Tomorrow's Affairs
Analysis of today
Assessment of tomorrow

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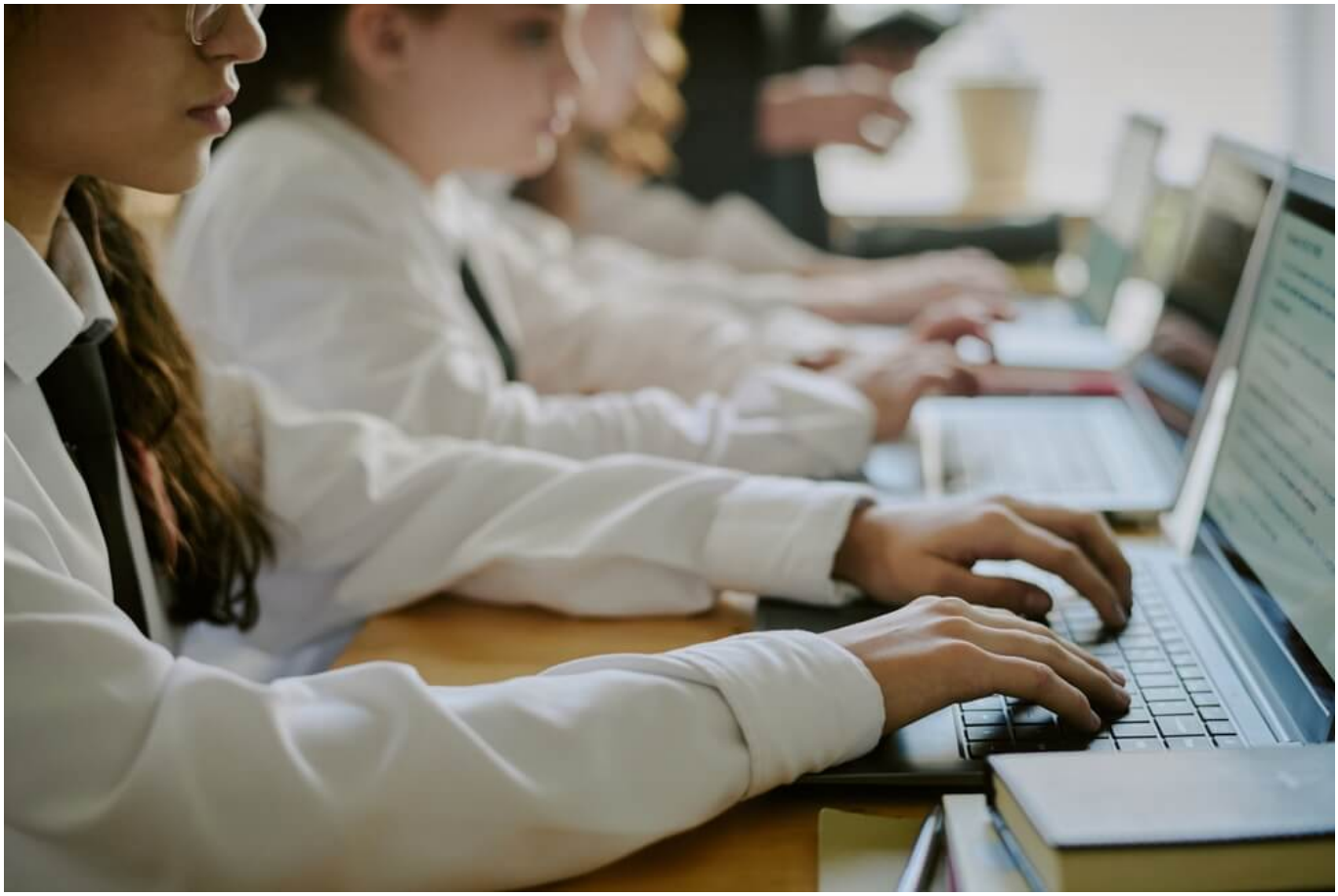
Will AI reduce the need for formal education?



The rapid progress of large language models (LLMs) over the past two years has led some to argue that AI will soon make college education, especially in the liberal arts, obsolete.

According to this view, young people would be better off skipping college and learning directly on the job.

I strongly disagree. Learning through hands-on experience is valuable and always has been.

But it works best when people have a good sense of which jobs and skills will be in demand.

If there is one thing we can be confident about, it is that the future of work is highly uncertain.

Advising young people to forgo college in favor of early entry into the labor market is misguided, at best.

Geoffrey Hinton, widely regarded as one of the pioneers of modern AI, once compared progress in his field to navigating through "fog": you can see what lies immediately ahead, but not what comes next.

Accordingly, the central challenge for educators is to prepare students to operate effectively in fog-like conditions.

The answer is not to train them for specific tasks that may soon become obsolete, but to make them as adaptable as possible.

Trying to prepare people for a fixed set of challenges, when those challenges are constantly changing, is a losing strategy. We want skilled drivers who can navigate unfamiliar roads and unexpected obstacles.

