



Autonomous Learning Systems: Concepts, Methodologies, and Applications

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Message from the Guest Editors

Dear Colleagues,

Autonomous learning systems at the forefront of machine learning and artificial intelligence advancements. These systems, including but not limited to self-learning algorithms, have the potential to learn and improve their performance over time with minimal supervision. They are increasingly applied across a diverse array of domains, from image recognition and natural language processing to healthcare diagnostics. Despite the significant advancements, numerous research challenges persist in the field of autonomous learning systems. How can we design systems that mitigate the risk of confirmation bias, ensure ethical use given their potential autonomy, and address scalability issues in the face of today's big data era?

The aim of this Special Issue is to provide a dedicated platform for researchers and practitioners to share their latest advancements, in the development, application, and implications of autonomous learning systems. We encourage contributions addressing innovative concepts, methodologies, real-world applications, and ethical considerations in this exciting and rapidly evolving field.

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Message from the Editor-in-Chief

Algorithms are the very core of Computer Science. The whole area has been considered from quite different perspectives, having led to the development of many sub-communities: Complexity theory (limitations), approximation or parameterized algorithms (types of problems), geometric algorithms (subject area), metaheuristics, algorithm engineering, medical imaging (applications), indicates the range of perspectives. Our journal welcomes submissions written from any of these perspectives, so that it may become a forum for exchange of ideas between the corresponding scientific subcommunities.

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