



Rethinking the Traditional Classroom IN THE AI ERA

BY ADRIENNE MATEI

In November 2022, language-processing artificial intelligence (AI) chatbot ChatGPT landed abruptly in the educational environment. Suddenly, an easily-accessible AI tool was responding to all manner of requests, from writing computer code and formulating scientific hypotheses, to analyzing Chaucer and drafting debate arguments based on historical fact.

Initially, this technology struck many as daunting; could it erode academic integrity, denude the value of degrees, and harken the end of an educational era?

A more measured outlook has since superseded these fears. Generative AI has transformative implications for both students and educators. Yet the nature of these changes can be optimistic and exciting when we consider them opportunities to prepare for a dynamic future—one in which today's students will themselves be technology's creators, curators, and critics.

A Forward-Thinking Approach

"I think we need to lean into the idea of exploring AI with a sense of anticipation and hope," says Nathan Still, Director of Technology and Innovation at York House School.

In Still's computer programming class, Senior School students are co-creators of machine-learning systems, crafting the datasets that neural networks process in order to respond accurately to user prompts; developing an appreciation for how and why AI "hallucinates," or

fabricates false information, and noticing how systemic biases can manifest in data without careful attention. They develop AI that scans factors contributing to carbon emissions and analyzes the funding discrepancies between various nonprofit organizations. They approach technology altruistically and embed their work with "strong convictions around empathy and equity," says Still.

AI and Preparing for Future Careers

Students are learning the values of the responsible use of technology. Simultaneously, they're preparing to join a workforce into which AI is already deeply integrated.

"Most jobs are already employing AI somehow," says Kirsten Sutton, a technology executive of 30 years and a YHS alum of '83. Jobs in software, research, and engineering come to mind, but today, AI's impact reaches beyond them into countless professions, like real estate, finance, and even physical therapy. "I know a woman who is a physical therapist by training, and she works in video games because she understands body movement and helps them to build more

realistic characters," she says. "You don't need to be a coding whiz, only to be a curious and observant tech adopter," says Sutton, who pursued her undergraduate degree in creative writing. "Anybody can be involved in tech."

Keeping AI Use Ethical and Responsible

The question of how generative AI may affect academic integrity is an interesting one. It's imperative students learn to think critically, to problem-solve, construct their own logical arguments, and develop perspectives on complex issues. At worst, AI can encourage intellectual laziness, "doing the work" for students seeking a shortcut.

However, teachers experimenting with the uses and limitations of chatbots have learned to see their output as starting points for the human iterative process. For her grade 8 ethics class, YHS teacher and alum, Dr. Alex Lesk asked ChatGPT to draft examples of ethical dilemmas, only to discover not all of its responses qualified as such. Lesk realized, "Oh, this is even better," she says. "Students could actually identify *why* something wasn't a dilemma," and explain the nuances therein, honing their critical thinking in the process. In fact, the blandness, inaccuracy, and cliché characteristic of many chatbot responses make them better foils against which students can sharpen their insights and probe for deeper meaning. "It teaches them not to be afraid of these tools—that they've got more creative ideas than the hivemind," says Lesk. AI also pushes teachers to "up their game," Lesk adds, noting that her own focus has shifted away from homework toward in-class assignments where showing one's process and evolution of thought is paramount—an approach far removed from the ancient standard of memorization and regurgitation. The point is, instead of assigning work that AI could easily generate, educators are reassessing what they're really asking students to do.

AI is ultimately a tool—one that's widely-used, accessible, and has many applications for assisting students. Using AI to help brainstorm essay ideas, explain tricky concepts, or take dictation isn't so different from using spellcheck or a calculator. What's important is students and teachers alike are transparent and intentional with its use, and understand its limitations. "I think if you keep it away from students, it becomes the forbidden fruit," says Kate Anthony, YHS Education Technology Coordinator. With parent permission and appropriate guidance, it's useful to let students explore AI for themselves. Says Anthony, "We're going to be living with this for the rest of our lives, so let's play around with it, and let's figure out how to do this properly together." 🍯

TIPS FOR PARENTS AND GUARDIANS

1. EDUCATING YOURSELF ON AI

"Artificial Intelligence" can be a slippery term; specifically, in the context of written response generators like ChatGPT and Google Bard, it denotes "large language models"—programs that analyze vast amounts of data and learn to predict sequences of words and concepts to accurately respond to user prompts. Take time to familiarize yourself with these programs by reading media coverage from trusted sources, and experimenting with them firsthand. "The students who are really successful with their use of technology most often have very engaged parents who come alongside them in that process," says Nathan Still, YHS Director of Technology and Innovation.

2. SAFE AND RESPONSIBLE AI USE

ChatGPT, and similar programs, are not intended for use by those under 13, and parental oversight is encouraged for users aged 13-18. When guiding your children in their online activities, it's essential to emphasize the importance of not disclosing personal or private details about themselves, their home, or people they know. To better understand the risks associated with sharing personal information, Still recommends having your child thoroughly read AI software privacy terms and policies prior to using the programs. "It can be earth-shattering for students to really dig in and realize how their data is being used," he says.

3. SETTING BOUNDARIES WITH AI

Set clear boundaries with your children regarding what is okay to use AI for—such as brainstorming ideas, checking grammar, or facilitating a mock pop-quiz on a subject—and what isn't, like having ChatGPT do your homework and passing it off as your own. This conscious decision-making can help students learn to use AI as a tool, not a complete solution, and encourages the kind of critical thinking that leads to a richer learning process.