



AI in High School Education: Why It May Not Be the Best Fit

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In today's technology-driven world, we cannot avoid using AI in high school education. **Teens** are aware of the Internet and its vast resources. Students often use the Internet for school projects and assignments, but is it safe for them to rely on **AI (artificial intelligence)**? What exactly is AI, and why is everyone talking about it? From the term "**artificial**," we can infer that AI involves machines or something non-human. But why do people have different opinions about AI, especially in education?

My views as a tutor

As an online **biology** tutor, I frequently encounter students from various grades working on different topics, assignments, and projects. While it might be simple to direct them to AI for quick answers, I am truly helping them learn.

Typical test case

For example, in biology, understanding a topic like **cell biology** requires more than just reading a definition. A student might ask AI what a cell is, and AI might correctly respond that a cell is the basic unit of life. Does this help the **students** truly understand the concept? Many students need more detailed explanations, often with diagrams. As a tutor, I can gauge when a student is confused, and accordingly, I adjust my teaching approach. AI, however, lacks this ability to **adapt** based on a student's understanding.

Intuitive use of AI in High School Education

While I agree that AI provides accurate information and helps scientists solve complex problems quickly, should we rely on it as a primary teaching tool? My teaching method is based on the scholastic approach, which encourages students to think critically and find answers on their own. Instead of directly providing answers, I guide students through the problem-solving process.

Students will search for another membrane in a **eukaryotic** cell and will understand that eukaryotic cells lack a cell wall.

Result

In the end, the students will be able to find the 3–4 differences between prokaryotic cells and eukaryotic cells.

Improved method for slow learners

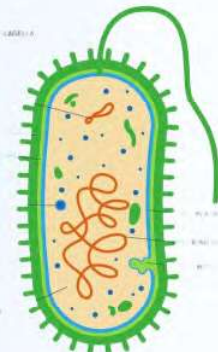
The scholastic method is also unsuitable for slow learners because the guiding questions may confuse them. However, as a tutor, I would use diagrams and ask guiding questions, encouraging students to discover the answers themselves. This process fosters more profound learning and critical thinking.

It's true that the **scholastic method** may not work for every student, especially those who struggle with complex concepts. In such cases, it's the teacher's responsibility to adapt the approach, ensuring **students** grasp the material. Can we expect AI to provide this level of personalized support? AI is designed to deliver quick, direct answers, but it lacks the flexibility to change methods based on individual learning needs.

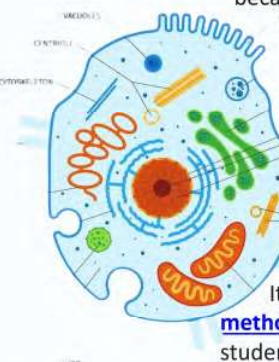
Role of internet in self-study

Parents, teachers, and researchers all understand the value of **self-study**. However, in today's busy world, with both parents working and teachers **overwhelmed** with

PROKARYOTIC CELL



EUKARYOTIC CELL



For instance, when students ask about the difference between **prokaryotic** and **eukaryotic** cells, AI might instantly provide 3–4 differences.

Tutor's way of explanation

However, as a tutor, I will share a few diagrams of **prokaryotic** cells and **eukaryotic** cells and will ask students what differences they noticed in these two structures. I will assist students by posing guiding questions. For example, I will ask students if they find two outer membranes in a **eukaryotic** cell.

responsibilities, the **internet** often serves as a source of encouragement for students seeking help. As **AI** and Internet access become more prevalent, it's likely that students will rely more heavily on these tools. I only hope that AI will not replace schoolbooks altogether.

Another concern is the notion that to develop **AI** in high school education requires only the **brightest** minds—those with top grades and academic records. What about average or above-average students? If these students constantly rely on **AI** for answers, are they getting a fair chance to develop their own **intelligence** and creativity? Imagine a scenario where students find it too time-consuming to read entire chapters and instead turn to AI for quick answers. This reliance could diminish their ability to think critically and solve problems on their own.

Closing remark

We cannot expect that **students** will suddenly stop using the **internet** or **AI**, but perhaps future technology could include safeguards—such as recognizing a user's age and limiting access to certain resources—to ensure that young learners are not over-relying on AI.

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