# Geoffrey Hinton predicts AI tutors will revolutionise education by teaching twice as fast



The landscape of education is undergoing a seismic shift, with predictions that artificial intelligence (AI) could reshape how children learn over the next decade. Geoffrey Hinton, a distinguished figure often referred to as the "godfather of AI," has expressed bold forecasts about the role of AI-powered tutors in future education. He suggests that these technological advancements could allow students to learn at rates over twice as fast as traditional human educators, fundamentally changing educational paradigms.

Hinton's optimism is bolstered by the capabilities of AI to provide tailored and adaptive learning experiences. He highlights that AI tutors have the potential to analyse vast amounts of data from millions of students, enabling them to pinpoint individual learning gaps and deliver customised feedback. This could lead to a scenario where AI tutors outperform human ones by three to four times in terms of effectiveness, especially in technical subjects, thereby challenging the very relevance of conventional universities.

Moreover, initiatives integrating AI into educational environments are already underway. In countries like China, advanced platforms like Squirrel AI have been working to bridge educational disparities by providing quality education tailored to each student's unique needs. Such systems offer high-quality, personalised learning experiences, aiming to reach students in under-resourced areas. The transformative potential of AI in education is not just speculative; it’s evidenced by studies indicating that students using AI tutors have achieved significantly better learning outcomes. A recent study from Harvard revealed that students taught through AI systems learned twice as much as their peers in traditional lecture settings, suggesting a marked advancement in teaching efficacy.

Despite the optimism surrounding AI's role in education, Hinton has also raised crucial concerns over the potential ramifications of this technology. He cautions that as AI continues to evolve, there exists a risk of creating "alien beings" – entities that may operate beyond human comprehension and could pose threats to society. Balancing these developments, Hinton also sees AI enhancing fields such as healthcare, where it could assist in diagnosing diseases and supporting medical education.

The interest in integrating AI into educational methods is not solely academic. Governments are allocating substantial funds to support AI education schemes. With the promise of significantly reducing teachers' workloads in terms of lesson planning, grading, and providing feedback, AI technology presents an attractive option for education systems grappling with increasing demands and limitations.

As these developments unfold, the dialogue regarding the ethical, practical, and societal implications of AI in education will become increasingly imperative. Only time will reveal whether AI can indeed surpass human instructors in educational efficacy, or if it will coexist with traditional teaching methods to provide a more holistic learning environment for the next generation.

## Reference Map:

* Paragraph 1 – [[1]](https://www.dailystar.co.uk/news/latest-news/chatbots-teach-kids-twice-fast-35278513), [[2]](https://www.businesstoday.in/latest/trends/story/four-times-better-ai-tutors-will-soon-outperform-private-tutors-threaten-traditional-universities-says-geoffrey-hinton-471277-2025-04-08)
* Paragraph 2 – [[2]](https://www.businesstoday.in/latest/trends/story/four-times-better-ai-tutors-will-soon-outperform-private-tutors-threaten-traditional-universities-says-geoffrey-hinton-471277-2025-04-08), [[3]](https://www.benzinga.com/news/25/04/45029643/three-or-four-times-better-ai-godfather-geoffrey-hinton-says-ai-tutors-could-soon-outperform-humans-and-make), [[4]](https://www.weforum.org/stories/2024/07/ai-tutor-china-teaching-gaps/)
* Paragraph 3 – [[5]](https://www.forbes.com/sites/torconstantino/2024/09/18/students-learned-twice-as-much-with-ai-tutor-than-typical-lectures/), [[6]](https://www.the74million.org/article/study-ai-assisted-tutoring-boosts-students-math-skills/)
* Paragraph 4 – [[1]](https://www.dailystar.co.uk/news/latest-news/chatbots-teach-kids-twice-fast-35278513), [[5]](https://www.forbes.com/sites/torconstantino/2024/09/18/students-learned-twice-as-much-with-ai-tutor-than-typical-lectures/)
* Paragraph 5 – [[1]](https://www.dailystar.co.uk/news/latest-news/chatbots-teach-kids-twice-fast-35278513), [[2]](https://www.businesstoday.in/latest/trends/story/four-times-better-ai-tutors-will-soon-outperform-private-tutors-threaten-traditional-universities-says-geoffrey-hinton-471277-2025-04-08)
* Paragraph 6 – [[3]](https://www.benzinga.com/news/25/04/45029643/three-or-four-times-better-ai-godfather-geoffrey-hinton-says-ai-tutors-could-soon-outperform-humans-and-make), [[4]](https://www.weforum.org/stories/2024/07/ai-tutor-china-teaching-gaps/), [[5]](https://www.forbes.com/sites/torconstantino/2024/09/18/students-learned-twice-as-much-with-ai-tutor-than-typical-lectures/)

