

# Artificial Intelligence and chatbots for sustainable higher education: a systematic review

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## AI and Chatbots

The influence of Artificial Intelligence and chatbots has significantly transformed teaching and learning processes in higher education.



## Aims

This study aims to analyze the scientific production on the role of AI-based chatbots in higher education and their connection to the Sustainable Development Goals (SDGs).



## Systematic review

To achieve this, a systematic review was conducted following the methodology established in the PRISMA Declaration.



## Bibliometrics

The initial search yielded 136 references, of which, after a screening process, 42 were selected for a detailed bibliometric analysis (co-word analysis, citations, and sources) and their relationship with the SDGs.



## Results

The results reveal co-occurrence patterns in key topics, such as the use of chatbots in Different areas of higher education, their challenges, and impact on student motivation.



## The SDGs

Regarding the SDGs, SDG 4 (Quality Education) is the most frequently addressed, followed by SDG 3 (Good Health and Well-being), SDG 7 (Affordable and Clean Energy), SDG 10 (Reduced Inequalities), and SDG 13 (Climate Action).



## Conclusion

In conclusion, this study provides an overview of trends in the use of chatbots in higher education, highlighting their impact and potential in university-level educational development.



## Wishes

This study is expected to contribute to the development of educational policies that promote the sustainable integration of artificial intelligence in the university setting.



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