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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CAILIANG LIU, ZHIBING WANG, and DONG GUO

Appeal 2019-000736
Application 14/792,220
Technology Center 2400

Before JOHN A. EVANS, LINZY T. McCARTNEY, and JASON J. CHUNG, *Administrative Patent Judges.*

McCARTNEY, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellant[1] seeks review under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1–11, 13–17, and 19–22. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

[1] Appellant identifies the real party in interest as Hulu, LLC. Supplemental Appeal Brief 2, filed May 15, 2018 ("Appeal Br.").

BACKGROUND

This patent application concerns video view estimation. *See* Specification ¶¶ 18–21, filed July 6, 2015. Claim 1 illustrates the claimed subject matter:

> 1. A method comprising:
>
> sending, by a computing device, videos to users that use a video delivery service, wherein at least a portion of the videos include shows that have episodes released sequentially that are requested on demand when released;
>
> recording, by the computing device, historical records of video views for the video based on the sending of the at least a portion of the videos to the users that were requested on demand;
>
> for a show, determining, by the computing device, a show-specific model to predict future video views by performing:
>
> determining, by the computing device, historical records of video views for different episodes of the show that were requested on demand;
>
> training, by the computing device, the show-specific model with the historical records, wherein the show-specific model models a decay curve with a slow growing term that regularizes a decay speed of a decay of the decay curve;
>
> using, by the computing device, the show-specific model to predict future video views for requesting the show on demand for a future time range for episodes of the show, wherein using the show-specific model comprises:
>
> predicting, by the computing device, future video views for existing episodes of the show by setting a first day of the show-specific model to a first day in the future time range;
>
> predicting, by the computing device, future release dates of future episodes of the show; and
>
> predicting, by the computing device, future video views in the future time range for future episodes of the show by aligning a first day of the show-specific model to

the respective future release dates of the future episodes; and

outputting, by the computing device, the future video views to an ad system configured to sell ads for the show.

Appeal Br. 17.

REJECTION

Claims	35 U.S.C. §
1–11, 13–17, 19–22	101

DISCUSSION

The Examiner determined that claims 1–11, 13–17, and 19–22 are "directed to the abstract idea of using mathematical computations to predict future video views for a future time range and aligning [a] show-specific model to the respective future release dates." Final Office Action 4, mailed November 28, 2017 ("Final Act."). The Examiner determined that the additional elements recited in these claims do not amount to significantly more than the abstract idea because the elements "amount to mere instructions to implement the abstract idea on a computer" and involve limitations that "would be routine in any computer implementation." Final Act. 5; *see also* Examiner's Answer 7, mailed September 7, 2018 ("Ans.") (making similar determinations).

Appellant argues that the Examiner has not shown that claims 1–11, 13–17, and 19–22 are patent ineligible because the Examiner has provided no evidence that the recited additional elements involve well-understood, routine, and conventional activities. *See* Appeal Br. 7–8, 14; Reply Brief 2, filed November 7, 2018.

We agree with Appellant. Section 101 of the Patent Act provides that "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof" is patent eligible. 35 U.S.C. § 101. But the Supreme Court has long recognized an implicit exception to this section: "Laws of nature, natural phenomena, and abstract ideas are not patentable." *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)). To determine whether a claim falls within one of these excluded categories, the Court has set out a two-part framework. The framework requires us first to consider whether the claim is "directed to one of those patent-ineligible concepts." *Alice*, 573 U.S. at 217. If so, we then examine "the elements of [the] 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." *Alice*, 573 U.S. at 217 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 78, 79 (2012)). That is, we examine the claim for an "inventive concept," "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*, 573 U.S. at 217–18 (alteration in original) (quoting *Mayo*, 566 U.S. at 72–73).

The Patent Office has revised its guidance about this framework. *See* 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Revised Guidance"); *see also* USPTO, Memorandum on Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*) (Apr. 19, 2018), available at https://www.uspto.gov/sites/default/files/documents

/memo-berkheimer-20180419.PDF ("Berkheimer Memo"). As relevant here, the Revised Guidance explains that, when determining whether a claim has an inventive concept, an examiner should consider whether the additional claim elements add "a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field" or "simply append[] well-understood, routine, conventional activities previously known to the industry specified at a high level of generality." Revised Guidance, 84 Fed. Reg. at 56.

Whether additional claim elements add well-understood, routine, conventional activities is a factual determination that an examiner must support in at least one of the ways specified in the Berkheimer Memo. *See* Berkheimer Memo 2–4. The specified ways include citing (1) "an express statement in the specification or to a statement made by an applicant during prosecution that demonstrates the well-understood, routine, conventional nature of the additional element(s)," (2) "one or more of the court decisions discussed in MPEP § 2106.05(d)(II) as noting the well-understood, routine, conventional nature of the additional element(s)," (3) "a publication that demonstrates the well-understood, routine, conventional nature of the additional element(s)," or (4) "taking official notice of the well-understood, routine, conventional nature of the additional element(s)." Berkheimer Memo 3, 4.

Here, the Examiner did not adequately support the finding that the additional elements recited in claims 1–11, 13–17, and 19–22 involve limitations that "would be routine in any computer implementation." Final Act. 5. The Examiner did not provide any support for this finding, let alone provide the support required by the Berkheimer Memo. *See* Final Act. 5;

Ans. 7. As a result, we do not sustain the Examiner's rejection of claims 1–11, 13–17, and 19–22 under § 101.

CONCLUSION

Claims Rejected	35 U.S.C. §	Affirmed	Reversed
1–11, 13–17, 19–22	101		1–11, 13–17, 19–22

REVERSED