Enhancing Personalized Learning Experiences: Leveraging Multi-Modal Learning Analytics Dashboards

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Abstract

Personalized learning has gained traction in education as a means of tailoring educational experiences to individual students with the help of students learning reports. The integration of multi-modal learning analytics dashboards with artificial intelligence (AI) holds great promise for enhancing personalized learning experiences far better than before. This paper explores the impact of AI on interactive dashboard performance for personalized learning, with a specific focus on leveraging multi-modal data. The research highlights the potential of multi-modal learning analytics dashboards to provide a comprehensive understanding of students' learning experiences. Advanced techniques, including natural language processing, sentiment analysis, and audio-video processing, offer valuable insights into student engagement, comprehension, and learning progress. These insights inform data-driven decision-making, personalized feedback, and tailored interventions to enhance student outcomes. Integration of AI technologies has the potential to revolutionize learning, creating an effective and personalized ecosystem.

Keywords: Learning Analytics, Multi-Modal Learning Analytics, Personalised Learning, Artificial Intelligence