



AI in Education

By Dr. Mark Taylor, Christian School and College/University Representative

Have you heard about AI? Is it a new steak sauce? (Bad joke!) AI is short for artificial intelligence. “Artificial intelligence (AI) is the theory and development computer systems capable of performing tasks that historically required human intelligence, such as recognizing speech, making decisions, and identifying patterns. AI is an umbrella term that encompasses a range of technologies, including machine learning, deep learning, and natural language processing NLP).”¹

There is a form of AI you probably have heard about, ChatGPT. “The *GPT* in ChatGPT is short for generative pre-trained transformer. In the field of AI, *training* refers to the process of teaching a computer system to recognize patterns and make decisions based on input data, much like how a teacher gives information to their students, then tests their understanding of that information.”²

All This New Technology!

Technology has advanced much during the 43 years I have been involved in education. When I started my education career, I was still using a typewriter,

periodical indexes, 16 mm projectors, chalkboards, filmstrips, cassette players, and overhead projectors. We did not have online capabilities. We did not have personal computers, educational software, search engines, cell phones, etc. I could mention much more!

Technology is advancing at an incredible pace. There are incredible and helpful technologies that help society in so many ways, including advancements in medicine, transportation, energy, communication, robotics, etc. These technologies have advanced to where we are now talking about AI. How are we to manage and appropriately utilize the advancements and tools of AI in education?

Understand what AI is and what it encompasses

At the outset of this article, I shared a definition of AI and a form of AI known as ChatGPT. Common examples of AI in everyday life include things like facial recognition, self-driving cars, online shopping, cybersecurity, digital personal assistants, smart technologies for the home, Siri, banking, text editing, etc.

Two more recent chat-based AI are now available from two major software programs used in educational settings. Google now has BardGPT (bard.google.com). Microsoft now has BingAI (access through the Bing search engine). You should know that I recently set up an access to Google's Bard. I was tempted to have Bard GPT write this article.

Understand the potential benefits to education

Akash Takyar wrote an informative article for the Leeway Hertz software company website titled, "Building Smarter Classrooms: The Benefits and Use Cases of AI in Education."³ He lists six major benefits of AI in education:

1. Predictive analytics
2. Enhanced student engagement
3. Efficient administrative tasks
4. Instant feedback and support
5. Data-driven insights
6. Inclusive education

He also discusses some future AI trends in education. They include increased personalization; seamless integration with learning management systems (LMS); gamification; augmented and virtual reality; predictive analytics; automated grading; natural language processing; smart content.

Understand the potential dangers to education

Concerns that I and others have include excessive costs; students become lazy and depend on AI to do their thinking for them; ethics and morality are difficult to incorporate; takes away from creativity; and data security. I am really concerned about critical thinking being impacted negatively too.

Develop guidelines for use of AI or develop an AI policy

Schools need to develop guidelines and policies to address the potential dangers or concerns

regarding AI. Students are already using AI, and they may use it to get out of doing classwork. For example, instead of learning how to write a paper, students can tell ChatGPT to write their paper or speech.

Some innovative teachers are already incorporating AI into their teaching. I would recommend an article, “How to Enact an AI Policy in your K-12 Schools” by Bryan Krause⁴ to help you create fair and thoughtful policies. Also, the U.S. Office of Educational Technology (<https://tech.ed.gov>) has some excellent resources on AI and some helpful recommendations to help you create your policy. And, the White House has published its Blueprint for AI Bill of Rights ([whitehouse.gov](https://www.whitehouse.gov/blueprint-ai)).

Concluding Thoughts

If you want to learn more about AI, Coursera (<https://coursera.org>) has some free courses online.

I read about a pastor of a Methodist church in Texas who decided to use ChatGPT to create an entire church service. The pastor wanted to understand AI and to see if it would have any role in the church. ChatGPT put together all the elements, including his sermon and the children’s message. There were some positives and negatives but there was one thing that ChatGPT could not do: AI cannot replicate the empowerment of the Holy Spirit.

Sources:

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