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EXAMINER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JEAN-LUC MEUNIER

Appeal 2017-006549
Application 14/244,385¹
Technology Center 2600

Before MARC S. HOFF, SCOTT B. HOWARD, and ALEX S. YAP,
Administrative Patent Judges.

HOFF, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134 from a Final Rejection of claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Appellant's invention is a method for predicting the translation quality of a document. A plurality of input sentences are translated from a source language to a target language using statistical machine translation. The translation quality of the translated document is predicted based on the translation quality estimate for each of the sentences and on parameters of a

¹ The real party in interest is Xerox Corporation.

model learned using translation quality estimates for sentences of training documents and respective manually-applied translation quality values. *See* Abstract.

Claim 1 is reproduced below:

1. A method for predicting the translation quality of a document comprising:
with a statistical machine translation component, translating a plurality of sentences of an input document from a source language to a target language;
receiving a respective translation quality estimate for each of the plurality of sentences of the input document which have been translated from a source language to a target language; and
with a processor, predicting the translation quality of the translated input document based on the translation quality estimate for each of the sentences and parameters of a model learned using translation quality estimates for sentences of training documents and respective manually-applied translation quality values, wherein the predicting includes computing a generalized mean function which aggregates the translation quality estimate of each of the sentences of the document and wherein the model parameters include parameters for mapping translation quality estimates to respective weights to be applied to the translation quality estimates in computing the generalized mean function.

Claims 1–20 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Throughout this decision, we make reference to the Substitute Brief on Appeal (“App. Br.,” filed Nov. 28, 2016), the Reply Brief (“Reply Br.,” filed Mar. 15, 2017), and the Examiner’s Answer (“Ans.,” mailed Feb. 24, 2017) for their respective details.

ISSUE

Does Appellant claim an invention that is patent-eligible under 35 U.S.C. § 101?

PRINCIPLES OF LAW

The Supreme Court

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, [] 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, [] 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. [The Court] 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. Pty. Ltd. v CLS Bank Int’l, 134 S. Ct. 2347, 2355 (2014) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66 (2012)).

ANALYSIS

We are not persuaded by Appellant’s argument that the claims do not recite a judicial exception. *See* App. Br. 7–9. We agree with the Examiner that, applying step one of the *Alice* analysis, the claims recite a patent-ineligible concept, to wit, the abstract idea of predicting the translation quality of a document, including performing translations of a plurality of sentences from a source language to a target language. Final Act. 4. We further agree with the Examiner that the claims also recite a mathematical calculation of the quality of the translation, and a mathematical aggregation of the translation quality scores for the plurality of sentences. Final Act. 4–5.

We do not agree with Appellant that “a user cannot perform statistical machine translation in the head or even with pen and paper,” because it “requires the storage of vast amounts of statistics” and “complex aggregation of these statistics.” App. Br. 8–9. While it would surely take longer for a human translator to perform the machine translation steps, we find that it remains a method that a human being is capable of performing.

We are not persuaded by Appellant’s analogy of the claims under appeal to those in *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016). App. Br. 12. The *Enfish* court held that the invention, a self-referential table for a computer database, constituted a “specific improvement to the way computers operate.” *Enfish*, 822 F.3d at 1336. Appellant’s invention recites no such improvement to the operation of computers, but rather merely assess the quality of a machine translation of a document.

We agree with the Examiner’s analogy of the claimed invention to the invention recited in *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016). The claims under appeal focus on collecting information (translated sentences and estimated translation quality of each sentence), analyzing information (computing a generalized mean function that aggregates the translation quality estimates), and, presumably, displaying or outputting the computed generalized mean function. *See* Ans. 5. As in *Electric Power Group*, the claims are directed to a process of gathering and analyzing information of a specified content, then displaying the results, rather than any particular inventive technology for performing those functions. *Id.* Nothing in the claims, understood in light of the

specification, requires anything other than convention computer, network, and display technology.

Turning to step two of the *Alice* analysis, we are not persuaded that the claimed invention contains an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application. *See Alice*, 134 S. Ct. at 2351. Appellant's citation of *Diehr* and *Flook* is instructive in this context. *See App. Br. 11*. The claimed invention recites translating a plurality of sentences of an input document from a source language to a target language, receiving a respective translation quality estimate for each translated sentence, and aggregating those estimates into an overall predicted translation quality. The claims do not, however, recite any further inventive concept that would transform the abstract ideas of translating sentences, and estimating the quality of said translation, into something patent-eligible. Unlike *Diehr*, there is no action taken in the physical world such as the opening of a rubber mold at the appropriate time. *See Diamond v. Diehr*, 450 U.S. 175 (1981). The invention of *Flook*, which used a mathematical formula to adjust alarm limits for certain operating conditions that could signal inefficiency or danger, was similarly held to be ineligible for lack of such a physical transformation, or for merely limiting the use of an abstract idea to a particular technological environment. *See Parker v. Flook*, 437 U.S. 584 (1978). Appellant has not demonstrated that the steps of performing machine translation and predicting translation quality improve the functioning of the computer itself.

Appeal 2017-006549
Application 14/244,385

CONCLUSION

Appellant does not claim an invention that is patent-eligible under 35 U.S.C. § 101.

ORDER

The Examiner's decision to reject claims 1–20 is affirmed.

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).

AFFIRMED