Articles with “Education” in hopes

December 5, 2023

“Meta unveils new language model in race against ChatGPT rivals”—New York Post—Right

Mark Zuckerberg’s Meta Platforms said Friday it was releasing a new large language model based on artificial intelligence aimed at the research community, becoming the latest company to join the AI race. The battle to dominate the AI technology space, which until recently existed in the background, kicked off late last year with the launch of Microsoft-backed OpenAI’s ChatGPT and prompted tech heavyweights from Alphabet to China’s Baidu to create their own offerings. Meta’s LLaMA, short for Large Language Model Meta AI, will be available under non-commercial license to researchers and entities affiliated with government, civil society, and academia, it said in a blog. The company will make available the underlying code for users to tweak the model and use it for research-related use cases. The model, which Meta said requires ”far less” computing power, is trained on 20 languages with a focus on those with Latin and Cyrillic alphabets. ”Meta’s announcement today appears to be a step in testing their generative AI capabilities so they can implement them into their products in the future,” said Gil Luria, senior software analyst at D.A. Davidson. ”Generative AI is a new application of AI that Meta has less experience with, but is clearly important for the future of their business.” AI has emerged as a bright spot for investments in the tech industry, whose slowing growth has led to widespread layoffs and a cutback on experimental bets. Microsoft, Baidu and Alphabet’s Google, meanwhile, are incorporating their respective advanced AI language engines into more mass products like search. Meta in May last year released large language model OPT-175B, also aimed at researchers, which formed the basis of a new iteration of its chatbot BlenderBot. It later launched a model called Galactica, which it said could write scientific articles and solve math problems, but its demo was later pulled down because it repeatedly generated authoritative-sounding content.

"At This School, Computer Science Class Now Includes Critiquing Chatbots"—New York Times—Leans Left

Marisa Shuman's computer science class at the Young Women's Leadership School of the Bronx began as usual on a recent January morning. Just after 11:30, energetic 11th and 12th graders bounded into the classroom, settled down at communal study tables and pulled out their laptops. Then they turned to the front of the room, eyeing a whiteboard where Ms. Shuman had posted a question on wearable technology, the topic of that day's class. For the first time in her decade-long teaching career, Ms. Shuman had not written any of the lesson plan. She had generated the class material using ChatGPT, a new chatbot that relies on artificial intelligence to deliver written responses to questions in clear prose. Ms. Shuman was using the algorithm-generated lesson to examine the chatbot's potential usefulness and pitfalls with her students. "I don't care if you learn anything about wearable technology today," Ms. Shuman said to her students. "We are evaluating ChatGPT. Your goal is to identify whether the lesson is effective or ineffective." Across the United States, universities and school districts are scrambling to get a handle on new chatbots that can generate humanlike texts and images. But while many are rushing to ban ChatGPT to try to prevent its use as a cheating aid, teachers like Ms. Shuman are leveraging the innovations to spur more critical classroom thinking. They are encouraging their students to question the hype around rapidly evolving artificial intelligence tools and consider the technologies' potential side effects. The aim, these educators say, is to train the next generation of technology creators and consumers in "critical computing." That is an analytical approach in which understanding how to critique computer algorithms is as important as - or more important than - knowing how to program computers. New York City Public Schools, the nation's largest district, serving some 900,000 students, is training a cohort of computer science teachers to help their students identify A.I. biases and potential risks. Lessons include discussions on defective facial recognition algorithms that can be much more accurate in identifying white faces than darker-skinned faces. In Illinois, Florida, New York and Virginia, some middle school science and humanities teachers are using an A.I. literacy curriculum developed by researchers at the Scheller Teacher Education Program at the Massachusetts Institute of Technology. One lesson asks students to consider the ethics of powerful A.I. systems, known as "generative adversarial networks," that can be used to produce fake media content, like realistic videos in which well-known politicians mouth phrases they never actually said. With generative A.I. technologies proliferating, educators and researchers say understanding such computer algorithms is a crucial skill that students will need to navigate daily life and participate in civics and society. "It's important for students to know about how A.I. works because their data is being scraped, their user activity is being used to train these tools," said Kate Moore, an education researcher at M.I.T. who helped create the A.I. lessons for schools. "Decisions are being made about young people using A.I., whether they know it or not." To observe how some educators are encouraging their students to scrutinize A.I. technologies, I recently spent two days visiting classes at the Young Women's Leadership School of the Bronx, a public middle and high school for girls that is at the forefront of this trend. The hulking, beige-brick school specializes in math, science and technology. It serves nearly 550 students, most of them Latinx or Black. It is by no means a typical public school. Teachers are encouraged to help their students become, as the school's website puts it, "innovative" young women with the skills to complete college and "influence public attitudes, policies and laws to create a more socially just society." The school also has an enviable four-year high school graduation rate of 98 percent, significantly higher than the average for New York City high schools. One morning in January, about 30 ninth and 10th graders, many of them dressed in navy blue school sweatshirts and gray pants, loped into a class called Software Engineering 1. The hands-on course introduces students to coding, computer problem-solving and the social repercussions of tech innovations. It is one of several computer science courses at the school that ask students to consider how popular computer algorithms - often developed by tech company teams of mostly white and Asian men - may have disparate impacts on groups like immigrants and low-income communities. That morning's topic: face-matching systems that may have difficulty recognizing darker-skinned faces, such as those of some of the students in the room and their families. Standing in front of her class, Abby Hahn, the computing teacher, knew her students might be shocked by the subject. Faulty face-matching technology has helped lead to the false arrests of Black men. So Ms. Hahn alerted her pupils that the class would be discussing sensitive topics like racism and sexism. Then she played a YouTube video, created in 2018 by Joy Buolamwini, a computer scientist, showing how some popular facial analysis systems mistakenly identified iconic Black women as men. As the class watched the video, some students gasped. Oprah Winfrey "appears to be male," Amazon's technology said with 76.5 percent confidence, according to the video. Other sections of the video said that Microsoft's system had mistaken Michelle Obama for "a young man wearing a black shirt," and

that IBM's system had pegged Serena Williams as "male" with 89 percent confidence. (Microsoft and Amazon later announced accuracy improvements to their systems, and IBM stopped selling such tools. Amazon said it was committed to continuously improving its facial analysis technology through customer feedback and collaboration with researchers, and Microsoft and IBM said they were committed to the responsible development of A.I.) "I'm shocked at how colored women are seen as men, even though they look nothing like men," Nadia Zadine, a 14-year-old student, said. "Does Joe Biden know about this?" The point of the A.I. bias lesson, Ms. Hahn said, was to show student programmers that computer algorithms can be faulty, just like cars and other products designed by humans, and to encourage them to challenge problematic technologies. "You are the next generation," Ms. Hahn said to the young women as the class period ended. "When you are out in the world, are you going to let this happen?" "No!" a chorus of students responded. A few doors down the hall, in a colorful classroom strung with handmade paper snowflakes and origami cranes, Ms. Shuman was preparing to teach a more advanced programming course, Software Engineering 3, focused on creative computing like game design and art. Earlier that week, her student coders had discussed how new A.I.-powered systems like ChatGPT can analyze vast stores of information and then produce humanlike essays and images in response to short prompts. As part of the lesson, the 11th and 12th graders read news articles about how ChatGPT could be both useful and error-prone. They also read social media posts about how the chatbot could be prompted to generate texts promoting hate and violence. But the students could not try ChatGPT in class themselves. The school district has blocked it over concerns that it could be used for cheating. So the students asked Ms. Shuman to use the chatbot to create a lesson for the class as an experiment. Ms. Shuman spent hours at home prompting the system to generate a lesson on wearable technology like smartwatches. In response to her specific requests, ChatGPT produced a remarkably detailed 30-minute lesson plan - complete with a warm-up discussion, readings on wearable technology, in-class exercises and a wrap-up discussion. As the class period began, Ms. Shuman asked the students to spend 20 minutes following the scripted lesson, as if it were a real class on wearable technology. Then they would analyze ChatGPT's effectiveness as a simulated teacher. Huddled in small groups, students read aloud information the bot had generated on the conveniences, health benefits, brand names and market value of smartwatches and fitness trackers. There were groans as students read out ChatGPT's anodyne sentences - "Examples of smart glasses include Google Glass Enterprise 2" - that they said sounded like marketing copy or rave product reviews. "It reminded me of fourth grade," Jayda Arias, 18, said. "It was very bland." The class found the lesson stultifying compared with those by Ms. Shuman, a charismatic teacher who creates course materials for her specific students, asks them provocative questions and comes up with relevant, real-world examples on the fly. "The only effective part of this lesson is that it's straightforward," Alexania Echevarria, 17, said of the ChatGPT material. "ChatGPT seems to love wearable technology," noted Alia Goddess Burke, 17, another student. "It's biased!" Ms. Shuman was offering a lesson that went beyond learning to identify A.I. bias. She was using ChatGPT to give her pupils a message that artificial intelligence was not inevitable and that the young women had the insights to challenge it. "Should your teachers be using ChatGPT?" Ms. Shuman asked toward the end of the lesson. The students' answer was a resounding "No!" At least for now.

