

Supplementary Note on Loss Function Correction

During a recent review of our manuscript [1] titled “*Deep Learning for Fixed Model Reuse*”, we identified a typographical issue in the formulation of the classification loss term in Equation (1). The expression in the published version was presented as:

$$\tilde{\ell}(\mathbf{x}_i^{l_p}, \mathbf{z}_i, y_i) = y_i \log h(f(\mathbf{x}_i^{l_p}) + g(\mathbf{z}_i)); \quad (1)$$

The formulation should be corrected as the standard negative log-likelihood (cross-entropy) objective:

$$\tilde{\ell}(\mathbf{x}_i^{l_p}, \mathbf{z}_i, y_i) = -y_i \log h(f(\mathbf{x}_i^{l_p}) + g(\mathbf{z}_i)); \quad (2)$$

The missing negative sign was introduced during manuscript preparation and only affects the written presentation of the equation.

All experiments reported in the paper were conducted using the correct implementation of the cross-entropy loss with the negative sign included. Therefore, this correction does not affect:

- the optimization procedure,
- the implementation details,
- the reported experimental results,
- or the conclusions of the paper.

References

- [1] Y. Yang, D.-C. Zhan, Y. Fan, Y. Jiang, and Z.-H. Zhou, “Deep learning for fixed model reuse,” in *Proceedings of the AAAI conference on artificial intelligence*, vol. 31, no. 1, 2017.