Artificial Intelligence is Transforming Education

By Meg Ferguson, Executive Staff Officer, Professional Learning

Whether nervous or excited to have artificial intelligence infiltrate your classroom, "AI in Lesson Planning and Content Creation (is) the co-teacher you deserve," declares Abigail McKeag, in *An Educator's Guide to AI in the Classroom*.

After attending tech workshops this summer and hearing great debate about the pros and cons of AI at the NSTU Leadership Institute, my fears turned more to anticipation. The takeaway about the use of artificial intelligence in education, is that it be used as an idea generator to be critically analysed, added to, and edited to suit your needs and better represent your voice. These tools come with concerns, however, the benefits, including saving time, further engaging students, providing new ideas and approaches, and skill development, can outweigh the cautions.

Saves time + broadens programming

A new subject listed on a Notice of Assignment often means additional hours of work, but now there are sites/apps that can help alleviate your entire workload, by doing the following:

- Creating a foundation for programming for a unit, a lesson, an activity
- Inclusive Education: Suggestions for accommodations and individualized plans
- Assessment: Providing feedback for or from assessments
- Design time: Saves formatting time by creating slideshows or games
- Communications: Create newsletters, tweets, email to parents
- Field trips: Ask for itinerary suggestions for specific town/city
- Language translation apps to communicate with students and families

Artificial Intelligence tools can support teachers not only through data analysis, but provide diverse, new strategies for student learning, planning for unfamiliar courses, aid communication, and so much more, freeing up time to focus on student learning and ultimately improve work/life balance.

Potential challenges + warnings

- Intellectual property – if you are having AI review your essay /research/work, does it belong to you any more?
- Privacy: Ensure student data and privacy are protected
- Dependence
- Ethical concerns, misuse of AI for cheating
- Accuracy of information
- Social justice through accessibility

Addressing these concerns should be done through responsible AI implementation, ethical guidelines, and professional learning

opportunities, not to mention time to explore the tools with personnel to advise. Banning students from using AI is not the answer. "It's time to rewrite the rulebook, to better prepare our students to capitalize on the potential of AI, while reserving the principles of integrity and fairness in their learning experiences," continues McKeag.

Student uses of AI for learning

- Accessibility Tools: help students who experience barriers to communicate ideas and outcomes
- Study tool: reviews, analyse weaknesses; teach information in a new way
- Extra Help: tutoring systems for complex concept explanations, virtual assistants to answer questions
- Language translation apps to support communication with peers
- Testing their own reading out loud, getting feedback, striving for higher scores
- Generate ideas to launch their work

More and more students are struggling to get started on their work, AI can combat inertia. By providing examples of how to use these tools effectively and responsibly in class, students can gain not only skills but more confidence in their academic career.

Using AI in the classroom

- Class vs AI: one teacher had the class write haiku poems anonymously, plus one or two computer-generated ones, read them aloud, had students vote. First round, AI won, next round, AI came in 4th
- Real-time language translation
- AI generated content like discussion prompts, polls, quick group quizzes
- Classroom management systems
- AI Chatbots for students to seek clarification on the topic of the day
- After using AI for a few activities, have students share how AI supports their learning

These tools can create a more interactive, novel (while it's still new) learning experience for students.

Questions to consider

- How can I assess an outcome and make it un-AI-able?
- How can I include AI during a lesson to make it more dynamic?
- How can I have students compete against AI?
- How can I include the use of AI as a support tool in their work?

While we ride this new evolution in education, it is worth investing the time to learn its uses and take advantage of valuable time saved, not to mention raise student engagement. New concerns will most likely surface and be dealt with as we go. Connect with colleagues and find professional learning experiences that can provide invaluable guidance on leveraging AI tools for the benefit of both educators and students.

Please share with colleagues how you are using AI so others can learn even more uses!

Resources

McKeag, A. (2023). *An Educator's guide to AI in the classroom: The Transformative Power of AI in Education, How to Use AI in School, K-12 Classroom Lesson Plans, and Answers to Common AI Questions.*

Murphy Kelly, S. (2023). Teachers are adapting to concerns about a powerful AI tool. *CNN Business.* https://www.cnn.com/2023/01/19/tech/chatgpt-teachers-adjusting/index.html

Sharma, S. (2023). Guiding students to assess the merits of artificial intelligence tools. *Edutopia.* https://www.edutopia.org/article/teaching-students-use-ai-tools/