UNIVERSITI TEKNOLOGI MARA

BULETIN APB

EDUCATION FOR BETTER FUTURE



EDISI 17

OKTOBER 2026

AKADEMI PENGAJIAN BAHASA
UNIVERSITI TEKNOLOGI MARA
CAWANGAN NEGERI SEMBILAN
KAMPUS SEREMBAN

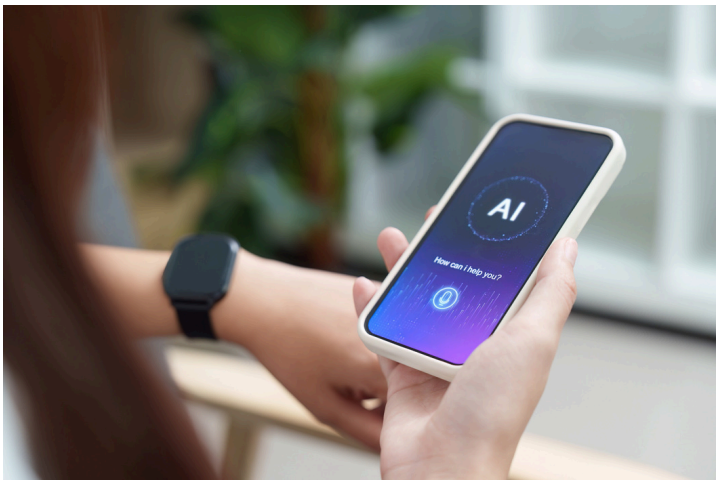
e-ISSN : 2682-7948

AI in Education: Breaking Down Barriers to Accessibility

SHARINA SALMI AZMI, NURUL SYAFAWANI HALIM, RUHIL NADIAH ABU BAKAR & AFNI ANIDA ADNAN
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN

Learning is no longer confined to classrooms, textbooks, or specific age groups. Today, it is integrated into every aspect of our lives, including work, hobbies, and daily conversations. As technology evolves, artificial intelligence (AI) is becoming one of the most powerful allies for lifelong learning. The recognition of AI across various fields has led to the realization that it can have a transformative effect on education systems. This is important considering that such groups include people with physical disabilities and people who are facing challenges, as well as those who cannot get information from books. AI is changing education in various ways, making it possible for everyone to learn effectively and access education equally, regardless of background or socioeconomic situation.

Artificial intelligence (AI) plays a significant role in advancing multilingual education by reducing language barriers and improving access to learning resources. AI-powered tools, such as translation applications, language-learning platforms, and speech recognition technologies, enable students to access educational content in their native languages. These technologies foster more inclusive learning environments and may encourage greater educational participation among students from diverse linguistic backgrounds (Hillary, 2024).



For example, Duolingo, an AI-supported language-learning platform, provides personalized lessons that adapt to individual learning preferences and progress. This approach improves the accessibility and effectiveness of language education by allowing learners to develop their language skills according to their individual needs (Pedrazzini, 2023).

Beyond language accessibility, AI-based adaptive learning technologies contribute to inclusive education by providing personalized learning experiences that accommodate students with diverse abilities and learning needs. These technologies enable learners, particularly students with disabilities, to access educational materials and progress at their own pace. By adapting learning activities and providing individualized support, AI can help reduce barriers to educational participation and improve student engagement (Gideon, 2023). One example is Microsoft's Seeing AI application, which uses computer vision technology to describe surroundings, read printed text, and identify objects. These features can help students with visual impairments access information and engage more independently in learning activities (Muñoz, 2024).

In education, AI plays an important role in supporting educators by enhancing teaching efficiency and improving the overall learning experience. Rather than replacing teachers, AI-powered tools such as ChatGPT and Gemini can help educators prepare lesson plans, design learning activities, and create quizzes more efficiently. These technologies can also help teachers adapt materials to students' diverse learning abilities and needs, making classroom activities more accessible and engaging. By reducing time spent on routine teaching tasks, AI allows educators to focus more on nurturing creativity, encouraging critical thinking, and building meaningful relationships with students.

By integrating AI technologies with teachers' professional expertise, educational practices can become more effective, interactive, and responsive to students' individual learning needs.

To conclude, AI can greatly improve educational accessibility for all learners, including those with disabilities or other barriers. Through personalized learning experiences, adaptive technologies, and innovative tools, AI helps create a more inclusive and equitable education system. Ultimately, AI aims to help every learner succeed, regardless of their circumstances.



References

Gideon. (2023, July 29). *Breaking Barriers: How AI Promotes Inclusive Education for Students with Disabilities*. Yes You Can Go. https://www.michaelrcronin.com/post/breaking-barriers-how-ai-promotes-inclusive-education-for-students-with-disabilities

Hillary (2024, March 5). *Breaking Down Barriers: AI's Inclusive Approach to Education*. TechBullion. https://techbullion.com/breaking-down-barriers-ais-inclusive-approach-to-education/

Muñoz, I. (2024, June 11). *AI revolutionizes inclusive education for students with disabilities*. Neosmart Insights. https://neosmart.ai/ai-revolutionizes-inclusive-education-students-disabilities/

Pedrazzini, B. (2023, November 15). *The Power of AI in Education: Spotlight on Duolingo*, ELSA Speak, and Socratic. Dita Solutions. https://ditasolutions.com/articles/the-power-of-ai-in-education-spotlight-on-duolingo-elsa-speak-and-socratic/