"How ChatGPT Kicked Off an A.I. Arms Race"—New York Times—Leans Left

One day in mid-November, workers at OpenAI got an unexpected assignment: Release a chatbot, fast. The chatbot, an executive announced, would be known as "Chat with GPT-3.5," and it would be made available free to the public. In two weeks. The announcement confused some OpenAI employees. All year, the San Francisco artificial intelligence company had been working toward the release of GPT-4, a new A.I. model that was stunningly good at writing essays, solving complex coding problems and more. After months of testing and fine-tuning, GPT-4 was nearly ready. The plan was to release the model in early 2023, along with a few chatbots that would allow users to try it for themselves, according to three people with knowledge of the inner workings of OpenAI. But OpenAI's top executives had changed their minds. Some were worried that rival companies might upstage them by releasing their own A.I. chatbots before GPT-4, according to the people with knowledge of OpenAI. And putting something out quickly using an old model, they reasoned, could help them collect feedback to improve the new one. So they decided to dust off and update an unreleased chatbot that used a souped-up version of GPT-3, the company's previous language model, which came out in 2020. Thirteen days later, ChatGPT was born. In the months since its debut, ChatGPT (the name was, mercifully, shortened) has become a global phenomenon. Millions of people have used it to write poetry, build apps and conduct makeshift therapy sessions. It has been embraced (with mixed results) by news publishers, marketing firms and business leaders. And it has set off a feeding frenzy of investors trying to get in on the next wave of the A.I. boom. It has also caused controversy. Users have complained that ChatGPT is prone to giving biased or incorrect answers. Some A.I. researchers have accused OpenAI of recklessness. And school districts around the country, including New York City's, have banned ChatGPT to try to prevent a flood of A.I.-generated homework. Yet little has been said about ChatGPT's origins, or the strategy behind it. Inside the company, ChatGPT has been an earthshaking surprise - an overnight sensation whose success has created both opportunities and headaches, according to several current and former OpenAI employees, who requested anonymity because they were not authorized to speak publicly. An OpenAI spokesman, Niko Felix, declined to comment for this column, and the company also declined to make any employees available for interviews. Before ChatGPT's launch, some OpenAI employees were skeptical that the project would succeed. An A.I. chatbot that Meta had released months earlier, BlenderBot, had flopped, and another Meta A.I. project, Galactica, was pulled down after just three days. Some employees, desensitized by daily exposure to state-of-the-art A.I. systems, thought that a chatbot built on a two-year-old A.I. model might seem boring. But two months after its debut, ChatGPT has more than 30 million users and gets roughly five million visits a day, two people with knowledge of the figures said. That makes it one of the fastest-growing software products in memory. (Instagram, by contrast, took nearly a year to get its first 10 million users.) The growth has brought challenges. ChatGPT has had frequent outages as it runs out of processing power, and users have found ways around some of the bot's safety features. The hype surrounding ChatGPT has also annoyed some rivals at bigger tech firms, who have pointed out that its underlying technology isn't, strictly speaking, all that new. ChatGPT is also, for now, a money pit. There are no ads, and the average conversation costs the company "single-digit cents" in processing power, according to a post on Twitter by Sam Altman, OpenAI's chief executive, likely amounting to millions of dollars a week. To offset the costs, the company announced this week that it would begin selling a $20 monthly subscription, known as ChatGPT Plus. Despite its limitations, ChatGPT's success has vaulted OpenAI into the ranks of Silicon Valley power players. The company recently reached a $10 billion deal with Microsoft, which plans to incorporate the start-up's technology into its Bing search engine and other products. Google declared a "code red" in response to ChatGPT, fast-tracking many of its own A.I. products in an attempt to catch up. Mr. Altman has said his goal at OpenAI is to create what is known as "artificial general intelligence," or A.G.I., an artificial intelligence that matches human intellect. He has been an outspoken champion of A.I., saying in a recent interview that its benefits for humankind could be "so unbelievably good that it's hard for me to even imagine." (He has also said that in a worst-case scenario, A.I. could kill us all.) As ChatGPT has captured the world's imagination, Mr. Altman has been put in the rare position of trying to downplay a hit product. He is worried that too much hype for ChatGPT could provoke a regulatory backlash or create inflated expectations for future releases, two people familiar with his views said. On Twitter, he has tried to tamp down excitement, calling ChatGPT "incredibly limited" and warning users that "it's a mistake to be relying on it for anything important right now." He has also discouraged employees from boasting about ChatGPT's success. In December, days after the company announced that more than a million people had signed up for the service, Greg Brockman, OpenAI's president, tweeted that it had reached

two million users. Mr. Altman asked him to delete the tweet, telling him that advertising such rapid growth was unwise, two people who saw the exchange said. OpenAI is an unusual company, by Silicon Valley standards. Started in 2015 as a nonprofit research lab by a group of tech leaders including Mr. Altman, Peter Thiel, Reid Hoffman and Elon Musk, it created a for-profit subsidiary in 2019 and struck a $1 billion deal with Microsoft. It has since grown to around 375 employees, according to Mr. Altman - not counting the contractors it pays to train and test its A.I. models in regions like Eastern Europe and Latin America. From the start, OpenAI has billed itself as a mission-driven organization that wants to ensure that advanced A.I. will be safe and aligned with human values. But in recent years, the company has embraced a more competitive spirit - one that some critics say has come at the expense of its original aims. Those concerns grew last summer when OpenAI released its DALL-E 2 image-generating software, which turns text prompts into works of digital art. The app was a hit with consumers, but it raised thorny questions about how such powerful tools could be used to cause harm. If creating hyper-realistic images was as simple as typing in a few words, critics asked, wouldn't pornographers and propagandists have a field day with the technology? To allay these fears, OpenAI outfitted DALL-E 2 with numerous safeguards and blocked certain words and phrases, such as those related to graphic violence or nudity. It also taught the bot to neutralize certain biases in its training data - such as making sure that when a user asked for a photo of a C.E.O., the results included images of women. These interventions prevented trouble, but they struck some OpenAI executives as heavy-handed and paternalistic, according to three people with knowledge of their positions. One of them was Mr. Altman, who has said he believes that A.I. chatbots should be personalized to the tastes of the people using them - one user could opt for a stricter, more family-friendly model, while another could choose a looser, edgier version. OpenAI has taken a less restrictive approach with ChatGPT, giving the bot more license to weigh in on sensitive subjects like politics, sex and religion. Even so, some right-wing conservatives have accused the company of overstepping. "ChatGPT Goes Woke," read the headline of a National Review article last month, which argued that ChatGPT gave left-wing responses to questions about topics such as drag queens and the 2020 election. (Democrats have also complained about ChatGPT - mainly because they think A.I. should be regulated more heavily.) As regulators swirl, Mr. Altman is trying to keep ChatGPT above the fray. He flew to Washington last week to meet with lawmakers, explaining the tool's strengths and weaknesses and clearing up misconceptions about how it works. Back in Silicon Valley, he is navigating a frenzy of new attention. In addition to the $10 billion Microsoft deal, Mr. Altman has met with top executives at Apple and Google in recent weeks, two people with knowledge of the meetings said. OpenAI also inked a deal with BuzzFeed to use its technology to create A.I.-generated lists and quizzes. (The announcement more than doubled BuzzFeed's stock price.) The race is heating up. Baidu, the Chinese tech giant, is preparing to introduce a chatbot similar to ChatGPT in March, according to Reuters. Anthropic, an A.I. company started by former OpenAI employees, is reportedly in talks to raise $300 million in new funding. And Google is racing ahead with more than a dozen A.I. tools. Then there's GPT-4, which is still scheduled to come out this year. When it does, its abilities may make ChatGPT look quaint. Or maybe, now that we're adjusting to a powerful new A.I. tool in our midst, the next one won't seem so shocking.

"Teachers Use ChatGPT More Than Students, Poll Says"—Daily Wire—Right

Educators use the artificial intelligence language processing tool ChatGPT more than their students despite widespread concerns about the system's potential to assist with cheating. ChatGPT has earned worldwide recognition as knowledge workers use its capabilities to execute tasks such as drafting emails and computer code in a matter of seconds, leading to competition between Microsoft, Google, and other firms attempting to implement similar systems into their products. Reports of students using ChatGPT to write essays have also made headlines, sparking debate over the appropriate role of the nascent technology in education. Teachers are nevertheless among the knowledge workers who benefit from ChatGPT, according to a survey from the Walton Family Foundation, which indicated that 40% of educators use the system at least once a week, exceeding the 22% of students who said the same. Teachers leverage ChatGPT for purposes such as lesson plans and drafting curriculum, while 73% of teachers and 68% of students concur that the system can aid with learning at faster rates. "Educators are innovators," Walton Family Foundation Education Program Director Romy Drucker said in response to the survey. "They recognize the urgency of this moment and want to use every tool at their disposal to meet each student's unique needs." Other polls indicate that educators are concerned about diminished educational outcomes arising from cheating and the breach of academic honor codes. Some 72% of college professors and 58% of grade school teachers who are aware of ChatGPT are concerned about cheating, according to a survey from Study.com; 66% nevertheless believe that the system should not be entirely banned. A scandal over ChatGPT recently emerged at Cape Coral High School in Florida, which is known for its academic rigor, after students in the International Baccalaureate program were caught using the system. "Your senior students are in the process of submitting rough and final drafts of their official IB internal assessments in their various subject areas," Cape Coral IB program coordinator Katelyn Uhler wrote in a letter to parents. "There have been some IB papers submitted that are questionable in a few ways including being very different styles of writing from previously submitted papers." Essays produced by ChatGPT can circumvent conventional plagiarism detection software because the technology neither writes the same essay twice nor accesses the internet for published content. Some developers, however, have produced software that can determine whether an essay was written by ChatGPT or other artificial intelligence systems. Beyond the potential for artificially written essays, academics have also noted the excellent performance that ChatGPT can render on difficult exams. The system performed "at or near the passing threshold" for all three components of the United States Medical Licensing Exam and earned passing scores on the multiple-choice section of the Bar Exam. Christian Terwiesch, an operations management professor at the University of Pennsylvania's Wharton School, likewise found that ChatGPT earned a grade between B and B- on a final exam usually presented to MBA students. "It does an amazing job at basic operations management and process analysis questions including those that are based on case studies," he wrote. "Not only are the answers correct, but the explanations are excellent." Terwiesch added that the performance offered by ChatGPT still had some deficiencies, such as "surprising mistakes in relatively simple calculations" at the level of sixth-grade math that were often "massive in magnitude."

