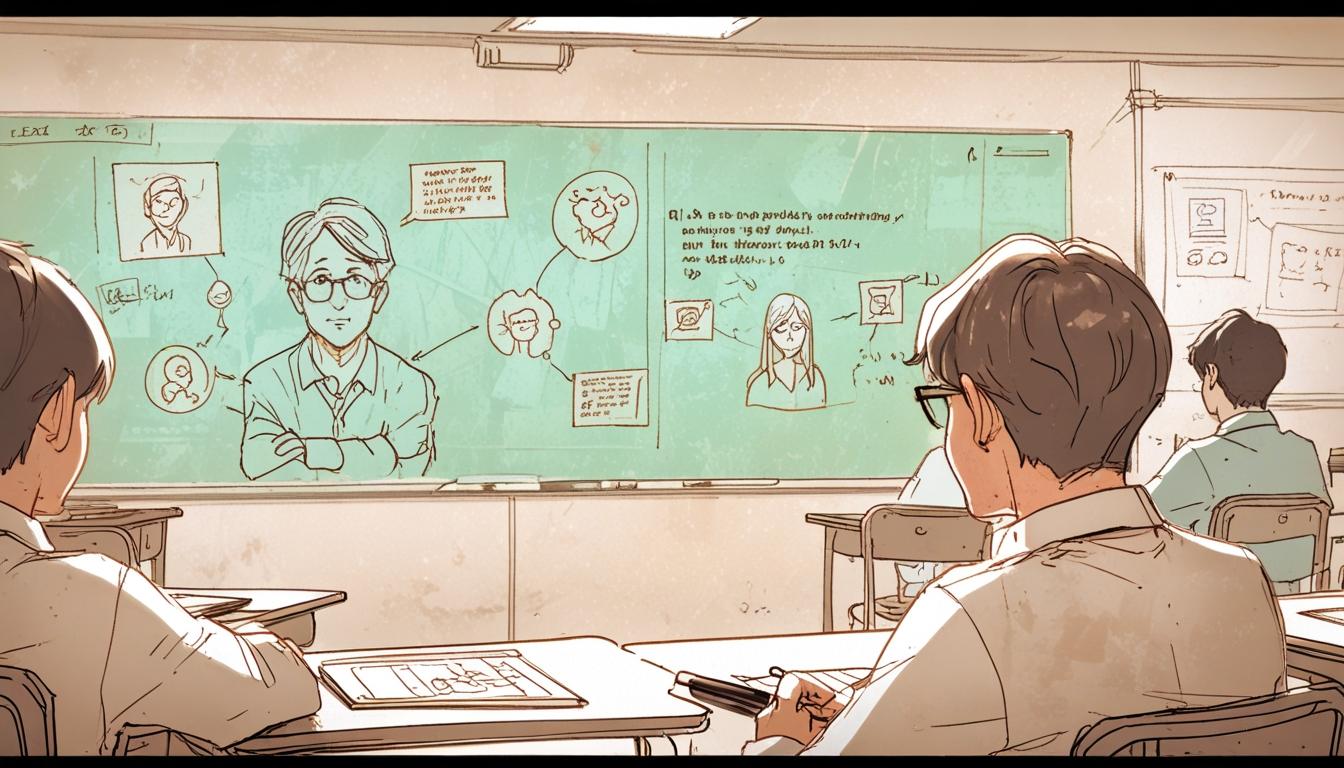
# The rise of AI in education challenges authenticity and cognitive growth



At a liberal arts university, a professor has observed a significant shift in student engagement and writing practices, linked to the increasing use of artificial intelligence tools. Students in a course were asked to write reflective essays on personal cultural experiences that changed them. However, many submissions exhibited a polished, impersonal tone that lacked the authentic nuance typical of individual student work. Upon inquiry, several students admitted to employing AI platforms such as ChatGPT to generate or refine their essays, with some using the technology as a starting point, others as an editorial aid, and a few relying entirely on AI-generated responses. One student candidly remarked, “It gave me the answer,” illustrating a broader trend towards outsourcing cognitive effort.

This phenomenon is not confined to university settings. Educators globally are grappling with a generation equipped with instant access to AI-generated ‘answers,’ which often circumvents the intellectual rigour conventionally associated with learning. The integration of AI now extends beyond mere assignment assistance: it is increasingly involved in generating discussion posts, solving academic problems, and drafting written work, effectively transforming educational processes.

The shift is underpinned by data reflecting a decline in fundamental cognitive skills among young adults in high-income countries. Since 2012, standardised assessments have highlighted a worrying drop in reasoning and problem-solving abilities. For instance, 25% of adults in developed economies and approximately 35% in the United States experience difficulties with basic mathematical reasoning. Financial Times journalist John Burn-Murdoch analysed this trend in a piece titled ‘Have Humans Passed Peak Brain Power?’, attributing the decline not to biological or environmental factors but to the profound cognitive impact of technology. He describes how contemporary habits—shaped by algorithm-driven social media and fragmented media consumption—are eroding attention spans, memory retention, and conceptual understanding. This cognitive reshaping is manifesting as a ‘silent, collective decline’ that increasingly permeates educational environments.