Return to fundamentals is imperative

From this perspective, education – and especially higher education – plays a more important role than ever.

Because we do not know which specific skills will be in demand in the future, a return to fundamentals is imperative.

Liberal education emphasizes how to think, rather than what to do. It trains students to reason, to read carefully, to write clearly, and to evaluate evidence. These skills will age far better than narrow technical competencies.

This does not mean ignoring technology. On the contrary, students must learn to work with AI.

But the goal should be to make them critical users and informed judges of AI tools, not passive consumers. It remains essential to teach basic mathematics, logic, and reasoning; to engage with foundational texts; and to learn how arguments are constructed and tested.

> The introduction of calculators and computers did not eliminate the need to teach arithmetic

These are the skills that allow individuals to stay ahead of rapidly evolving technology.

This principle raises two practical questions: what should we teach, and how should we teach it?

The first question is difficult and will inevitably generate debate. While there may be broad agreement on the importance of core concepts, the details will change over time.

Our experience with earlier technologies offers useful guidance. The introduction of calculators and computers did not eliminate the need to teach arithmetic.

Students still learn how calculations work, but time-consuming manual computation is now delegated to machines.

Similarly, spelling and grammar remain important, but software has largely replaced the need for endless drills.

Adjustment across many domains

AI calls for a similar adjustment across many domains. LLMs now perform tasks such as summarizing text or identifying main ideas – longtime staples of education – extremely well.

The same is increasingly true for programming, solving quantitative problems, and even drafting text.

Though these activities should not disappear from the curriculum, the goal should shift.

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Students need to understand the underlying concepts and logic, rather than mastering every step of the execution.

The students who will succeed are those who can use AI tools effectively to achieve well-defined goals.

It is the same with good management: success depends on setting priorities, structuring problems, and deploying available resources wisely. These are conceptual skills, not narrow technical ones.

Return to older teaching models

The second, pedagogical question concerns how learning is reinforced and assessed.

Understanding requires some practice, but AI makes it easier than ever for students to avoid doing the work themselves.

Even highly motivated students will sometimes be tempted to take a shortcut, especially under time pressure.

> Take-home essays, problem sets, and unmonitored exams are increasingly ineffective

We therefore need a major change in assessment. Take-home essays, problem sets, and unmonitored exams are increasingly ineffective.

They will need to be replaced by in-person quizzes and exams, oral evaluations, and problems solved in real time, whether on paper or at the whiteboard.

Such changes have far-reaching implications. They require in-person attendance, smaller classes, and more direct interaction between students and instructors.

In many ways, this would mark a return to older teaching models, reversing some of the scale and standardization introduced by earlier technologies. It could even usher in a new golden age for liberal-arts education.

But this model also raises serious concerns. It places greater responsibility on instructors, who must be willing to enforce standards and make difficult judgments. Institutions must support them in doing so.

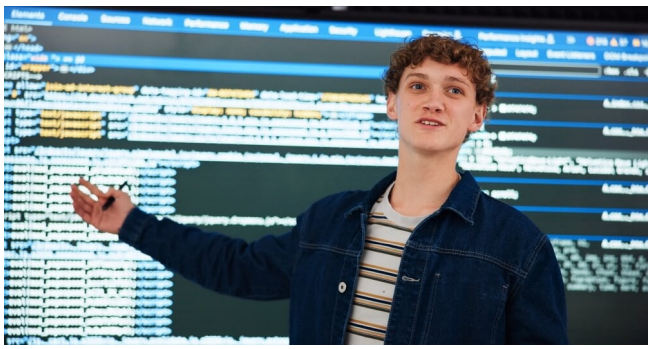
At the same time, evaluation based on personal interaction raises legitimate worries about bias.

Standardized exams have their flaws, but their biases are at least visible. Subjective assessment based on oral exams and personal interaction can be less transparent.

We will need more, not less, investment in education

Perhaps the most serious challenge concerns inequality. Small-class, highly personalized education is expensive.

Elite institutions may be able to provide it, but large public universities will struggle.



As AI becomes widely available, educational quality will depend less on access and more on expectations and enforcement

Just as remote schooling during the pandemic widened educational gaps, an AI-driven shift toward intensive in-person teaching could disadvantage those who rely most on public education.

Some argue that AI itself will reduce the need for formal education by providing information and personalized guidance on demand.

But this assumes that users know what to ask and how to interpret the answers.

The most motivated or gifted individuals may thrive in such an environment, but they would do so regardless. Formal education matters most for the broad middle.

If AI is to benefit society, we will need more, not less, investment in education. AI will displace jobs, but it will also create new ones. Education should be among the sectors that expand.

As AI becomes widely available, educational quality will depend less on access and more on expectations and enforcement.

Smaller classes, more instructors, and greater personal interaction are costly, but the productivity gains promised by AI make such investments both feasible and worthwhile.

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