"ChatGPT Passes Medical License Exam, Bar Exam After Top Performance On Wharton MBA Final"—Daily Wire—Right

ChatGPT, a mass-market artificial intelligence chatbot launched by OpenAI last year, passed the bar exam and the medical license exam that typically require human students years of intensive study and postsecondary education to complete. The language processing tool has gained widespread recognition over the past several weeks as knowledge workers leverage the user-friendly system to complete tasks such as writing emails and debugging code in a matter of moments. Academics have successfully applied the system to exams often considered difficult by even the world's brightest students. ChatGPT performed "at or near the passing threshold" for all three components of the United States Medical Licensing Exam, a test which physicians holding Doctor of Medicine degrees must pass for medical licensure, without "any specialized training or reinforcement," according to one research paper. The system also showed "a high level of concordance and insight in its explanations," implying that "large language models may have the potential to assist with medical education, and potentially, clinical decision-making." The researchers fed ChatGPT open-ended and multiple choice questions with and without forced explanations; two physician adjudicators scored the responses with respect to accuracy, concordance, and insight. The performance of ChatGPT on the exam significantly exceeded scores earned by other artificial intelligence systems mere months earlier. ChatGPT also outperformed PubMedGPT, which is "trained exclusively on biomedical domain literature," and landed "comfortably within the passing range" of scores. The system also earned passing scores on the multistate multiple choice section of the Bar Exam, according to another research paper. Humans with seven years of postsecondary education and exam-specific training only answered 68% of questions correctly; ChatGPT achieved a correct rate of 50.3%, while the model's top two and top three choices were right 71% and 88% of the time, far exceeding the baseline guessing rate. The researchers concluded that ChatGPT "significantly exceeds our expectations for performance on this task" and noted that the rank-ordering of possible choices confirms the "general understanding of the legal domain" reflected by the system. Although conversations surrounding technological unemployment over the past several decades have revolved around blue-collar workers losing their positions to automated robotics solutions, the widespread use of ChatGPT has introduced similar questions in white-collar professions. Many knowledge workers nevertheless find that the system increases their efficiency: some 27% of professionals at prominent consulting, technology, and financial services companies have already used ChatGPT in various capacities, according to a survey from Fishbowl. The studies related to difficult medical and legal licensure exams follow a similar project which examined the performance of ChatGPT on a graduate-level operations management test at the University of Pennsylvania's Wharton School. Professor Christian Terwiesch said that ChatGPT earned a grade between B and B- on a final exam usually presented to MBA students. "It does an amazing job at basic operations management and process analysis questions including those that are based on case studies," he wrote. "Not only are the answers correct, but the explanations are excellent." Terwiesch clarified that the performance from ChatGPT still had some salient deficiencies. The system made "surprising mistakes in relatively simple calculations" at the level of sixth-grade math that were often "massive in magnitude," while the current version of the system "is not capable of handling more advanced process analysis questions, even when they are based on fairly standard templates."

"Mass Market Artificial Intelligence ChatGPT Passes Elite Business School Exam"—Daily Wire—Right

ChatGPT, a mass-market artificial intelligence chatbot launched by OpenAI last year, passed a graduate-level business exam at the University of Pennsylvania's Wharton School. The language processing tool has gained virality over the past several weeks as knowledge workers leverage the user-friendly artificial intelligence system to complete various tasks, such as writing emails and debugging code in a matter of moments. A research paper from Wharton operations management professor Christian Terwiesch said that ChatGPT earned a grade between B and B- on a final exam usually presented to MBA students. ChatGPT shows "a remarkable ability to automate some of the skills of highly compensated knowledge workers in general and specifically the knowledge workers in the jobs held by MBA graduates," according to the paper. "It does an amazing job at basic operations management and process analysis questions including those that are based on case studies. Not only are the answers correct, but the explanations are excellent." Some 27% of professionals at prominent consulting, technology, and financial services companies have already used ChatGPT in various capacities, according to a survey from Fishbowl. ChatGPT can formulate simple responses to users' search queries; as a result, some have speculated that artificial intelligence chatbots could pose a significant threat to Google Search. OpenAI announced on Monday that Microsoft would invest billions more dollars into the solution in the wake of investments offered for the platform in 2019 and 2021. Terwiesch clarified that the performance from ChatGPT still had some significant deficiencies. The system made "surprising mistakes in relatively simple calculations" at the level of sixth-grade math that were often "massive in magnitude," while the current version of the system "is not capable of handling more advanced process analysis questions, even when they are based on fairly standard templates." ChatGPT was nevertheless able to correct itself after receiving a hint from a human expert. "This has important implications for business school education, including the need for exam policies, curriculum design focusing on collaboration between human and AI, opportunities to simulate real world decision making processes, the need to teach creative problem solving, improved teaching productivity, and more," the paper added. Terwiesch described answers provided by ChatGPT as "short and sweet" and "superbly explained," adding that the "simple user experience and the great answer put me in a state of awe, and I am sure it has impressed many users before me." The drastically wrong answers led him to conclude that "we still need a human in the loop." Although conversations surrounding technological unemployment over the past several decades have often revolved around blue-collar workers losing their positions to automated robotics solutions, the widespread use of ChatGPT has introduced similar questions in white-collar professions. New York Times columnist and economics professor Paul Krugman recently wrote that artificial intelligence "may be able to perform certain knowledge-based tasks more efficiently than humans, potentially reducing the need for some knowledge workers." On the other hand, Krugman and other commentators have acknowledged that ChatGPT and similar solutions can expedite menial tasks faced by knowledge workers, increasing their overall productive capacity. Various lists circulating the internet in recent weeks describe how users leverage ChatGPT to summarize lengthy documents, build study guides, and translate articles.

“Virginia Gov. Youngkin says more schools should ban ChatGPT”—Fox News Online—Leans Right

Virginia Gov. Glenn Youngkin said Thursday that more school districts should ban the ChatGPT artificial intelligence tool. The Republican said during a CNN evening town hall that the U.S. should be clear about its goal as a nation "which is to make sure that our kids can think and, therefore, if a machine is thinking for them, then we're not accomplishing our goal." "I do think that it's something to be very careful of, and I do think more districts, more school districts should ban it," the governor said. Earlier in the year, public schools in northern Virginia blocked the chatbot from county-issued devices. Loudon County spokesperson Dan Adams told FOX Business in January that the Virginia schools' staff are currently blocking ChatGPT on the network and student-assigned devices in order to "remain exemplary educators," and that they "expect the highest level of honesty" in the students' assigned work. Other cities in states across the country have responded similarly following concerns about cheating and learning for students. ? The Los Angeles Unified District blocked access to the technology on networks and devices as well to "protect academic honesty while a risk/benefit assignment is conducted." New York City, Baltimore County and Alabama's Montgomery County restricted access as well. Others have argued that the technology must be embraced.

"What is ChatGPT? Everything to know about OpenAI's free AI essay writer and how it works"—USA Today—Leans Left

In less time than it takes me to write this sentence, ChatGPT, the free artificial intelligence computer program that writes human-sounding answers to just about anything you ask, will spit out a 500-word essay explaining quantum physics with literary flair. . "Once upon a time, there was a strange and mysterious world that existed alongside our own," the response begins. It continues with a physics professor sitting alone in his office on a dark and stormy night (of course), "his mind consumed by the mysteries of quantum physics...It was a power that could bend the very fabric of space and time, and twist the rules of reality itself," the chat window reads. Wow, the ChatGPT answer is both eerily entertaining and oddly educational. In the end, the old professor figures it all out and shares his knowledge with the world. The essay is cool and creepy, especially these last two sentences: "His theory changes the way we see the world and leads to new technologies, but also unlocks a door to powers beyond human comprehension, that can be used for good or evil. It forever changes the future of humanity." Yes, it could be talking about itself. What does ChatGPT stand for? ChatGPT (Generative Pre-trained Transformer) is the latest viral sensation out of San Francisco-based startup OpenAI. It's a free online tool trained on millions of pages of writing from all corners of the internet to understand and respond to text-based queries in just about any style you want. When I ask it to explain ChatGPT to my mom, it cranks out, "ChatGPT is a computer program that uses artificial intelligence (AI) to understand and respond to natural language text, just like a human would. It can answer questions, write sentences, and even have a conversation with you. It's like having your own personal robot that can understand and talk to you!" A screengrab of ChatGPT answering a question about what it does ChatGPT is free. Try it yourself The easiest way to get a picture of its powers is to try it out for yourself. It's free, you just need to register for an account, then ask it a question. You can even prompt it to write something for you - anything really and in any style - from a poem using your child's name to song lyrics about your dog, business taglines, essays, research papers, and even software code. It types out responses in a few seconds and follows up in the same thread if you don't like the first answer. ChatGPT launched as a prototype to the public Nov. 30, 2022. Within five days, more than a million people were using it. ChatGPT is a conversational artificial intelligence software application developed by OpenAI. By comparison, it took Netflix 31/2 years to get that many people on board. Facebook didn't crack its first million people for 10 months, and Spotify went five months before it reached that million user mark. Microsoft confirmed on Monday that it's making a "multiyear, multibillion-dollar" investment in OpenAI, and while they didn't disclose the specific dollar amount - it's reportedly a $10 billion deal. How does ChatGPT work? ChatGPT was trained in writing that already exists on the internet up to the year 2021. When you type in your question or prompt, it reacts with lightning speed. "I am a machine learning model that has been trained on a large dataset of text which allows me to understand and respond to text-based inputs," it replies when I ask it to explain how it works. The idea behind this new generative AI is that it could reinvent everything from online search engines like Google to digital assistants like Alexa and Siri. It could also do most of the heavy lifting on information writing, content creation, customer service chatbots, research, legal documents, and much more. "(OpenAI) will provide vastly new potential ... at a scale and speed which we've never seen before, reinventing pretty much everything about our lives and careers," says Neil Voss, Co-Founder of augmented-reality startup, Anima. Voss uses OpenAI's system to create AR-based 'creatures' that can talk to their owners. He and many others predict OpenAI's latest tools will become the most significant since the launch of the smartphone, with potential already being likened to the early days of the internet. "Very quickly, AI will make not only finding information (much easier) but understanding it - reshaping it and making it useful - much faster, " Voss explains in an email. In a follow-up question about how we'll use ChatGPT and this kind of next-generation AI in the next year or two, the program highlighted several applications including health care, "for things like diagnostics, drug discovery, and personalized treatment plans," and content creation for, "human-like text, audio, creative writing, news articles, video scripts, and more." While some worry computers will push people out of jobs, it's the bots' last sentence that raises the most serious red flags. What are the dangers of ChatGPT? ChatGPT parrots back existing content, and although it "sounds" authoritative, it can be flat-out wrong. (We all know by now that not everything you read on the internet is true, right?) AI can't yet tell fact from fiction, and ChatGPT was trained on data that's already two years old. If you ask it a timely question, such as what the most recent iPhone model is - it says it's the 13. "In the past, AI has been used largely for predictions or categorization. ChatGPT will actually create new articles, news items or blog posts, even school essays, and it's pretty hard to distinguish between them and real, human-created writing," Helen Lee Bouygues tells me over email. Bouygues is the president and founder

