

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC
Petitioner

v.

K.MIZRA LLC
Patent Owner

Case No. IPR2026-00304
Patent 8,438,120

**PETITIONER'S REPLY TO PATENT OWNER'S
PRELIMINARY RESPONSE**

Petitioner Google LLC submits this reply to Patent Owner's Preliminary Response ("POPR") pursuant to the Board's authorization of July 30, 2026.

I. Petitioner Demonstrates Unpatentability of the Claims in Accordance With Their Ordinary and Customary Meaning

Petitioner has interpreted the claim terms in accordance with their ordinary and customary meaning. *See* Pet., 22; Paper 9, 15-18. PO complains that "Petitioner does not propose any express constructions for specific terms." POPR, 7.¹ Yet PO fails to provide any explanation as to why the claims should not be given their ordinary and customary meaning.

The Petition provides examples of how the claim terms map to exemplary features of the Watanabe document. *See* Pet., 10-11 and 24-25; Paper 9, 18. Whether the Board gives "hyperparameter" its ordinary and customary meaning or arrives at an express construction does not matter given the Petition's comprehensive treatment of "hyperparameter." The claims are invalid under any potential interpretation because Watanabe discloses hyperparameters that are identical to hyperparameters of exemplary embodiments in the '120 Patent. This demonstrates strength of the merits, which is reason for institution.

¹ PO made the same argument in its failed request for discretionary denial.

II. PO Focuses on an Unclaimed Term “Elitism” and Overlooks That Watanabe Explicitly Discloses Elements [1.3]-[1.4] as Claimed

PO’s challenges to the Petition’s merits in establishing Watanabe’s disclosure of Elements [1.3]-[1.4] fail. PO asserts that: 1) Watanabe preserves “best vectors for *subsequent iterations*, *not* to update an estimate of a target vector in a *current iteration*” and that Watanabe’s “recombination process Petitioner relies on does not use elitism,” 2) the “Petition invokes Shaefer, which is a reference not included in any Ground,” and 3) the Petition lacks “motivation” for its obviousness assertions. POPR, 2, 10-11. PO’s arguments fail for at least three reasons.

First, the Petition explains that Watanabe’s “iteratively” selecting of a solution vector of “highest fitness” to produce an “optimal solution” satisfies the ’120 Patent’s claimed process of: [1.3] “selecting, from the random sample of hyperparameter vectors, a hyperparameter vector producing a best result in the present and any previous iterations,” and [1.4] “wherein the step of updating the estimate of the target hyperparameter vector uses said hyperparameter vector producing the best result.” *See* Pet., 1-2, 13-18, and 43-48.

Second, should Elements [1.3]/[1.4] be construed as “elitism,” Watanabe’s iterative process utilizes mathematical “recombination” – i.e., elitism. *See* Pet. 44-46. PO overlooks that Petitioner merely cited Shaefer as demonstrating that a POSITA would have understood Watanabe’s recombination process to include an elitist strategy. *Id.* PO does not contest that Watanabe discloses a genetic algorithm

to perform a recombination operation. Shaefer demonstrates that “[i]t was well-known for recombination operations of genetic-based algorithms to include elitism selection.” Pet, 45. Accordingly, even if the claims are read as constituting an elitist strategy, they are unpatentable over Watanabe.

Third, PO concedes that “the Petition [] describes advantages to elitism” (POPR, 11) but overlooks that such advantages provide “motivat[ion] to use an elitist strategy” as explained in the Petition (Pet., 45-46). Watanabe’s iterative process renders unpatentable Elements [1.3] and [1.4] even without reference to Shaefer. *See* Pet. 43-48. As stated in the Petition, “[e]ven if Watanabe’s recombination operation is somehow found to not expressly satisfy the recited ‘selecting, from the random sample of hyperparameter vectors, a hyperparameter vector producing a best result in the present and any previous iterations’ (which it does), it would have been obvious to utilize an elitist strategy because elitism (which is precisely ‘producing a best result in the present and any previous iterations’) was a well-known technique of genetic algorithms.” Pet., 45. In other words, even if “selecting, from the random sample of hyperparameter vectors, a hyperparameter vector producing a best result in the present and any previous iterations” requires elitism (*see* POPR, 9), a POSITA would have known that recombination is a genetic algorithm which uses elitism functionality.

The Challenged Claims are unpatentable and institution is warranted.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that on this 4th day of August, 2026, a true and correct copy of the foregoing **PETITIONER'S REPLY TO PATENT OWNER'S PRELIMINARY RESPONSE** is being served upon Patent Owner's counsel via electronic mail as follows:

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