the claims are directed to "ideas standing alone" and mathematical algorithms. Ans. 7–13; *see also* Final Act. 6–7, 8. And, the Examiner determines that the claims fail to "include additional elements that are sufficient to amount to significantly more than the judicial exception because the additional elements when considered both individually and as an ordered combination do not amount to significantly more than the abstract idea." Ans. 4; *see* Final Act. 7, 8, 10. The Appellants argue persuasively that the Examiner does not show sufficiently that the claims would not survive the second *Alice* step. Br. 18–21.

The second *Alice* step considers whether the claim limitations "involve more than performance of 'well-understood, routine, [and] conventional activities previously known to the industry.'" *Content Extraction & Transmission LLC. v. Wells Fargo Bank, Nat'l Ass 'n*, 776 F.3d 1343, 1347–48 (Fed. Cir. 2014) (quoting *Alice*, 134 S. Ct. at 2359).

The Appellants argue that limitations from the independent claims are not well-understood, routine, and conventional whereby the claims amount to significantly more than the abstract idea itself. *See* Br. 18–21. For example, the Appellants point out that the independent claims call for one or both of "automatically choosing by the processor one or more of word order, word choice, word format, sentence structure, grammar and language of the text phrase based on a determined relationship between first and second number variables" and "determining language variations including selecting a referent identification type for each of one or more participants based on a determined relationship between a first identity variable and a second identity variable using a data processor." *Id.* at 20–21. The Appellants further argue, "[t]he additional elements are not routine activities specified at

a high level of generality. . . [and] go far beyond mere instructions to apply the alleged abstract idea on a computer. Rather, the additional steps are detailed, meaningful limitations that ensure that the claims amount to significantly more than the alleged abstract idea." *Id.* at 21.

The Examiner broadly addresses computer components listed in the independent claims. *See* Ans. 14–15. However, the Examiner fails to address explicitly the claim limitations identified by the Appellants, and, therefore, does not provide us with sufficient explanation as to why these identified limitations do not create additional claim elements capable of elevating the claimed invention above an abstract idea. Therefore, insofar as the claims are directed to an abstract idea, the Examiner has not adequately established that the independent claims fail to recite additional elements that are "significantly more" than the alleged abstract idea itself.

Thus, we do not sustain the Examiner's rejection of claim 7, 10, 12–15, 20–25, 28–30, 33, 35–37, 40–43, 45, 47, 49, 51, 53, 55, 57, 59, and 60.

DECISION

We REVERSE the Examiner's decision rejecting claims 7, 10, 12–15, 20–25, 28–30, 33, 35–37, 40–43, 45, 47, 49, 51, 53, 55, 57, 59, and 60.

REVERSED