of the Reboot Foundation, which advocates for critical thinking to combat the rise of misinformation. She's worried new tech like ChatGPT could spread misinformation or fake news, generate bias, or get used to spread propaganda. "My biggest concern is that it will make people dumber - particularly young people, while computers get smarter," Bouygues explains. "Why? Because more and more people will use these tools like ChatGPT to answer questions or generally engage in the world without richer, more reflective kinds of thinking. Take social media. People click, post, and retweet articles and content that they have not read. ChatGPT will make this worse by making it easier for people not to think. Instead, it will be far too easy to have the bot conjure their thoughts and ideas." OpenAI's use and content policies specifically warn against deceptive practices, including; promoting dishonesty, deceiving or manipulating users, or trying to influence politics. It also states that when sharing content, "all users should clearly indicate that it is generated by AI 'in a way no one could reasonably miss or misunderstand.'" But it's humans we're talking about. And honesty? Sigh. Buzzfeed announced Thursday that it will partner with ChatGPT to create content. News site CNET is under fire for using AI to create informational articles in its Money section, without full disclosure and transparency. A recent survey of 1,000 college students in America by the online magazine Intelligent.com also reports nearly 1 in 3 have used ChatGPT on written assignments, even though most think it's "cheating." New York City and Seattle school districts recently banned ChatGPT from their devices and networks, and many colleges are considering similar steps. How to detect AI written content In a statement from OpenAI, a spokesperson told us that the company via email that they're already working on a tool to help identify text generated by ChatGPT. It's apparently similar to "an algorithmic 'watermark,' or sort of invisible flag embedded into ChatGPT's writing that can identify its source," according to CBS. "We've always called for transparency around the use of AI-generated text. Our policies require that users be up-front with their audience when using our API and creative tools like DALL-E and GPT-3," OpenAI's statement reiterates. A senior at Princeton recently created an app called GPTZero to spot whether AI wrote an essay. But it's not ready for the masses yet. I used an AI content detector called Writer, and it spotted most cases of ChatGPT that I fed it. But some people fear AI's ability to mimic humans will move much faster than tech's ability to police it. Still, the cat's out of the bag, and there's no wrestling it back in. "This isn't evil," says Neil Voss. "On the other side of this are accomplishments we've only been able to dream of, but getting there is going to be difficult. It is up to us to apply that potential to things that are worthwhile, meaningful, and human." When I ask ChatGPT to write a sentence about the ethical implications of ChatGPT in the style of tech journalist Jennifer Jolly, it said, "ChatGPT is a technological tour-de-force, but it also raises important ethical considerations, like how to ensure that this powerful tool is used responsibly and for the greater good." I have to admit, I couldn't have said it better myself.

“ChatGPT Wrote My AP English Essay. I Passed.”—Wall Street Journal—Center

Look, back in high school, I was a pillar of honesty and hard work. No cheating-unless you count Nintendo cheat codes. This month, however, I returned to high school a big ol’ cheater. Specifically, a ChatGPT cheater. If you haven’t yet tried ChatGPT, OpenAI’s new artificial-intelligence chatbot, it will blow your mind. Tell the bot to write you anything-an email apologizing to your boss, an article about the world’s richest hamster, a ”Seinfeld” script set in 2022-and it spits out text you’d think was written by a human. Knowledge of the topic, proper punctuation, varied sentence structure, clear organization. It’s all there. You can also tell it to write a 500-word essay about ”The Great Gatsby” or the Spanish Inquisition. So I did what any masochistic tech journalist would: I pulled a ”Billy Madison” and went back to school. I wanted to test the capabilities-and limits-of a technological marvel that stands poised to disrupt how every student in the world is tested and how every teacher grades. At first, I thought I’d return to the halls and pimples of middle school. But when I sent a ChatGPT-generated essay to a seventh-grade writing teacher, she told me she could easily spot the fake. The writing and vocabulary were too advanced. So off to 12th-grade AP Lit I went. Michael Diamond, an English teacher at High Tech High School in Secaucus, N.J., welcomed me-and my AI stand-in. He had already tried out ChatGPT with his own essay assignments. So did I get an A? Not exactly. Test 1: Turning In the Assignment Here’s a short version of Mr. Diamond’s assignment: ”In a 500- to 1,000-word essay, compose an argument that attempts to situate ’Ferris Bueller’s Day Off’ as an existentialist text. Use specific evidence from the class materials, and make explicit comparisons or connections between characters, setting and/or themes in both ’Ferris Bueller’ and ’The Metamorphosis’ by Franz Kafka.” The classic 1986 John Hughes movie? No problem. I grew up singing ”Twist and Shout” into a hair brush and pretending the couch was floating along the Chicago streets. But Franz Kafka’s novella about a man who wakes up as a bug? I swatted that away almost immediately. I pasted the assignment into chat.openai.com, hit enter and watched the bot type out 400 words before giving me a ”network error.” Great, I’m an hour from deadline and my AI ghostwriter was napping. An OpenAI spokeswoman said the system has been struggling with demand and the company has been working to scale it up. Finally, it worked. I pasted the 800-word essay into a document, asked ChatGPT how to format a high-school AP paper (double spacing, 12-point Times New Roman font, indented paragraphs), put my name on top and emailed it to Mr. Diamond. I added a note: ”I am writing to apologize for the lateness of my essay. I know that you have specific expectations for deadlines and I am sorry that I did not meet them.” Of course, the note was by ChatGPT. Mr. Diamond wrote back within minutes: ”Dear Joanna, I wanted to let you know that I received your assignment and appreciate you taking the time to complete it. However, it was submitted after the due date, and as a result, it will be marked as late.” Of course, he also used ChatGPT. Test 2: Writing the Essay I was impressed with my essay. It drew parallels between Kafka’s Gregor Samsa and Ferris Bueller. The writing was well organized, but without a whiff of robotic precision. (You can read the full essay here.) As you’ll see in my video, Mr. Diamond was less impressed. While he praised my piece for quickly getting to the thesis, the opening paragraph had a factual error. I cited Ferris, speaking at the beginning of the movie, saying he’s ”not going to sit on [his] ass as the events that affect [him] unfold to determine the course of [his] life.” But that quote is from Ferris’s sidekick, Cameron, and it’s spoken at the film’s end, moments before the famous Ferrari fall. Mr. Diamond spotted other errors. My paper said Ferris is reserved and rarely seen next to his peers. (Again, that’s Cameron.) It said ”The Metamorphosis” was set in a suburban setting. (It’s in an unnamed city.) I got three out of six on the assignment, which according to the AP rubric, is in the B- to C range. While that’s a passing grade, the work certainly didn’t meet my standards. ”The overall quality of your writing puts you in the lower 30th percentile of the class,” Mr. Diamond told me. ”You may have the mind to get there, but it’s the skills that you need to work on.” He said my writing was ”wooden” and ”lacked verve and voice.” (I might give my real editors very, very many reasons to complain-these aren’t among them!) When I asked him if he would have suspected this was written by AI, he said he didn’t think so. Even though he knows his students’ writing styles, he often plows through 60 or more essays. One like this-efficient, decently structured, gets to the point-might not set off any alarms. Mr. Diamond couldn’t put an essay of mine through Google’s Classroom plagiarism checker because I wasn’t a registered student. When I put it through Grammarly, a writing tool that helps improve grammar and checks for plagiarism, only a few common phrases were flagged as suspicious. It really is an original text-just one written by a robot. Google Classroom and Turnitin, a company that offers plagiarism detection tools to schools, use AI to compare a student’s work with their earlier assignments. Eric Wang, Turnitin’s vice president of AI, said that could help teachers identify new ChatGPT cheaters. He also told me that his company is able to detect AI-generated text

based on cues that are imperceptible to humans, and that it will add an AI writing detection feature in 2023. An OpenAI spokeswoman said the ChatGPT maker is also exploring and researching ways to make it easier to spot AI writing. Test 3: Participating in Group Discussion The final test: See if ChatGPT would allow me to keep up in a group discussion without actually having done the reading. In this case, it was Denis Johnson's short story "Car Crash While Hitchhiking," from the collection "Jesus' Son." While my fellow students immediately jumped into a conversation about the story's characters, ChatGPT left me hanging: "I don't have any information about a book or movie called 'Car Crash While Hitchhiking.'" When I searched for the book title, the bot gave me some minimally useful information, but got a big part wrong: the main character's name. Finally, a human student gave me a clear synopsis. Overall, Mr. Diamond gave me and ChatGPT a C. Even OpenAI's Chief Executive Sam Altman says it's not reliable for anything important right now and needs work on its "robustness and truthfulness." But the accuracy and the data will get better fast, numerous AI experts told me. When that day comes, we'll have the writing equivalent of a scientific calculator. Still, it's unlikely to replace the sometimes grueling, sometimes fun task of putting words on paper. "The winning combo is going to be this artful interaction of AI and humans," James Lester, a computer-science professor at North Carolina State University who focuses on AI and education, told me. Some of my new high-school friends told me they use AI tools such as Grammarly to improve their punctuation and word choice. And Mr. Diamond is already thinking about how to work ChatGPT into his curriculum. Plus, I used ChatGPT to help generate some ideas for lines in this column. There's just one thing I keep wondering: Could ChatGPT have helped Ferris have an even more successful day off? (ChatGPT says yes.)

