

Educational Chatbots

Category: Artificial Intelligence in Education

An educational chatbot is a text- or voice-based conversational application designed for a defined learning, teaching or student-support purpose. It may answer routine questions, guide practice, prompt reflection or direct users to services, and may use scripted rules, retrieval or generative AI.

The term describes an application, whereas conversational AI describes the wider enabling approach. A useful chatbot has a bounded role, reliable content and a clear handover when a request is sensitive, ambiguous or outside its competence ([Okonkwo & Ade-Ibijola, 2021](#)).

Educational Roles

1. **Information:** Provide verified answers about courses, processes, resources or deadlines.
2. **Practice:** Pose questions, offer hints and support repeated low-stakes attempts.
3. **Reflection:** Prompt learners to explain reasoning, set goals or review their approach.
4. **Navigation:** Direct users to appropriate learning materials or institutional services.
5. **Handover:** Recognise limits and connect the user with qualified human support.

Examples in Practice

A university induction chatbot might answer questions from verified policy pages in several languages and link each source. It avoids advising on individual visa or wellbeing cases, explains that it is automated and transfers these enquiries to the relevant professional team.

Why It Matters

Chatbots can extend access to routine guidance and structured practice, particularly when services are closed. They can also frustrate or mislead users if their remit is unclear; evaluation should examine accuracy, learning value, accessibility and the quality of human escalation. Usage counts alone cannot show whether questions were resolved or learning improved, so qualitative user evidence through observation and interviews is also needed ([Pérez et al., 2020](#)).

Further Reading

6. Okonkwo, C. W., & Ade-Ibijola, A. (2021). [Chatbots applications in education: A systematic review](#). Computers and Education: Artificial Intelligence, 2, 100033.
7. Pérez, J. Q., Daradoumis, T., & Marquès Puig, J. M. (2020). [Rediscovering the use of chatbots in education](#). Computer Applications in Engineering Education, 28, 1549–1565.
8. Wollny, S., et al. (2021). [Are we there yet? A systematic literature review on chatbots in education](#). Frontiers in Artificial Intelligence, 4, 654924.

Related Terms: Conversational AI in Education | Virtual Assistants | Intelligent Tutoring Systems | Student Support