

Review of: "Comparative Analysis of Machine and Deep Learning Techniques for Text Classification with Emphasis on Data Preprocessing"

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Potential competing interests: No potential competing interests to declare.

The authors have made a significant contribution to the field by systematically comparing machine learning and deep learning techniques with a focus on data preprocessing. This paper fills a gap in the existing literature by providing a detailed exploration of how different preprocessing techniques affect model performance. The originality of the approach and the thoroughness of the analysis make this paper a valuable resource for researchers and practitioners alike.

Balancing the dataset improved the models' ability to correctly classify minority class instances, thereby enhancing the overall classification performance. This was particularly evident in models like Random Forests and Neural Networks, which can be sensitive to class distribution.

Addressing the limitations of the preprocessing techniques and suggesting areas for future research would provide a balanced view. For instance, the authors could discuss the limitations of certain techniques in handling idiomatic expressions or contextual nuances in text and propose future work to explore advanced methods like contextual embeddings.

Including these additional details and clarifications would not only enhance the reader's understanding but also provide a more thorough and nuanced analysis of the impact of data preprocessing on text classification models.