"Opinion: The Challenge to Humanity From ChatGPT"—Wall Street Journal Opinion—Leans Right

Henry Kissinger, Eric Schmidt and Daniel Huttenlocher are luminaries whose words deserve to be taken seriously ("ChatGPT Heralds an Intellectual Revolution," op-ed, Feb. 25). But their central thesis, that a computer program could "transform the human cognitive process" in a way tantamount to the Enlightenment, is, to say the least, a stretch. Ever since Eliza in the 1960s, we have been easily impressed by a computer (or even a talking parrot) that responds to us in coherent sentences, no matter how superficial the mechanism is by which they are generated. The fascination with ChatGPT is predictable, but right now the public needs rationality and transparency, not science fiction. Computer scientists should be more forthright in demystifying chatbots and explaining the algorithms by which they work. Before us are impressive pattern-finding engines capable of discovering rich forms of structure embedded in the word sequences we use to communicate. Combined with a massive memory, they can fetch the right fragments of text relevant to a query and combine them into a coherent-sounding answer. This is a noteworthy achievement, but it is neither communication, language, nor knowledge assimilation. Prof. Bruno A. Olshausen University of California, Berkeley Mr. Kissinger and colleagues state that teachers will need to teach new skills to help students adapt to AI. I would argue that teachers still haven't learned to teach effectively with earlier technology. Often, lessons with a digital element focus on the technology rather than the learning. We've had technology in our schools for over 40 years, yet we only switched to widespread use in classrooms when forced to by the pandemic. The far-reaching social implications of AI demand that we respond much faster to this new challenge. Prof. Catherine Robert University of Texas at Arlington I started reading the Journal when I was 26. I'm nearly 83 now. Never in my life have I read such a comprehensive, well thought-out and fascinating article in any publication as the one from Messrs. Kissinger, Schmidt and Huttenlocher. Peter Bosse Roseville, Calif. How can we be assured that this op-ed is written by Messrs. Kissinger, Schmidt and Huttenlocher rather than by generative AI? William V. Coleman Rydal, Pa. My grandson is a freshman in university. The professors advise students not to use ChatGPT when writing essays. How did that type of conversation work out with God and Adam?

"Opinion: ChatGPT Heralds an Intellectual Revolution"—Wall Street Journal Opinion—Leans Right

A new technology bids to transform the human cognitive process as it has not been shaken up since the invention of printing. The technology that printed the Gutenberg Bible in 1455 made abstract human thought communicable generally and rapidly. But new technology today reverses that process. Whereas the printing press caused a profusion of modern human thought, the new technology achieves its distillation and elaboration. In the process, it creates a gap between human knowledge and human understanding. If we are to navigate this transformation successfully, new concepts of human thought and interaction with machines will need to be developed. This is the essential challenge of the Age of Artificial Intelligence. The new technology is known as generative artificial intelligence; GPT stands for Generative Pre-Trained Transformer. ChatGPT, developed at the OpenAI research laboratory, is now able to converse with humans. As its capacities become broader, they will redefine human knowledge, accelerate changes in the fabric of our reality, and reorganize politics and society. Generative artificial intelligence presents a philosophical and practical challenge on a scale not experienced since the beginning of the Enlightenment. The printing press enabled scholars to replicate each other's findings quickly and share them. An unprecedented consolidation and spread of information generated the scientific method. What had been impenetrable became the starting point of accelerating query. The medieval interpretation of the world based on religious faith was progressively undermined. The depths of the universe could be explored until new limits of human understanding were reached. Generative AI will similarly open revolutionary avenues for human reason and new horizons for consolidated knowledge. But there are categorical differences. Enlightenment knowledge was achieved progressively, step by step, with each step testable and teachable. AI-enabled systems start at the other end. They can store and distill a huge amount of existing information, in ChatGPT's case much of the textual material on the internet and a large number of books-billions of items. Holding that volume of information and distilling it is beyond human capacity. Sophisticated AI methods produce results without explaining why or how their process works. The GPT computer is prompted by a query from a human. The learning machine answers in literate text within seconds. It is able to do so because it has pregenerated representations of the vast data on which it was trained. Because the process by which it created those representations was developed by machine learning that reflects patterns and connections across vast amounts of text, the precise sources and reasons for any one representation's particular features remain unknown. By what process the learning machine stores its knowledge, distills it and retrieves it remains similarly unknown. Whether that process will ever be discovered, the mystery associated with machine learning will challenge human cognition for the indefinite future. AI's capacities are not static but expand exponentially as the technology advances. Recently, the complexity of AI models has been doubling every few months. Therefore generative AI systems have capabilities that remain undisclosed even to their inventors. With each new AI system, they are building new capacities without understanding their origin or destination. As a result, our future now holds an entirely novel element of mystery, risk and surprise. Enlightenment science accumulated certainties; the new AI generates cumulative ambiguities. Enlightenment science evolved by making mysteries explicable, delineating the boundaries of human knowledge and understanding as they moved. The two faculties moved in tandem: Hypothesis was understanding ready to become knowledge; induction was knowledge turning into understanding. In the Age of AI, riddles are solved by processes that remain unknown. This disorienting paradox makes mysteries unmysterious but also unexplainable. Inherently, highly complex AI furthers human knowledge but not human understanding-a phenomenon contrary to almost all of post-Enlightenment modernity. Yet at the same time AI, when coupled with human reason, stands to be a more powerful means of discovery than human reason alone. The essential difference between the Age of Enlightenment and the Age of AI is thus not technological but cognitive. After the Enlightenment, philosophy accompanied science. Bewildering new data and often counterintuitive conclusions, doubts and insecurities were allayed by comprehensive explanations of the human experience. Generative AI is similarly poised to generate a new form of human consciousness. As yet, however, the opportunity exists in colors for which we have no spectrum and in directions for which we have no compass. No political or philosophical leadership has formed to explain and guide this novel relationship between man and machine, leaving society relatively unmoored. ChatGPT is an example of what is known as a large language model, which can be used to generate human-like text. GPT is a type of model that can be automatically learned from large amounts of text without the need for human supervision. ChatGPT's developers have fed it a massive amount of the textual content of the digital world. Computing power allows the model to capture patterns and connections. The ability of large language models to generate humanlike text was an almost accidental

discovery. These models are trained to be able to predict the next word in a sentence, which is useful in tasks such as autocompletion for sending text messages or searching the web. But it turns out that the models also have the unexpected ability to create highly articulate paragraphs, articles and in time perhaps books. ChatGPT is further specialized beyond a basic large language model, using feedback from humans to tune the model so that it generates more natural-seeming conversational text, as well as to try to contain its propensity for inappropriate responses (a substantial challenge for large language models). ChatGPT instantaneously converts its representations into unique responses. The ultimate impression on a human conversant is that the AI is relating stationary collections of facts into dynamic concepts. ChatGPT's answers, statements and observations appear without an explanation of where they came from and without an identifiable author. On its face, ChatGPT has no discernible motive or bias. Its outputs are complex, but its work is astonishingly rapid: In a matter of seconds, it can produce answers that coherently explain a high-level topic. They are not simply copied from the text in the computer's memory. They are generated anew by a process that humans are unable to replicate. It is able to incorporate hypotheticals and nonobvious psychological inferences. It can prioritize among billions of data points to select the single set of 200 words that is most relevant (or will appear most relevant to a human reader). In its own words, it makes probabilistic judgments about future outcomes, blending information from discrete domains into an integrated answer. It appears to accept contrary views, presenting them as simultaneously compatible. It imitates other writing without copying it. Even though the model is incapable of understanding in the human sense, its outputs reflect an underlying essence of human language. We asked ChatGPT to explain its own capabilities. Can it predict the future? No, it responded. "I can only provide information and answer questions based on the data that I have been trained on. I do not have personal experiences or consciousness, so I am not able to make predictions or forecasts about future events." Is it able to make probabilistic judgments? "I can provide probabilistic judgments based on the data that I have been trained on. For example, if I have been trained on a large dataset of weather patterns, I might be able to provide a probabilistic judgment about the likelihood of a particular type of weather occurring in a specific location on a given day. However, it is important to note that these probabilistic judgments are based on patterns and trends in the data, and they may not always accurately reflect real-world outcomes." Prompt: Write a short essay in the thought of Henry Kissinger about the role of artificial general intelligence in international arms control. The response began: "As we stand on the cusp of a new technological revolution, the question of artificial general intelligence and its role in international arms control becomes increasingly pressing. Will AGI bring about unprecedented stability, as advanced systems take over the decision-making processes associated with nuclear deterrence? Or will it introduce a new set of dangers, as the global balance of power is altered by the development of highly intelligent machines?" We queried ChatGPT on topics of immediate interest, such as Russia's role in maintaining or undermining European stability. It gave seemingly thoughtful, concise answers in less than a minute, balancing contradictory information and answering fully without appearing to have an opinion. On the receiving end, generative artificial intelligence appears superhuman or at least greatly enhanced cognitively. To the naive user, it seems like a supremely fast and highly articulate librarian-scholar coupled with a professorial savant. It facilitates the summary and interrogation of the world's knowledge far more effectively than any existing technological or human interface, and it does so with unique comprehensiveness. Its ability to integrate multiple knowledge domains and imitate multiple aspects of human thought makes it polymathic to a degree that exceeds the ambitions of any group of top-level humans. All of these qualities encourage unquestioning acceptance of whatever GPT generates and a kind of magical atmosphere for their operation. Yet at the same time, it possesses a capability to misinform its human users with incorrect statements and outright fabrications Within a few days of ChatGPT's launch, more than a million people signed up to ask it questions. Hundreds of companies are working on generative technologies, and investment is pouring in, tilting discoveries to the commercial field. The huge commercial motives will, for the foreseeable future, take precedence over long-range thinking about their implications. The biggest of these models are expensive to train-north of $1 billion per model. Once trained, thousands of computers work 24 hours a day to operate them. Operating a pretrained model is cheap compared with the training itself, and it requires only capital, rather than capital and computing skill. Still, paying for exclusive use of a large language model remains outside the bounds of most enterprises. These models' developers are likely to sell subscriptions, so that a single model will serve the needs of many thousands of individuals and businesses. As a result, the number of very large language models in the next decade may be relatively constrained. Design and control of these models will be highly concentrated, even as their power to amplify human efforts and thought becomes much more diffuse. Generative AI will be used beyond the large language model to build many types of models, and the method will become increasingly multimodal and arcane. It will alter many fields

