Faculty of Mathematics and Computer Science

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Cross-Linguistic Analysis for Depression Detection

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Abstract

This scientific study delves into the realm of depression detection through the lens of artificial intelligence (AI) and natural language processing (NLP). With a focus on enhancing the accuracy and applicability of depression identification tools, the study first provides a thorough understanding of depression statistics and insights. It then outlines the primary objective: to develop a robust AI model capable of detecting depression while also assessing its performance across linguistic boundaries.

The chapters unfold to reveal a comprehensive exploration of the dataset, shedding light on its composition and characteristics. Subsequent chapters delve into the intricate process of model selection and hyperparameter tuning, aiming to optimize AI algorithms for depression detection. A pivotal aspect of the study lies in its cross-linguistic analysis, where the dataset is translated into Romanian, and the AI model is trained and evaluated on this multilingual data, offering insights into the model's performance in different linguistic contexts.

Through meticulous analysis and experimentation, this study presents valuable contributions to the field of depression detection, highlighting the importance of linguistic diversity in AI-based approaches. Ultimately, the findings pave the way for more effective and culturally inclusive depression identification tools, with implications for global mental health initiatives.

1. Introduction

2. Model Selection and Hyperparameter Tuning: Optimizing AI for Depression Detection

[3, 2, 5]

3. Training AI Models on Translated Datasets: Adapting English Content for Romanian Contexts

[1, 4]

4. Discussion

5. Conclusions and future work

References

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