Special Issue

Large Language Models and Knowledge Computing

Message from the Guest Editor

Currently, the interdisciplinary research on large language models (LLMs) and knowledge computing is leading a new wave of development in the field of artificial intelligence. The core scientific challenge of this research direction lies in achieving deep synergy between structured knowledge (e.g., knowledge graphs and domain rules) and the implicit knowledge representation capabilities of large-scale pretrained models, as well as leveraging domain knowledge to overcome the cognitive boundaries and reasoning limitations of large models. This Special Issue focuses on (but is not limited to) the following topics:

Exploring the Knowledge Boundaries of Large Language Models

New Paradigms for Knowledge Mining Based on Large Language Models

Construction of Interpretable and Verifiable Knowledge Systems to Support Intelligent Reasoning and Decision-Making

Systematic Strategies to Improve the Trustworthiness of Generated Content

Advanced Methods for Parametric Knowledge Rditing and Incremental Learning

Knowledge Neuron Analysis and Interpretability Research on Model Decision Paths

Guest Editor

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Message from the Editor-in-Chief

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.

Editor-in-Chief

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