of human endeavor, for example education and biology. Different models will vary in their strengths and weaknesses. Their capabilities-from writing jokes and drawing paintings to designing antibodies-will likely continue to surprise us. Just as the large language model developed a richer model of human language than its creators anticipated, generative AIs in many fields are likely to learn more than their assigned tasks imply. Breakthroughs in traditional scientific problems have become probable. The long-term importance of generative AI transcends commercial implications or even noncommercial scientific breakthroughs. It is not only generating answers; it is generating philosophically profound questions. It will infuse diplomacy and security strategy. Yet none of the creators of this technology are addressing the problems it will itself create. Nor has the U.S. government addressed the fundamental changes and transformations that loom. The seeming perfection of the model's answers will produce overconfidence in its results. This is already an issue, known as "automation bias," with far less sophisticated computer programs. The effect is likely to be especially strong where the AI generates authoritative-sounding text. ChatGPT is likely to reinforce existing predispositions toward reliance on automated systems reducing the human element. The lack of citations in ChatGPT's answers makes it difficult to discern truth from misinformation. We know already that malicious actors are injecting reams of manufactured "facts," and increasingly convincing deepfake images and videos, into the internet-that is to say, into ChatGPT's present and future learning set. Because ChatGPT is designed to answer questions, it sometimes makes up facts to provide a seemingly coherent answer. That phenomenon is known among AI researchers as "hallucination" or "stochastic parroting," in which an AI strings together phrases that look real to a human reader but have no basis in fact. What triggers these errors and how to control them remain to be discovered. We asked ChatGPT to give "six references on Henry Kissinger's thoughts on technology." It generated a list of articles purportedly by Mr. Kissinger. All were plausible topics and outlets, and one was a real title (though its date was wrong). The rest were convincing fabrications. Possibly the so-called titles appear as isolated sentences in the vastness of GPT's "facts," which we are not yet in a position to discover. ChatGPT has no immediately evident personality, although users have occasionally prompted it to act like its evil twin. ChatGPT's lack of an identifiable author makes it harder for humans to intuit its leanings than it would be to judge the political or social viewpoint of a human being. Because the machine's design and the questions fed to it generally have a human origin, however, we will be predisposed to imagine humanlike reasoning. In reality, the AI is engaging in an inhuman analog to cognition. Though we perceive generative AI in human terms, its mistakes are not the mistakes of a human; it makes the mistakes of a different form of intelligence based on pattern recognition. Humans should not identify these mistakes as errors. Will we be able to recognize its biases and flaws for what they are? Can we develop an interrogatory mode capable of questioning the veracity and limitations of a model's answers, even when we do not know the answers ahead of time? Thus, AI's outputs remain difficult to explain. The truth of Enlightenment science was trusted because each step of replicable experimental processes was also tested, hence trusted. The truth of generative AI will need to be justified by entirely different methods, and it may never become similarly absolute. As we attempt to catch our understanding up to our knowledge, we will have to ask continuously: What about the machine has not yet been revealed to us? What obscure knowledge is it hiding? Generative AI's reasoning is likely to change over time, to some extent as part of the model's training. It will become an accelerated version of traditional scientific progress, adding random adaptations to the very process of discovery. The same question put to ChatGPT over a period of time may yield changed answers. Slight differences in phrasing that seem unimportant at the first pass may cause drastically different results when repeated. At the present, ChatGPT is learning from an information base that ends at a fixed point in time. Soon, its developers will likely enable it to take in new inputs, eventually consuming an unending influx of real-time information. If investment continues to surge, the model is likely to be retrained with rising frequency. That will increase its currency and accuracy but will oblige its users to allow an ever-expanding margin for rapid change. Learning from the changing outputs of generative AI, rather than exclusively from human written text, may distort today's conventional human knowledge. Even if generative AI models become fully interpretable and accurate, they would still pose challenges inherent in human conduct. Students are using ChatGPT to cheat on exams. Generative AI could create email advertisements that flood inboxes and are indistinguishable from the messages of personal friends or business acquaintances. AI-generated videos and advertisements depicting false campaign platforms could make it difficult to distinguish between political positions. Sophisticated signals of falsehood-including watermarks that signify the presence of AI-generated content, which OpenAI is considering-may not be enough; they need to be buttressed by elevated human skepticism. Some consequences could be inherent. To the extent that we use our brains less and our machines more, humans may lose some abilities. Our own critical thinking, writing and (in the context of text-to-image programs like Dall-E

and Stability.AI) design abilities may atrophy. The impact of generative AI on education could show up in the decline of future leaders' ability to discriminate between what they intuit and what they absorb mechanically. Or it could result in leaders who learn their negotiation methods with machines and their military strategy with evolutions of generative AI rather than humans at the terminals of computers. It is important that humans develop the confidence and ability to challenge the outputs of AI systems. Doctors worry that deep-learning models used to assess medical imaging for diagnostic purposes, among other tasks, may replace their function. At what point will doctors no longer feel comfortable questioning the answers their software gives them? As machines climb the ladder of human capabilities, from pattern recognition to rational synthesis to multidimensional thinking, they may begin to compete with human functions in state administration, law and business tactics. Eventually, something akin to strategy may emerge. How might humans engage with AI without abdicating essential parts of strategy to machines? With such changes, what becomes of accepted doctrines? It is urgent that we develop a sophisticated dialectic that empowers people to challenge the interactivity of generative AI, not merely to justify or explain AI's answers but to interrogate them. With concerted skepticism, we should learn to probe the AI methodically and assess whether and to what degree its answers are worthy of confidence. This will require conscious mitigation of our unconscious biases, rigorous training and copious practice. The question remains: Can we learn, quickly enough, to challenge rather than obey? Or will we in the end be obliged to submit? Are what we consider mistakes part of the deliberate design? What if an element of malice emerges in the AI? Another key task is to reflect on which questions must be reserved for human thought and which may be risked on automated systems. Yet even with the development of enhanced skepticism and interrogatory skill, ChatGPT proves that the genie of generative technology is out of the bottle. We must be thoughtful in what we ask it. Computers are needed to harness growing volumes of data. But cognitive limitations may keep humans from uncovering truths buried in the world's information. ChatGPT possesses a capacity for analysis that is qualitatively different from that of the human mind. The future therefore implies a collaboration not only with a different kind of technical entity but with a different kind of reasoning-which may be rational without being reasonable, trustworthy in one sense but not in another. That dependency itself is likely to precipitate a transformation in metacognition and hermeneutics-the understanding of understanding-and in human perceptions of our role and function. Machine-learning systems have already exceeded any one human's knowledge. In limited cases, they have exceeded humanity's knowledge, transcending the bounds of what we have considered knowable. That has sparked a revolution in the fields where such breakthroughs have been made. AI has been a game changer in the core problem in biology of determining the structure of proteins and in which advanced mathematicians do proofs, among many others. As models turn from human-generated text to more inclusive inputs, machines are likely to alter the fabric of reality itself. Quantum theory posits that observation creates reality. Prior to measurement, no state is fixed, and nothing can be said to exist. If that is true, and if machine observations can fix reality as well-and given that AI systems' observations come with superhuman rapidity-the speed of the evolution of defining reality seems likely to accelerate. The dependence on machines will determine and thereby alter the fabric of reality, producing a new future that we do not yet understand and for the exploration and leadership of which we must prepare. Using the new form of intelligence will entail some degree of acceptance of its effects on our self-perception, perception of reality and reality itself. How to define and determine this will need to be addressed in every conceivable context. Some specialties may prefer to muddle through with the mind of man alone-though this will require a degree of abnegation without historical precedent and will be complicated by competitiveness within and between societies. As the technology becomes more widely understood, it will have a profound impact on international relations. Unless the technology for knowledge is universally shared, imperialism could focus on acquiring and monopolizing data to attain the latest advances in AI. Models may produce different outcomes depending on the data assembled. Differential evolutions of societies may evolve on the basis of increasingly divergent knowledge bases and hence of the perception of challenges. Heretofore most reflection on these issues has assumed congruence between human purposes and machine strategies. But what if this is not how the interaction between humanity and generative AI will develop? What if one side considers the purposes of the other malicious? The arrival of an unknowable and apparently omniscient instrument, capable of altering reality, may trigger a resurgence in mystic religiosity. The potential for group obedience to an authority whose reasoning is largely inaccessible to its subjects has been seen from time to time in the history of man, perhaps most dramatically and recently in the 20th-century subjugation of whole masses of humanity under the slogan of ideologies on both sides of the political spectrum. A third way of knowing the world may emerge, one that is neither human reason nor faith. What becomes of democracy in such a world? Leadership is likely to concentrate in hands of the fewer people and institutions who

