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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ALEX KUSHKULEY and SU-MING WU

Appeal 2018-001747
Application 13/645,722
Technology Center 3600

Before ELENI MANTIS MERCADER, JAMES W. DEJMEK, and
JOYCE CRAIG, *Administrative Patent Judges*.

MANTIS MERCADER, *Administrative Patent Judge*.

DECISION ON REQUEST FOR REHEARING

STATEMENT OF THE CASE

Appellants request rehearing under 37 C.F.R. § 41.52 of our Decision, mailed on March 28, 2019 (“Decision”), in which we affirmed the Examiner’s rejection under 35 U.S.C. § 101 of claims 1–20. Appellants timely filed a Request for Rehearing (“Req. Reh’g”) on May 28, 2019.

Appellants argue that the present claims are similar to the claims in *Ex parte Smith* (*Ex parte Smith*, 2018-000064, 2019 WL 764497 (PTAB Jan. 31, 2019)) that was designated as an informative decision. Req. Reh’g 2. According to Appellants, in *Ex parte Smith* the PTAB found that additional limitations beyond the conventional functionality limitations did, in fact, integrate the recited judicial exception of derivative trading into a

practical application. *Id.* (citing *Smith*, 2019 WL 764497, at *5). “In particular, these additional elements limit the conventional practice of automatically executing matching market orders by reciting a specific timing mechanism in which the execution of a matching order is delayed for a specific period of time.” *Smith*, 2019 WL 764497, at *5). According to Appellants, the PTAB found that the specification provided further context to conclude that the use of the claimed timing mechanisms and the associated temporary restraints on execution of trades provided a specific technological improvement over prior derivatives trading systems. *Id.* (citing *Smith*, 2019 WL 764497, at *5).

Smith is an informative decision that, although not binding authority, nonetheless provides instructive guidance and Board norms on patent eligibility issues. *See* PTAB Standard Operating Procedure 2, Rev. 10 § III, at 11. In *Smith*, however, the claimed timing mechanisms and associated temporary restraints on execution of trades were additional elements that provided a specific technological improvement over prior derivative trading systems. *See Smith*, 2019 WL 764497, at *5. In the instant case, consistent with the Revised Guidance, the recited determinations are not additional elements beyond the identified abstract idea because they are part of the abstract idea.

Appellants’ contention that the recited determinations are analogous to additional elements of *Smith* that integrated a recited judicial exception into a practical application (Reh’g Req. 3–7) is unpersuasive. Those determinations are part of the abstract idea as noted above and in our Decision. Therefore, Appellants’ reliance on *Smith* is not germane to the holding in our decision and is, therefore, unpersuasive.

The Decision already addressed Appellants' "improvement" argument made in the briefs. *See* Decision 9–13. As we stated in our Decision, Appellants' argument regarding improvement of computer-related technology because "the huge space of all possible price curves and all possible inventory curves is reduced to a small set of coefficients," resulting in efficiencies (App. Br. 9–10 (citing Spec. para. 23)), is not persuasive. Appellants do not provide any evidence to support their assertion of computer efficiencies. Furthermore, we agree with the Examiner that receiving demand parameters of the retail item at the store and one or more constraints, determining a revenue in terms of values of the price coefficients for the price orthogonal polynomials and the inventory coefficients for the inventory orthogonal polynomials, determining an initial guess of the price coefficients and the inventory coefficients, and determining a gradient of the revenue are an example of receiving and processing data. *See* Ans. 12. The various additional elements of the claims also receive, process, and store data as well as receive and transmit data over a network. *Id.*

Additionally, the Examiner determined that the application of orthogonal polynomials and Chebyshev polynomials does not amount to significantly more and would not result in an improvement to the computer itself or to another technology or technical field, and does not go beyond well-understood, routine, and conventional in the art activities. *See* Final Act. 15. We note that the patents of record including Walser (para. 103), Desai (Figures 2B and 2C), and Myr (paras. 99, 100), use coefficients in the analysis of optimized price markdown schedules. Accordingly, this further supports the Examiner's finding that the application of coefficients is

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nothing more than what is well-understood, routine, and conventional activity in the field. *See* Memorandum (2019 Revised Patent Subject Matter Eligibility Guidance), Step 2B, Prong 2.

In summary, we grant the Request to the extent that we have reconsidered the record, however, we decline to modify our prior Decision in any respect. Accordingly, the Request for Rehearing is denied.

REHEARING DENIED