

Role of Artificial Intelligence in the personalization of distance education: a systematic review

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AI - Opportunity

Artificial intelligence (AI) represents a significant opportunity for the personalization and adaptation of educational systems in virtual mode.



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AI advances in education

Advances in AI have been applied mainly in intelligent tutoring systems, predictive models, and personalization of resources and learning strategies.

Objective

This research, which consists of a systematic bibliographic review, aimed to analyze studies on the use of AI in the personalization of learning processes in distance education.



The consultation

The topics and educational levels of the initiatives, main results, types of data used, most recurrent modeling techniques, and perceptions on the implementation of AI in virtual education were identified. For this research, the WoS, Scopus, Dialnet, and SciELO databases were consulted, selecting 65 documents published between 2018 and 2023.

Results

It was observed that AI is integrated outside the learning process in extracurricular support initiatives designed from predictive models of academic success, as well as within the curriculum through the development of adaptive recommendation systems that recommend resources, materials, and personalized learning paths and/or provide personalized feedback on the process.



Conclusions

Successful uses of AI in virtual education have the potential to be adapted, depending on the objective pursued, to various disciplines, including attention to special educational needs (SEN), and to groups of students at different levels of the educational system, with a greater concentration on higher education.