Special Issue

Deep Learning for Sentiment Analysis: Latest Advances and New Challenges

Message from the Guest Editor

Sentiment analysis has become one of the most dynamic research areas in natural language processing, extending its impact beyond computing to disciplines such as management, social sciences, finance, political science, communications, and public health. Its growing relevance to businesses and society has fueled this expansion. While earlier studies in sentiment analysis introduced a variety of supervised and unsupervised techniques, deep learning has recently emerged as a dominant approach, offering state-of-the-art performance. Over the past decade, deep learning has proven especially effective for sentiment analysis by enabling automatic learning of complex linguistic patterns, an area where traditional machine learning methods often fall short. It consistently outperforms classical approaches in benchmark tasks, particularly in handling nuanced expressions such as sarcasm, idioms, and mixed sentiments. Pre-trained models like BERT, RoBERTa, and GPT have further advanced the field by allowing fine-tuning on sentiment datasets with limited labelled data, significantly enhancing performance.

Guest Editor

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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