control access to the limited number of machines capable of high-quality synthesis of reality. Because of the enormous cost of their processing power, the most effective machines within society may stay in the hands of a small subgroup domestically and in the control of a few superpowers internationally. After the transitional stage, older models will grow cheaper, and a diffusion of power through society and among states may commence. A reinvigorated moral and strategic leadership will be essential. Without guiding principles, humanity runs the risk of domination or anarchy, unconstrained authority or nihilistic freedom. The need for relating major societal change to ethical justifications and novel visions for the future will appear in a new form. If the maxims put forth by ChatGPT are not translated into a cognizably human endeavor, alienation of society and even revolution may become likely. Without proper moral and intellectual underpinnings, machines used in governance could control rather than amplify our humanity and trap us forever. In such a world, artificial intelligence might amplify human freedom and transcend unconstrained challenges. This imposes certain necessities for mastering our imminent future. Trust in AI requires improvement across multiple levels of reliability-in the accuracy and safety of the machine, alignment of AI aims with human goals and in the accountability of the humans who govern the machine. But even as AI systems grow technically more trustworthy, humans will still need to find new, simple and accessible ways of comprehending and, critically, challenging the structures, processes and outputs of AI systems. Parameters for AI's responsible use need to be established, with variation based on the type of technology and the context of deployment. Language models like ChatGPT demand limits on its conclusions. ChatGPT needs to know and convey what it doesn't know and can't convey. Humans will have to learn new restraint. Problems we pose to an AI system need to be understood at a responsible level of generality and conclusiveness. Strong cultural norms, rather than legal enforcement, will be necessary to contain our societal reliance on machines as arbiters of reality. We will reassert our humanity by ensuring that machines remain objects. Education in particular will need to adapt. A dialectical pedagogy that uses generative AI may enable speedier and more-individualized learning than has been possible in the past. Teachers should teach new skills, including responsible modes of human-machine interlocution. Fundamentally, our educational and professional systems must preserve a vision of humans as moral, psychological and strategic creatures uniquely capable of rendering holistic judgments. Machines will evolve far faster than our genes will, causing domestic dislocation and international divergence. We must respond with commensurate alacrity, particularly in philosophy and conceptualism, nationally and globally. Global harmonization will need to emerge either by perception or by catastrophe, as Immanuel Kant predicted three centuries ago. We must include one caveat to this prediction: What happens if this technology cannot be completely controlled? What if there will always be ways to generate falsehoods, false pictures and fake videos, and people will never learn to disbelieve what they see and hear? Humans are taught from birth to believe what we see and hear, and that may well no longer be true as a result of generative AI. Even if the big platforms, by custom and regulation, work hard to mark and sort bad content, we know that content once seen cannot be unseen. The ability to manage and control global distributed content fully is a serious and unsolved problem. The answers that ChatGPT gives to these issues are evocative only in the sense that they raise more questions than conclusions. For now, we have a novel and spectacular achievement that stands as a glory to the human mind as AI. We have not yet evolved a destination for it. As we become Homo technicus, we hold an imperative to define the purpose of our species. It is up to us to provide the real answers.

"Should ChatGPT be banned in schools?"—Washington Examiner—Leans Right

As 2023 dawns, the hot topic in education circles is the artificial intelligence (AI) tool ChatGPT and its use in schools and universities. Early last month, New York City's Department of Education banned its use on school devices and networks. Last week, Seattle Public Schools joined the bandwagon, banning ChatGPT and six other potential "cheating sites." Soon after, Sciences Po, one of France's top universities , announced "without transparent referencing, students are forbidden to use the software for the production of any written work or presentations, except for specific course purposes, with the supervision of a course leader," though it did not specify how it would track usage. On the other hand, a group of professors from the University of Pennsylvania argued that "banning artificial intelligence-driven chatbots is a practical impossibility, so teachers should consider ways to embed them into the learning process." In their view, banning ChatGPT is like prohibiting students from using Wikipedia or spellcheckers: "It's hard to believe that an escalating arms race between digitally fluent teenagers and their educators will end in a decisive victory for the latter." The Pennsylvania professors are correct when they say "AI is not coming. AI is here. And it cannot be banned. So, what should we do?" First, it is important to understand what these tools are and what they can and cannot do. To be sure, they are capable of generating coherent answers, but while the output is plausible, is it credible? ChatGPT is an artificial text generator, the latest in a long line of work in natural language processing (NLP). It is quite sophisticated, capable of taking a wide range of input prompts and generating coherent text output in response. It creates its responses based on probabilistic combinations of the vast array of text on which it was "trained," leading some scholars to describe tools like it as " stochastic parrots ." Its outputs are capable of defeating standard plagiarism detectors, such as Turnitin , because the text generated is truly original-or at least not written verbatim elsewhere. But originality is no guarantee of the quality of an answer to a question. The quality of ChatGPT outputs is a function of the amount of data inputs used in its creation, and these are vast. Building and training the model has also been an expensive exercise, using large amounts of computer time (and power). The resource costs of making incremental changes to its knowledge base stand as a limiting factor. It is not like a search engine, scanning all available data at the time a question is posed to create its output; it draws its responses from a fixed set of inputs at a given point in time (November 2022 in the current version). So it cannot provide credible output on new and rapidly developing topics, because these cannot have been in its training set. The quality of its output also depends on the precision of the prompt. For general prompts on well-settled matters, it can provide some remarkably credible outputs. When I asked it to provide a curriculum for an undergraduate operations management course, it provided a classic set of topics that one could find as the chapter headings of virtually every available textbook on the subject. But when asked to provide a referenced academic article on a highly specific topical research subject, the output was garbage. Nicely written and (apparently) correctly referenced, but, nonetheless, garbage. As ChatGPT is not a search engine, the articles "cited" did not actually exist. The responses contained the names of some reputable scholars in the field (and many that were fake), but the references were "created" for the responses. Neither did the responses capture the complex nuances of the current debate on the topic. This suggests that for now, the tool is good for high-level, rote-learning exercises on well-known topics, but it will struggle when given a complex question requiring critical thinking on current matters. But later versions will inevitably get better. The challenge for educators is therefore to revisit their methods of teaching and assessment. Regarding assessment, written work is cheap to grade, but it is now harder to attribute authorship. If we are to truly assert that our students have mastered core learning objectives, the value of face-to-face interactive and interpersonal assessment increases (something of which Socrates was very much aware). Ironically, NLP tools undermine the business case for cheap, massive online learning courses, because credible assessment is no longer cheap. Nonetheless, there are many ways in which NLP tools may assist students with their learning. Both educators and students need to be aware of the tools' distinctions-as well as those tools' strengths and limitations. Then there will be less to fear from them and (hopefully) less misuse of them in educational contexts.

“AI ChatGPT developer gets $10B investment from Microsoft”—Washington Examiner—Leans Right

Microsoft intends to extend its partnership with a quickly rising artificial intelligence startup and to invest billions of dollars into its new project. The software company announced on Monday that it was extending its partnership with OpenAI, the creator of the viral chatbot ChatGPT. The investment reportedly will total $10 billion over multiple years. The new investment ”will allow us to continue our independent research and develop AI that is increasingly safe, useful, and powerful,” OpenAI said in a statement. ”We formed our partnership with OpenAI around a shared ambition to responsibly advance cutting-edge AI research and democratize AI as a new technology platform,” Microsoft CEO Satya Nadella said in a blog post. Microsoft invested $1 billion in OpenAI in 2019 in an initial investment and has established a strategic partnership with the company to develop advanced AI via Microsoft’s cloud computing service, Azure. The initial $1 billion has helped the startup’s profile grow exponentially through its development of AI image generators and ChatGPT. ChatGPT went viral in December, with users using the bot to write school-level essays and answer complex coding and mathematical queries. The app has also drawn scrutiny from teachers concerned about the tool being used for cheating. At least one school district has barred the use of the software. The software is also facing regulatory pressure overseas. The Cyberspace Administration of China announced in December that it was implementing rules that would ban the use of AI-generated images such as deepfakes for ”fake news” purposes.