Research conducted in Gujarat, India, provides a practical case study of technological integration in education and its unintended consequences. The Gyankunj programme, aimed at incorporating digital tools such as smartboards into government school classrooms, was the subject of a study by the professor and colleagues. Contrary to expectations, students exposed to these technologies performed worse in mathematics and writing compared to their peers in more traditional classrooms. The underlying reasons included inadequate teacher training and the reduction of educators to passive transmitters of pre-designed content. Mathematics, which demands immediate feedback and cognitive scaffolding, suffered in this context, while writing, typically requiring interactive encouragement and revision, became mechanical and less effective.

This case exemplifies a widespread optimism surrounding educational technologies, often propelled by venture capital and consultancy narratives. Such techno-optimism posits that AI-driven tools can optimise learning processes and supplant traditional teaching. However, as emphasised by the professor, pedagogy is fundamentally relational and context-sensitive. It relies on human elements like trust, dialogue, spontaneous interaction, and personalised encouragement. These aspects, characterised by empathy and adaptability, are irreplaceable by AI systems, regardless of their sophistication.

The encroachment of AI into primary education has seen the introduction of AI-narrated storybooks, algorithmic feedback on children's drawings, and automatically generated writing prompts. These developments raise questions about the future of experiential, tactile learning—an approach historically championed by Indian educators such as Mahatma Gandhi, Rabindranath Tagore, and Gijubhai Badheka. They emphasised the importance of play-based and sensory-rich education in early childhood, nurturing learning from the individual child’s nature or svabhava, a principle also underscored by Sri Aurobindo. The concern is whether algorithms can capture the uniqueness of each learner or match the nuances of such educational philosophies.

Philosopher J Krishnamurti, renowned for his reflections on education, challenged the capacity of any systematic framework to foster genuine freedom in learning. According to his perspective, true education occurs in an environment free of fear, not through efficient content delivery. The widespread presence of AI, which streamlines corrections and suggests predetermined solutions, may constrain creativity and hinder the personal growth essential in education.

Despite these challenges, the professor clarifies a balanced viewpoint, recognising the merits of AI when applied thoughtfully. AI has enhanced accessibility to complex concepts through visualisations, simulations, and language support, and aids educators in lesson planning and supporting students with special needs. Nevertheless, the technology should serve as an adjunct rather than a replacement for the human dimension of teaching.

Concerns extend to the psychological implications of prevalent screen use among children and adolescents. Social psychologist Jonathan Haidt has described this cohort as ‘an anxious generation’—digitally adept yet emotionally fragmented due to constant exposure to screens, algorithmic metrics, and digital surveillance. This raises critical questions regarding educational objectives: is the goal to produce wiser individuals or simply optimised learners who are “prompt ready”? Will learners develop social connectedness or face increasing isolation behind digital interfaces?

These reflections highlight a central tension in contemporary education: navigating between technological advancement and the preservation of depth, freedom, and identity in learning. The challenges posed are not merely technical but fundamental to the human experience of education.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://www.tandfonline.com/doi/full/10.1080/2331186X.2023.2236469> - This study highlights how AI writing tools can improve student writing quality, especially in content and organization, which supports the idea that AI can refine student essays but may lack authenticity.
2. <https://www.merion-mercy.com/about/blog/~board/blog/post/the-effects-of-ai-assisted-writing-on-education> - This article discusses the potential misuse of AI-assisted writing tools, such as generating entire essays, which aligns with the concern about outsourcing cognitive effort and using AI for entire responses.
3. <https://tech.asu.edu/features/artificial-intelligence-tools-asu> - Students incorporating AI tools into their writing process have reported improvements in their writing abilities, but educators are cautious due to potential cheating and plagiarism, reflecting the broader debate on AI's role in education.
4. <https://cee.ucdavis.edu/ai-student-writing> - Current research suggests AI can enhance student drafting and revision practices when used appropriately, which supports the idea that AI can be beneficial if integrated thoughtfully into educational processes.
5. <https://cte.ku.edu/ethical-use-ai-writing-assignments> - AI can be used for generating ideas, researching, and structuring writing, but there are concerns about students relying too heavily on AI-generated content, which aligns with the trend of outsourcing cognitive effort in educational settings.
6. <https://www.ft.com/content/thumb_b64a85b8-d321-4d19-ba89-09aab59b6e3d> - Although not directly available, articles like those by Financial Times, such as John Burn-Murdoch’s analysis, discuss declining cognitive skills in young adults due to technology use, which relates to the broader issue of cognitive impacts in educational environments.
7. <https://news.google.com/rss/articles/CBMikAFBVV95cUxOZ3ZrWUhmWjhsUjQ1c1Z4cFoyazRqTG14Q0pybG9CbXZCa1dDVjh3UkcxUkZvUXhoeUxkaUpCbTRYUVg5SG80b0IwUGQ0X1hkNldBbE9CUWl1cjllU0FVdHZlLVMzYkxRN28yaFhyNVlnTEVTcjRfV0VOaldOQUVha1QzczBhWVJRbjJMdHQ1ZGrSAZABQVVfeXFMTmd2a1lIZlo4bFI0NXNWeHBaMms0akxteENKcmxvQm12QmtXQ1Y4d1JHMVJGb1F4aHlMZGlKQm00WFFYOUhvNG9CMFBkNF9YZDZXQWxPQlFpdXI5ZVNBVXR2ZS1TM2JMUTdvMmhYcjVZZ0xFU3I0X1dFTmpXTkFFYWtUM3MwYVlSUW4yTHR0NWRq?oc=5&hl=en-US&gl=US&ceid=US:en> - Please view link - unable to able to access data