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Abstract:

Introduction:

This systematic research aims to debate emerging issues in pedagogical innovation, with a strong focus on educational technologies and, more specifically, artificial intelligence (AI), which is reshaping teaching methods, and promoting innovative teaching approaches and personalized learning experiences. One of its main strengths lies in adapting education to the individual needs of students. AI algorithms analyse learning patterns, enabling personalized learning paths for each student. This possibility allows for greater commitment and understanding, as learning is carried out at the student's pace and level of proficiency.

The results show that AI's data processing capabilities provide important insights into student performance. By analyzing the data, educators gained a greater understanding of learning trends and areas in need of improvement. This data-driven approach allows faculty to refine teaching strategies, identify learning gaps, and provide targeted interventions to support student progress.

Methodology:

The methodological approach of this research is a systematic literature review on the emerging issues in pedagogical innovation with a focus on educational technologies, particularly artificial intelligence (AI), and involves a structured approach to gather, evaluate, and synthesize relevant academic literature on this topic. It will be used the software Vosviewer to help to do the systematic literature review.

Results and discussion:

Based on the systematic literature review the main results show that AI-based tutorial systems stand out as real-time, and interactive support mechanisms. These systems offer immediate assistance and explain and adapt their teaching methods based on student responses, creating a personalized learning environment.

Additionally, AI simplifies teachers' administrative tasks, freeing up more time for personalized teaching and guidance. Virtual reality and immersive experiences, powered by AI, create dynamic learning environments that promote deeper engagement and understanding among students.

However, ethical considerations remain paramount. While AI can improve education strategies, it is crucial to maintain data privacy, mitigate bias, and ensure human oversight. AI should serve as a complement to humans, rather than replacing them. Ultimately, the application of AI to pedagogical innovation promotes transformative educational experiences by providing personalized, inclusive, and practical learning opportunities adapted to the diverse needs of students.

Keywords:

Artificial Intelligence, Teaching Approaches, Education trends.