Special Issue

Advances in Few-Shot Learning with Multimodal Large Models

Message from the Guest Editors

The rapid advancement of multimodal large models has led to significant improvements in many areas, including few-shot learning. Few-shot learning, which enables models to learn new tasks with minimal labeled data, has gained considerable attention due to its potential to overcome data limitations. Multimodal large models can integrate information from various data sources such as text, images, and audio. Current few-shot learning research based on multimodal large models has explored various new methods such as prompt learning, adapter learning, knowledge distillation, and self-supervised learning, achieving significant performance improvements. Despite these, current research still faces several challenges such as limited generalization capability when dealing with low data, uneven data and cross-modal alignment. This Special Issue will focus on the latest research of multimodal large models in few-shot learning, with emphasis on how to fully exploit the potential of multimodal data under the few-shot condition to achieve stronger generalization capabilities.

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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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