

Prompt: How can A.I literacy programs and A.I free environments help students build skills such as problem solving or critical thinking?

By Aashriya Das

Did you know that LLMs like ChatGPT took *five days* to reach 1 million users. Compare that to Instagram's 2.5 months or the iPhone's 74 days (Source D). A.I. is taking the world by storm faster than even Instagram. Why do you think that's the case? Naturally, ChatGPT's ability to generate responses in mere seconds is appealing for a variety of reasons; one of which is to avoid the long and tedious hours of work given to students by the American Education System. However, doing so neglects the purpose of this work, which is, to reinforce the ideas taught to students and teach them how to think critically and effectively. Therefore, as we continue to navigate the spread of A.I, A.I literacy can have a great impact on our student's learning. Through A.I literacy programs and A.I-free environments, it is imperative that we educate our students on the negative effects A.I has on their learning, encourage them to consider asking for help from peers and teachers rather than A.I, and discuss with them the loss of creativity and voice A.I can cause.

A.I literacy must go hand in hand with A.I-free environments to protect against a phenomena known as offloading. Offloading refers to the transfer of tasks from our brains to tools such as calculators, notebooks, and yes – A.I. Not all of these tools are harmful for us; in fact, they make our lives much simpler. Calculators can free students from basic number crunching, allowing them to focus on higher level problems (Source G). Notebooks can reduce the amount of energy required to remember the concepts, serving as a reference guide for

students if they are struggling with a concept. The issue with A.I is that, in addition to these harmless purposes, LLMs can offload tasks that are crucial to learning. Learning is a process, and it is crucial for students to go through this process. Moreover, students need to learn critical thinking, a skill that is both difficult and crucial, a skill that A.I can easily offload. For this very reason, many institutions are switching to A.I-free environments and a type of exam known as a “Blue Book Exam” – an exam that expects students to have “...oral examinations, required office hours and other assessments that call on students to demonstrate knowledge in real time...” (Shirky). Losing a key tool in their workflow, students adapting to the switch are restless, claiming that “...[the institution wants them] to fail...”; a reaction serving as a testament of the American education system’s failure to create A.I literate students who possess the ability to think independently. Essentially, A.I Literacy must teach students how to use A.I. strategically in the real world while A.I-free environments ensure that students don't have access to A.I for critical tasks.

Additionally, touching upon A.I tutors like MagicSchool and PhotoMath (often marketed as helpful alternatives to real tutors), we are not currently at a point where they are ready to be used freely in education. Key leaders in the A.I. industry such as Robert Wong, Google’s director of product management for education, claim that their tools are “...invaluable for students...and suggested that cheating had less to do with A.I than with [student engagement].” (Source B). However, a professor at NYU’s Abu Dhabi campus found that, despite warnings about offloading, many students “...used AI to write their papers anyway...[Even] the good students...were using A.I to avoid work...” (Shirky). This professor’s experience suggests that

the A.I epidemic has less to do with cheating and disengaged students and more to do with the nature of these LLMs. To add, a vice provost at NYU, Mr. Shirky notes that even if a university were to supply students with A.I tutors, that does not stop them from using non-tutoring LLMs. Furthermore, A.I detectors are not advanced enough to accurately detect A.I content that's been lightly edited (Shirky). It appears that A.I is simply too tempting for students to be trusted with them.

Lastly, A.I removes the humanity and the creativity from student created work. Take Olivia Han, a 16 year old who's writing voice was slowly replaced by Chatgpt. She realized that the "...more she relied on [Chatgpt], the less [she] challenged [herself]." (Source C). Without challenging her mind, Olivia realized that she could not rely on herself anymore; she relied on Chatgpt. Her essays became more robotic, less human. There was no need for her to use her voice, since using the A.I was efficient, beneficial, and most of all, it got her a good grade.

If we are to move forward in a world of LLMs, we must change our systems and ensure students are educated on A.I.

Citations

Source B: Goldstein

Source G: Agarwal

Source D: Industry4

Source C: Han

Shirky: Students Hate Them. Universities Need Them. The Only Real Solution to the A.I.
Cheating Crisis. (Shirky)