

# The Contribution of Artificial Intelligence in Personalized Learning Methodology in Education

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**Abstract.** Artificial intelligence is having an important contribution and influence in many areas of society including education. The personalized learning methodology is the customization and adaptation of educational methods and techniques so that the learning process is better suited for each individual learner, with their own unique learning style, background, needs, and previous learning experiences. This methodology can achieve its objectives with the integration of AI-based algorithms. AI technologies enable personalized learning by leveraging student data, analyzing patterns, and providing tailored instruction. This research aims to analyze and recommend AI-based algorithms that are more suitable for personalized learning in education. To achieve our goal, we consider student learning styles and previous learning experiences. We concluded that the integration of AI in personalized learning contributes to building accurate and efficient personalized learning systems that satisfy and adapt to each learner's needs. In the end, incorporating AI in personalized learning methodologies can transform education by optimizing individual learning experiences, improving learning outcomes, and supporting educators in their instructional efforts.

**Keywords.** Personalized learning, AI-based algorithms, educational technologies, adaptive learning experience, learning preferences

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