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(57) Abstract :

ABSTRACT Adaptive Multilingual Sentiment Analysis with Deep Neural Models This invention is a system for analyzing sentiment in text across multiple languages using advanced deep learning models. The system is designed to automatically detect the language of the input text and then choose or adapt a neural network model that is best suited for that language. This allows the system to accurately understand and classify whether the sentiment expressed in the text is positive, negative, or neutral, regardless of the language used. The system includes several key components: a language detection module, a preprocessing unit to clean and prepare the text, a model selection or adaptation engine, and a continuous learning mechanism. The language detection module identifies the language, while the preprocessing unit standardizes the text for analysis. The model selection engine either picks a pre-trained model specific to the language or adapts a general model using learning techniques. The continuous learning mechanism enables the system to improve over time as it processes more text in different languages. This system makes sentiment analysis more accessible and accurate for global applications by automatically adjusting to different languages. It reduces the need for manual adjustments and can handle a wide variety of languages efficiently. This invention is especially useful for businesses, researchers, and organizations that need to analyze sentiment in real-time across diverse linguistic contexts.

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