EDUCATION & TECHNOLOGY

The Possibilities and Anxieties of *Growing Up with AI*

What happens when asking a machine becomes as ordinary as asking a teacher or a friend?



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ABSTRACT

For teenagers today, asking an AI chatbot may feel as ordinary as asking a teacher or a friend. Drawing on recent surveys, a case at Brown University and research on critical thinking, this article weighs the real possibilities AI opens for learning against the value of intellectual struggle and human companionship, and argues that young people must learn when to use AI, when to question it and when to put it aside.

KEYWORDS Artificial intelligence · Education · Adolescence · Critical thinking · Companionship

There was a time when not knowing something required a little patience. You asked your teacher, searched through a book, called a friend, or simply remained confused for a while. Sometimes you spent an entire evening trying to understand one difficult idea. Today, a young person can open a phone, ask an AI chatbot, and receive an answer within seconds.

For those of us who grew up before artificial intelligence became part of everyday life, this still feels remarkable. But imagine being thirteen today. AI may not feel remarkable at all. It may simply be another part of growing up, like smartphones, YouTube or Instagram. You can ask it to explain your homework, translate a sentence, suggest an idea for a drawing, solve a mathematics problem, help you write an email, or simply talk to you when you are bored.

This is why the conversation about young people and AI cannot simply be about whether AI is good or bad. It offers possibilities that previous generations could hardly imagine, but it also raises a difficult question: what happens when a generation grows up with machines that can not only provide information, but also write, create, advise and converse with them?

A CHANGE ALREADY UNDERWAY

The change is already happening quickly. A 2026 Pew Research Center survey found that 57 percent of American teenagers had used AI chatbots to search for information and 54 percent had used them for schoolwork. Almost half had used them for entertainment. One in ten teenagers said they were using chatbots to do all or most of their schoolwork.

There is an exciting side to this. Think of a student who cannot afford private tuition but needs someone to explain algebra again. An AI tutor can explain it once, twice or ten times without becoming impatient. A student learning another language can practise without feeling embarrassed about making mistakes. Someone living far from a good library or university can ask for an introduction to a difficult subject before reading further. The OECD's 2026 work on digital education recognises this potential, while also making an important distinction: simply completing a task successfully with generative AI does not necessarily mean that learning has taken place.

That distinction takes us to the difficult part of the story.

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>
> OECD, 2026

THE VALUE OF THE STRUGGLE

Imagine two students who have been asked to write an essay. One spends an evening reading, becomes confused, writes a bad first paragraph, deletes it, tries again and finally produces something imperfect. The second asks an AI chatbot and receives a beautifully organised answer in twenty seconds. The second student has certainly saved time. But the first student has done something else. While struggling with the essay, they were learning how to think. They had to decide what was important, connect different ideas, find words for something they only partly understood and perhaps even change their mind along the way.

We normally look at the finished essay and call that the student's work. But much of the real intellectual work may have happened during the frustration that came before it.

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WHEN THE SCORES DON'T ADD UP

A recent case at Brown University shows that this is no longer only a hypothetical problem. In 2026, economics professor Roberto Serrano became concerned after the results of a take-home, closed-book midterm were unusually high. The median score was 98 percent, and 40 of 86 students received a perfect score. Serrano said that his previous midterm averages had generally been between 65 and 85 percent. He also noticed unusual similarities in some answers and suspected that AI had been used despite the rules.

For the final examination, he returned to an in-person format. Among students who completed both assessments, subsequent reporting found that the average fell from about 96 on the take-home midterm to about 49 on the in-person final. The difference alone cannot prove which students used AI, and researchers later cautioned against treating the scores as definitive evidence of individual cheating. But the experience was enough for Serrano to change how he assessed students: he decided to stop using take-home exams and to remove homework from the graded part of his courses. Other professors at Brown also raised concerns about whether take-home assessments could still be trusted in the age of generative AI.

The Brown case points to something larger than cheating. For generations, teachers have given essays and homework because the work students submitted was assumed to represent, more or less, what they understood. AI makes that assumption much harder. A student may now submit an excellent answer without having gone through the intellectual process required to produce it. Universities therefore face a deeper question: if we cannot easily distinguish between what a student knows and what a machine can produce for that student, how should we evaluate learning?

THINKING WITH US, OR FOR US?

Research is beginning to raise similar concerns about thinking itself. A 2025 Microsoft Research study involving 319 knowledge workers found that greater confidence in generative AI was associated with less critical-thinking effort, while greater confidence in one's own abilities was associated with more critical engagement. The researchers did not conclude that AI simply makes people less intelligent. Their findings suggest something more complicated: AI can change where and how our thinking happens.

Perhaps this is the real educational question. **AI can help us think, but it can also think for us if we allow it to.** The difference between the two is not always obvious.



Asking a machine. For many teenagers, an AI chatbot is now as close as a textbook. Illustration: U-Talk.

A FRIEND AT TWO IN THE MORNING

There is another side of growing up with AI that may be even more personal than homework. Young people are

beginning to talk to machines not only for information, but also for companionship. A 2025 Common Sense Media survey found that nearly three-quarters of American teenagers had used AI companions, while about half used them regularly. Around one-third of teen users said they had chosen to discuss serious matters with an AI companion instead of a real person.

It is not difficult to understand why. Human relationships can be difficult. Friends sometimes do not reply. Parents may not understand. Teachers are busy. People judge us, interrupt us and occasionally say exactly the wrong thing. A chatbot, by contrast, can be available at two in the morning. It listens patiently and responds immediately.

For a lonely teenager, that may genuinely feel comforting, and we should not dismiss that need. But we should still ask what happens when artificial companionship becomes easier than human companionship. Friendship is not only about having someone listen to us. It also means learning to listen to another person. Relationships require disagreement, compromise, patience and sometimes disappointment. These uncomfortable experiences are also part of growing up.

57%
of American teens have used AI chatbots to search for information
Pew Research Center, 2026

1 in 10
teens say they use chatbots for all or most of their schoolwork
Pew, 2026

~3 in 4
American teens have used AI companions; about half use them regularly
Common Sense Media, 2025

96 → 49
average score: take-home midterm vs in-person final, Brown University
2026

POSSIBILITIES WORTH PROTECTING

At the same time, it would be unfair to tell the story of AI only through fear. AI is already giving young people remarkable possibilities. Someone who cannot draw can experiment with visual ideas. A student can practise another language, learn basic coding, explore music, brainstorm a project or receive explanations adapted to their level of understanding. For students who lack expensive educational resources, good AI tools may open doors that were previously closed.

The challenge, therefore, is probably not to keep young people away from AI. That may already be impossible. AI will increasingly become part of their schools, universities, workplaces and creative lives. The more important task is teaching them when to use it, when to question it and when to put it aside.

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Perhaps students should learn how to ask AI a good question, but they should also experience what it means to struggle with a difficult question themselves. They can use AI to improve a paragraph, but they should first know the frustration of trying to find their own words. They can generate an image in seconds, but there is still value in drawing something badly with their own hands. And they can talk to a machine, but they should understand that receiving an answer is not necessarily the same thing as being understood.

The generation growing up today may be the first that cannot clearly remember a world before intelligent machines became part of ordinary life. Their challenge will not simply be learning how to use AI. It will be learning something much harder: what to ask machines to do for them, what to continue doing for themselves, and **which parts of being human should never be outsourced.** ■