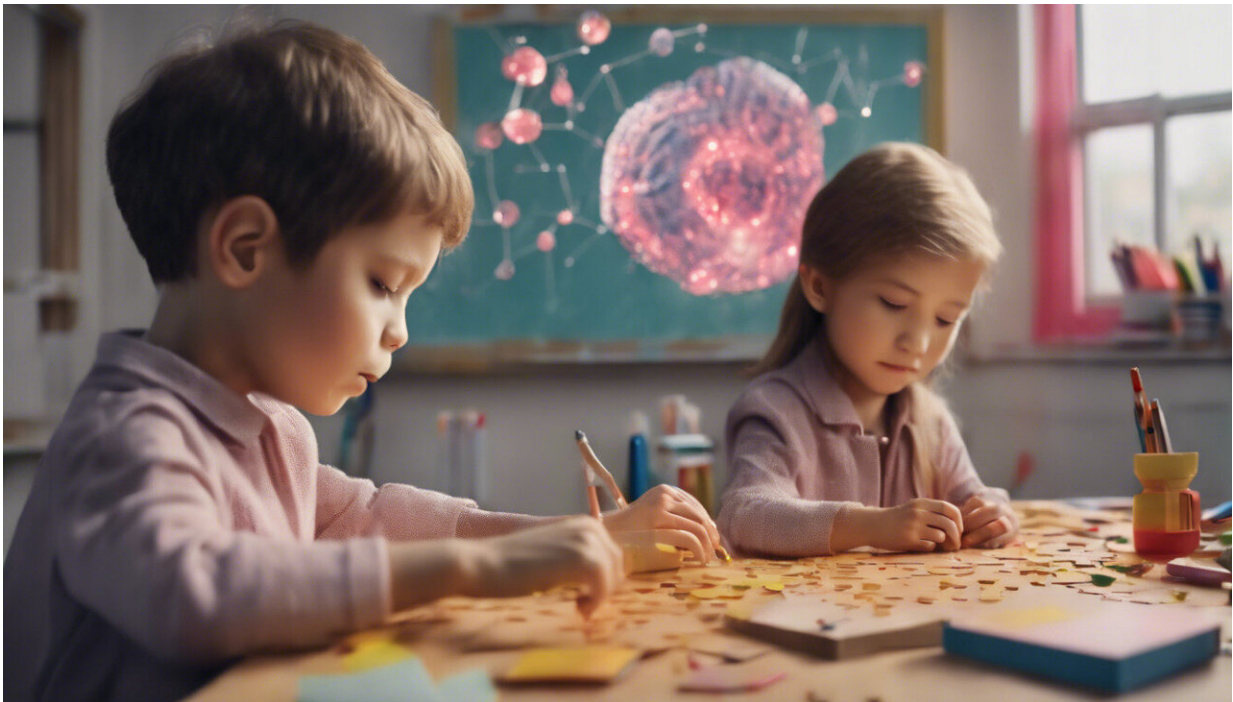


AI art generators have a place in K-12 classrooms, say researchers

February 20 2024, by Geoff McMaster



Credit: AI-generated image

Making visual art with the help of artificial intelligence could be a great way to teach kids about the ethics of the ubiquitous technology, says an education professor at the University of Alberta.

Today's K-12 students live in symbiosis with AI more than previous

generations could have imagined. Algorithms permeate almost every facet of their lives, from Google searches to the algorithms that select their music, films and TikTok videos—influencing the choices they make and the way they see the world.

But creating art is one way to disrupt that invisible influence, or at least help students more fully understand what algorithms do "behind the scenes," says Patti Pente, an artist and professor in the Faculty of Education.

"Canadian teachers and students today are AI-enhanced cyborgs—they just don't realize it," she and her co-authors Cathy Adams and Kenzie Gordon write in an article recently published in *A Fine FACTA*.

Pente prompts her own student teachers to see humanity as a new breed of "posthuman" hybrid beings whose identities are partly constructed by AI. The idea of humanism—inherited from the European Enlightenment—assumes we have sole agency to act upon and manipulate the world. Posthumanism, however, sees that relationship as reciprocal, and humanity as "dynamically formed by the materials of our environment as we influence them," write Pente and her co-authors.

"It helps avoid oversimplified, deterministic approaches to ethical quandaries."

In teaching students to make art, Pente recommends critically "collaborating" with AI image generators such as Dall-E 2. Made by OpenAI—the company that developed ChatGPT—the generator uses an [image data](#) set to produce new images and art from text descriptions called prompts.

Depending on the age of the students, a teacher might begin by questioning how algorithms work, how images are selected from a given

data set, and what inherent biases might determine that selection. What does the technology mean for copyright and [intellectual property](#) or for creating "deepfakes" that spread misinformation?

As with Google or any other AI platform, "we tend to get so used to using it that we stop thinking about how it works," says Pente.

"I would love to see students use generative AI—with prompts around particular topics—but also work with hands-on materials," she says. "We don't want to lose that because there's lots of wonderful learning that happens when kids are immersed in making art with their hands."

For example, a student might write a story, insert segments of that story into an image generator, and then, based on the images it comes up with, create new artwork with traditional materials such as paint. Teachers would then have students think about ethical issues that arise from their work.

"At the heart of it, we want to allow students to be creative and have fun in the process," says Pente. "Teachers would decide how much of the underlying theoretical issue would be woven into the lesson."

Seeing AI as a collaborator in the [creative process](#)—rather than just a tool—gives students "a window through which they and teachers can more deeply consider their evolving subjectivity in a technological world," argue the paper's authors.

"Critical and playful engagement is key to developing an informed and ethical stance on these powerful technologies," they write. "It provides the ground for creating new knowledge that is arresting and unique.

"Artmaking holds this power."

More information: For full study see page 21 of online journal PDF at www.fineartsata.ca/journal

Provided by University of Alberta

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