# Can AI Replace Teachers In Schools?

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Summary: What will happen if tomorrow artificial intelligence replaces teachers at school? Such a future is possible today when AI technologies have taken a big step forward. But artificial intelligence still has to learn from humans, and its functionality is limited.

## AI Is Changing The Education Industry

We asked the experts what they think about AI in educational processes:

### Peter Luntz, ILS International Language School Milan

The way we learn and communicate in the 21st century has changed. Digital competencies have become the norm in many life and work settings.

Looking back, we see that writing implements, the printing press, computers, and the telephone revolutionized how we communicate and how we learn. Tools often start as a way to accomplish a task, but then they can create a new way of communicating once they establish a point of no return. So teaching methods that do not take digital learning into account will risk becoming obsolete. They may even alienate students, especially younger learners, who come into educational settings with a new set of expectations.

#### Technology Shaping The Modern Classroom

Technology must give added value, otherwise, it is just smoke and mirrors. It is always a means to an end, not the end itself. Technology can cater for different learning styles. Providing information in various formats allows students who are visual, auditory, experiential, or reflective to interact with resources at their own pace. Blended learning approaches allow students to have a group classroom moment and individual moments online or on electronic resources that allow for increased individualization of the learning experience.

#### Using Technology To Improve Communication In The Classroom

Technological innovations like online learning platforms allow certain communications to happen outside the classroom (asynchronous communication). This has the advantage of permitting student-teacher and student-student exchanges that would be impossible in the classroom. This could allow teachers to extend the discussion beyond the time constraints of the classroom. It also allows students who are less likely to speak up in the classroom the chance to speak out online.

### Diana Wilson, ProFile Sports LLC Phoenix AZ

I do not think that AI will ever replace good teachers, but it will become a great teacher's aid, enabling teachers to do better what they do best. As machine learning advances, human contact and the approval or the real people in one’s life will be even more important. As human contact becomes more rare, students will not care what artificial intelligence thinks of them.

#### AI may become a fantastic babysitter!

We live in a wired world now. We switched to AI automated ultra-high-definition tracking cameras to live stream sports. If we were not there recording games, someone else would be trying to film their athlete's game on their cellphone instead of enjoying the game.

Education and sports go hand in hand. AI will change the classroom for the better. In athletics, automation and an algorithm that can distinguish between a baseball and a bird were a breakthrough in sports videography for us. Now we can schedule our cameras from one centralized studio to control various venues around the state and eventually anywhere in the world to turn on automatically, track the action, zoom in and pull back just as if there were a skilled and smooth camera operator manning the helm.

### Joel McLeod, Stadivm

Integrating AI into the classroom is already being done today, with providers like Microsoft EDU releasing apps like Presentation Translator, which creates real-time subtitles of what the teacher is saying in multiple languages.

Mostly, education systems worldwide have an established curriculum that teachers repeat year after year to different cohorts. With AI to augment the roles teachers have, a wider variety of material could be covered more easily without the need for teachers to complete additional research.

If an artificial intelligence system took over the role of teaching students completely, we would likely see a continuous analysis of student performance data, which could then adapt the curriculum each year taught to students.

Because of the significantly larger capacity of an AI system to research, process, and teach different information, the AI super teacher could likely optimize how to find and present information to lead to the highest grades amongst students.

### Dariya Bogretsova, Leobit

Due to the evolution in technology, manual working things are now replaced by automated machines. This makes our work easier and less time-consuming. People are trying to adopt new things. Recently, AI is a trend. AI is used in different fields like data science, cybersecurity, medical, stock market, eCommerce. Even in the education sector, smart learning classes have been introduced, which is basically digital education. Some say that teachers cannot be replaced by AI as teachers help students better understand subjects. But if AI replaces teachers, the cost of teachers will be cut down (i.e., you don’t need to pay any pension or salary). By seeing both the pros and cons, it is not all about gaining knowledge, understanding of students is also important, which only teachers can do.

### Kentaro Toyama, University Of Michigan

In the short and medium terms, no. AI for personalized instruction has been worked on since at least the 1960s when Patrick Suppes at Stanford proposed that computers would excel at customized instruction. An early success was Carnegie Mellon's Geometry Tutor project which led to Cognitive Tutor, one of the more celebrated AI systems for math instruction. But rigorous studies of such systems fail to show consistent advantages over good human teachers.

AI fails to be a super teacher because the crux in education is \*student motivation\* to do what are years of mental calisthenics. That motivation comes from social interaction that no current or near-future technology can deliver. Human super teachers are adept at a range of motivational tactics—from encouraging to inspiring to rewarding to scolding—that students take seriously. Even young kids quickly realize that a computer is a computer, that its rewards and penalties can be ignored with no social consequences.

