



Sustainable Big Data Analytics and Machine Learning Technologies

Guest Editor:

Message from the Guest Editor

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With the advances in big data analytics and machine learning technologies, people's daily lives have been improved in many different ways, largely due to the development of deep learning algorithms. However, deep learning algorithms rely on powerful machines and systems with GPUs to accomplish the complex and long training process. On the one hand, big data analytics solutions utilize distributed frameworks to scale out in terms of data parallelism or task parallelism. On the other hand, the impact of technology on environmental changes could lead to significant damages that also jeopardize human lives and global ecology. Many efforts have begun to address the sustainability issues by containing the environmental changes and slowing down deterioration—for example, addressing climate change, water resources, air quality, etc.

This Special Issue focuses on ideas such as big data analytics for sustainability, federated learning, and distributed deep learning. We aim to seek potential solutions and empirical studies that investigate sustainable technologies that are also energy efficient and resource efficient.

