Special Issue

Generative AI for Intelligent Knowledge Systems and Adaptive Learning

Message from the Guest Editors

Artificial Intelligence (AI) is revolutionizing education through its transformative applications in Educational Data Mining (EDM) and Learning Analytics (LA). This Special Issue of *Applied Sciences* aims to highlight cutting-edge research on leveraging AI to analyze, interpret, and optimize educational processes. EDM uncovers patterns from educational data, while LA uses data-driven insights to improve learning outcomes and instructional design. The focus is to showcase novel AI techniques, algorithms, and tools that enable understanding, prediction, and intervention in educational environments. Topics of interest include, but are not limited to, the following:

- AI-based learning data visualization
- AI-driven personalized learning paths
- AI strategies for student engagement and retention
- Machine and deep learning in education
- Predictive modeling of student performance and behavior

  This Special Issue aims to build a data-driven, inclusive, and impactful learning ecosystem that leverages AI to shape the future of education through collaboration among researchers, educators, and policymakers, focusing on theoretical advances, practical implementations, and interdisciplinary perspectives.

Guest Editors

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About the Journal

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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