In the long term, it's hard to say. If AI—and more robotics—reaches a point where we have emotional responses to robots similar to how we interact with other people, then a humanoid robot might act like a good teacher. If that happens, then robots could potentially be super teachers. But that's a long way off.

### Michael Russell, Ratchet Straps USA (Bellville)

AI can become a super teacher at schools through the vast knowledge that is already available through a simple Google search to find the best ways to teach others through visuals. As machine learning becomes more and more rapid with vast amounts of knowledge, I believe we will see an impact inside of our schools first hand with simplifying content and using AI to judge what methods students learn best and comprehend material best with.

The ability to use an algorithm based on Method A vs Method B of teaching students based on prior learning patterns could greatly shape almost any student into a smarter learner with minimal effort required. This can be done through image testing, video learning, or even plain content learning techniques to determine what works best for the students.

### Kathryn Starke, Urban Literacy Consultant, Author, Founder Of Creative Minds Publications, LLC

AI a super teacher? As a former elementary school teacher and urban literacy specialist, I have watched trends in education change, specifically in teaching, reading instruction, and using educational technological applications. While an abundance of technology is added to the elementary school curriculum, they are not all effective. Many teachers are so overwhelmed with the mandate to use tech in every lesson that the actual teaching of the lesson is often a second thought.

Children are now coming to kindergarten knowing how to use an iPad and laptop but unable to use a pair of scissors or correctly hold a pencil. A balance should be created between using technology, collaboration, real books, and hands-on learning in the classroom. There is a role for AI in the education sector that has not been thoroughly explored. AI can help teachers save time, provide children with differentiated instruction, and communicate with parents in real-time.

The possibilities are endless, but the reality in education is that nothing is more important than the classroom teacher. A super teacher is a person with degrees and expertise in education with the passion, empathy, and creativity to understand the importance of building relationships and reaching every child. However, the capabilities of AI can help a teacher become a super teacher for our children.

### Blair Heckel, Data Science Dojo Redmond, WA

Computer-based learning entails gaining knowledge via reading or videos. For AI to become a super teacher, it must develop cognitive and linguistic abilities to connect and adapt to the learner's needs. Compare this with the simplistic ability of AI to identify a weak area in a human student through practice exercises.

Regular research is being conducted in the space of building linguistic ability in AI and building AI based on an understanding of the human brain. Based on these advances, AI will likely soon become an all-encompassing (in terms of breadth and depth of knowledge) and cognitive super teacher.

### Tom Chivers, ProPrivacy

AI teachers have the potential to teach 24 hours a day, so they can educate students in various time zones. Because AI will never tire, it will never make errors or fail to express a point coherently.

The ability for students to constantly communicate with AI and ask questions—even when they leave the classroom and go home—will give rise to constant one-on-one teaching. This level of teaching stands to revolutionize education and could lead to massively improved results.

A lack of personal emotions will allow AI to teach without prejudice, meaning that all students receive the same level of care and attention. However, there is a danger that the data used to develop AI could re-express prejudices within human inputs. Thus, development will need to be handled correctly for AI teachers to function without error.

A lack of emotional understanding could be a drawback if an AI teacher cannot read a student’s inability to process information, leading to frustration, sadness, and other normal human emotions. However, as time passes AI will likely become better at reading human emotions to provide teaching and emotional support when needed.

### Jon Hayes, Authority Hacker

AI cannot replace teachers at schools. However, there are some ways AI could support the teacher's work and help them do a better job.

The idea of AI replacing teachers may sound appealing on some levels because teachers are humans, they get tired, they are expensive and in increasingly short supply, while robots do not require pay, bonuses, rewards, health insurance, etc. But in reality, this is not as easy as one may think. Education is not just about acquiring knowledge; it is about interactions and shaping young minds. I probably agree with robots knowing absolutely everything, they might give arguments and help you in problem-solving, but they will not be able to bring real human interaction. While teachers can explain to you, again and again, they will try to convey the topic to everyone and can’t leave until they give a satisfactory answer. They will come up with different case studies, lifetime experiences, and invent stories to show the application of the topic. Teachers inspire students to think and innovate things, find out solutions to problems, something AI cannot do.

AI has come a long way; there's no denying it. And it's being used more and more in the educational sector. It's true that AI won't have to take breaks and will always be receptive to questions.

The problem is that when we look at what humans offer that AI can't, we see things that AI simply can't provide. It's that elusive human element. That quality makes adults continue to talk about their favorite teachers decades after they've left the class. AI will not ever be able to capture that element.