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## Bibliography

1. <https://www.dailystar.co.uk/news/latest-news/chatbots-teach-kids-twice-fast-35278513> - Please view link - unable to able to access data
2. <https://www.businesstoday.in/latest/trends/story/four-times-better-ai-tutors-will-soon-outperform-private-tutors-threaten-traditional-universities-says-geoffrey-hinton-471277-2025-04-08> - In an April 2025 interview, Geoffrey Hinton, a Nobel laureate and AI pioneer, predicted that AI-powered private tutors could soon outperform human educators. He stated that while a human private tutor might be twice as effective, AI tutors could be three to four times better. This advancement could revolutionize technical education, potentially making traditional universities less relevant. Hinton emphasized the need for responsible AI development to address potential challenges posed by this technological shift.
3. <https://www.benzinga.com/news/25/04/45029643/three-or-four-times-better-ai-godfather-geoffrey-hinton-says-ai-tutors-could-soon-outperform-humans-and-make> - Geoffrey Hinton, known as the 'Godfather of AI,' forecasts that AI tutors will soon surpass human tutors in effectiveness. He explained that AI systems, by analyzing data from millions of students, can identify individual learning gaps and provide precise, tailored feedback. This capability could make traditional undergraduate education, especially in technical fields, nearly obsolete within a decade, posing significant challenges to universities.
4. <https://www.weforum.org/stories/2024/07/ai-tutor-china-teaching-gaps/> - In July 2024, the World Economic Forum highlighted the impact of AI tutors in China, focusing on Squirrel AI, an adaptive learning system. The platform offers personalized education by identifying and addressing individual learning gaps, providing high-quality education to students in underserved areas. This approach aims to bridge educational disparities and enhance learning outcomes, demonstrating the transformative potential of AI in education.
5. <https://www.forbes.com/sites/torconstantino/2024/09/18/students-learned-twice-as-much-with-ai-tutor-than-typical-lectures/> - A September 2024 study from Harvard University found that students using AI tutors learned more than twice as much as those attending traditional lectures. The research highlighted that AI tutors, designed with best teaching practices, offer personalized, on-demand learning experiences, allowing students to progress at their own pace and leading to more effective learning outcomes.
6. <https://www.the74million.org/article/study-ai-assisted-tutoring-boosts-students-math-skills/> - A study published in October 2024 demonstrated that AI-assisted tutoring significantly improved students' math skills. Approximately 1,000 students participated, with those using AI-enhanced tutoring methods showing a 4% higher likelihood of mastering the topic compared to peers without AI support. The research underscores the effectiveness of integrating AI into educational practices to enhance learning outcomes.
7. <https://arxiv.org/abs/2402.09809> - A February 2024 study evaluated the impact of Rori, an AI-powered math tutor accessible via WhatsApp, on approximately 1,000 students in Ghana. The findings revealed that students using Rori for two 30-minute sessions per week over eight months had substantially higher math growth scores compared to a control group. This suggests that AI chat-based tutoring solutions can effectively enhance learning outcomes, especially in low-resource settings.