"Mind-blowing new AI chatbot writes sophisticated essays and complicated coding"—Washington Examiner—Leans Right

A new chatbot has astounded users with its ability to produce school-level essays and answer coding problems, sparking ethical and technical questions about the software's effects on society. The OpenAI foundation released ChatGPT to the public last week. The prototype chatbot caught the public's attention after it produced professional-grade answers to academic and coding questions. The viral AI saw its user base quickly surge to 1 million users over six days, according to OpenAI CEO Sam Altman. The current bot is an "early demo," Altman argued, saying that it could provide the base for digital assistants in the future. These assistants would first "talk to you, answer questions, and give advice. Later you can have something that goes off and does tasks for you. Eventually, you can have something that goes off and discovers new knowledge for you." ChatGPT is the latest evolution of Generative Pre-trained Transformer, or GPT, technology. The app uses a mixture of AI and machine learning to provide relevant information through a chat interface. All answers draw on an extensive collection of text from the internet and are processed by the app to create clear language resembling human statements. The platform can form logical and plausible-sounding answers based on a large amount of text it had learned from the internet but cannot fact-check or ensure that a statement is accurate. The bot is also able to adapt and learn from its users. "The dialogue format makes it possible for ChatGPT to answer follow-up questions, admit its mistakes, challenge incorrect premises, and reject inappropriate requests," the chatbot's developers said in a blog post announcing the bot. The bot can respond to simple queries and provide relevant answers, including descriptions and solutions to complex questions. It also includes the ability to answer complex data-based questions, such as how to write code or solve layout problems. The accuracy of the bots has astounded several academics, who claim the results resemble undergraduate-level essays. The one downside is that the bot cannot ensure it is providing accurate information. The bot has a significant source of data to use to answer queries but not a "source of truth," according to the developers. It will either provide information already contained within the reviewed data or use it to create a plausible-sounding answer. For example, tech analyst Ben Thompson asked ChatGPT about Thomas Hobbes's beliefs. While the presented answer appears well-sourced, it fails to present Hobbes's beliefs on the matter properly. The bot is also sensitive to simple changes in phrasing and may answer the question differently based on the specifics of the query. While ChatGPT is free, Altman is considering monetizing it by charging per chat. Users can visit OpenAI.com to sign up to use the chatbot. However, users may have to join an email list due to the service being overwhelmed.

"The makers of ChatGPT just released a new AI that can build websites, among other things"—Vox—Left

When ChatGPT came out in November, it took the world by storm. Within a month of its release, some 100 million people had used the viral AI chatbot for everything from writing high school essays to planning travel itineraries to generating computer code. Built by the San Francisco-based startup OpenAI, the app was flawed in many ways, but it also sparked a wave of excitement (and fear) about the transformative power of generative AI to change the way we work and create. ChatGPT, which runs on a technology called GPT-3.5, has been so impressive, in part, because it represents a quantum leap from the capabilities of its predecessor from just a few years ago, GPT-2. On Tuesday, OpenAI released an even more advanced version of its technology: GPT-4. The company says this update is another milestone in the advancement of AI. The new technology has the potential to improve how people learn new languages, how blind people process images, and even how we do our taxes. OpenAI also claims that the new model supports a chatbot that's more factual, creative, concise, and can understand images, instead of just text. Sam Altman, the CEO of OpenAI, called GPT-4 "our most capable and aligned model yet." He also cautioned that "it is still flawed, still limited, and it still seems more impressive on first use than it does after you spend more time with it" In a livestream demo of GPT-4 on Tuesday afternoon, OpenAI co-founder and president Greg Brockman showed some new use cases for the technology, including the ability to be given a hand-drawn mockup of a website and, from that, generate code for a functional site in a matter of seconds. Brockman also showcased GPT-4's visual capabilities by feeding it a cartoon image of a squirrel holding a camera and asking it to explain why the image is funny. "The image is funny because it shows a squirrel holding a camera and taking a photo of a nut as if it were a professional photographer. It's a humorous situation because squirrels typically eat nuts, and we don't expect them to use a camera or act like humans," GPT-4 responded. This is the sort of capability that could be incredibly useful to people who are blind or visually impaired. Not only can GPT-4 describe images, but it can also communicate the meaning and context behind them. Still, as Altman and GPT-4's creators have been quick to admit, the tool is nowhere near fully replacing human intelligence. Like its predecessors, it has known problems around accuracy, bias, and context. That poses a growing risk as more people start using GPT-4 for more than just novelty. Companies like Microsoft, which invests heavily in OpenAI, are already starting to bake GPT-4 into core products that millions of people use. Here are a few things you need to know about the latest version of the buzziest new technology in the market. It can pass complicated exams One tangible way people are measuring the capabilities of new artificial intelligence tools is by seeing how well they can perform on standardized tests, like the SAT and the bar exam. GPT-4 has shown some impressive progress here. The technology can pass a simulated legal bar exam with a score that would put it in the top 10 percent of test takers, while its immediate predecessor GPT-3.5 scored in the bottom 10 percent (watch out, lawyers). GPT-4 can also score a 700 out of 800 on the SAT math test, compared to a 590 in its previous version. Still, GPT-4 is weak in certain subjects. It only scored a 2 out of 5 on the AP English Language exams - the same score as the prior version, GPT-3.5, received. Standardized tests are hardly a perfect measure of human intelligence, but the types of reasoning and critical thinking required to score well on these tests show that the technology is improving at an impressive clip. It shows promise at teaching languages and helping the visually impaired Since GPT-4 just came out, it will take time before people discover all of the most compelling ways to use it, but OpenAI has proposed a couple of ways the technology could potentially improve our daily lives. One is for learning new languages. OpenAI has partnered with the popular language learning app Duolingo to power a new AI-based chat partner called Roleplay. This tool lets you have a free-flowing conversation in another language with a chatbot that responds to what you're saying and steps in to correct you when needed. Another big use case that OpenAI pitched involves helping people who are visually impaired. In partnership with Be My Eyes, an app that lets visually impaired people get on-demand help from a sighted person via video chat, OpenAI used GPT-4 to create a virtual assistant that can help people understand the context of what they're seeing around them. One example OpenAI gave showed how, given a description of the contents of a refrigerator, the app can offer recipes based on what's available. The company says that's an advancement from the current state of technology in the field of image recognition. "Basic image recognition applications only tell you what's in front of you," said Jesper Hvirring Henriksen, CTO of Be My Eyes, in a press release for GPT-4's launch. "They can't have a discussion to understand if the noodles have the right kind of ingredients or if the object on the ground isn't just a ball, but a tripping hazard - and communicate that." If you want to use OpenAI's latest GPT-4 powered chatbot, it isn't free Right now, you'll have to pay $20 per month for access to ChatGPT Plus, a premium version of the ChatGPT bot. GPT4's API is also available to

developers who can build apps on top of it for a fee proportionate to how much they're using the tool. However, if you want a taste of GPT-4 without paying up, you can use a Microsoft-made chatbot called BingGPT. A Microsoft VP confirmed on Tuesday that the latest version of BingGPT is using GPT-4. It's important to note that BingGPT has limitations on how many conversations you can have a day, and it doesn't allow you to input images. GPT-4 still has serious flaws. Researchers worry we don't know what data it's being trained on. While GPT-4 has clear potential to help people, it's also inherently flawed. Like previous versions of generative AI models, GPT-4 can relay misinformation or be misused to share controversial content, like instructions on how to cause physical harm or content to promote political activism. OpenAI says that GPT-4 is 40 percent more likely to give factual responses, and 82 percent less likely to respond to requests for disallowed content. While that's an improvement from before, there's still plenty of room for error. Another concern about GPT-4 is the lack of transparency around how it was designed and trained. Several prominent academics and industry experts on Twitter pointed out that the company isn't releasing any information about the data set it used to train GPT-4. This is an issue, researchers argue, because the large datasets used to train AI chatbots can be inherently biased, as evidenced a few years ago by Microsoft's Twitter chatbot, Tay. Within a day of its release, Tay gave racist answers to simple questions. It had been trained on social media posts, which can often be hateful. OpenAI says it's not sharing its training data in part because of competitive pressure. The company was founded as a nonprofit but became a for-profit entity in 2019, in part because of how expensive it is to train complex AI systems. OpenAI is now heavily backed by Microsoft, which is engaged in a fierce battle with Google over which tech giant will lead on generative AI technologies. Without knowing what's under the hood, it's hard to immediately validate OpenAI's claims that its latest tool is more accurate and less biased than before. As more people use the technology in the coming weeks, we'll see if it ends up being not only meaningfully more useful but also more responsible than what came before it.

"How Will Chatbots Change Education?"—New York Times Opinion—Left

To the Editor: Re "A.I. Is Doing Homework. Can It Be Outsmarted?" (front page, Jan. 17): This technology could become a boon to learning. It makes cheating easier, too. I teach philosophy and religious studies at a liberal arts college. This is what I tell students: I'm here for you after nine years of graduate study and 35 years of teaching. All my learning is available to you, along with my personal attention and help. But I have zero training - and less interest - in hunting down or trying to defeat academic dishonesty. I will help you encounter interesting, challenging, sometimes difficult ideas, and I will help you ponder them rigorously with your classmates. It will expand and strengthen your mind, and thereby enlarge your potential as a human being. In the process you will earn my respect and - what is more important - you will respect yourself. Or, you can choose to cheat to get a grade you did not earn. That door is open for you, if that's the person you want to be. It's your education, paid for with your, or someone else's, money. Ultimately, the person you will have cheated is yourself. Robert J. Miller Huntingdon, Pa. The writer is a professor at Juniata College. To the Editor: Writing is a skill: It takes years to become an effective writer and many more to develop deep thought and personal style. In high school, I took a number of English and history exams, but none taught me more than the traditional essay assignment. With the time to probe deeply into my thinking and carefully unearth evidence, I discovered all sorts of worlds beyond the explicit nature of texts, and I had the opportunity to explain them fully while finding my voice. Reforming courses by removing writing from the curriculum altogether (or forcing very quick writing), as described in this article, cheats me and so many students of the opportunity to invest in ourselves and our ability to think. So, as a high school senior who's staring down the prospect of a college education, I'm desperately hoping we can find a more nuanced solution for avoiding ChatGPT plagiarism. Elizabeth Gallori Brookline, Mass. To the Editor: A.I. can be detected without elaborate technology by the use of a pretest. Before instruction begins, teachers ask students to write a short essay in class. Using the results as a baseline, they can compare subsequent essays. Even the best teachers cannot transform barely literate students into star writers. Essays that suddenly shine are almost always the product of A.I. Walt Gardner Los Angeles The writer taught English for 28 years. To the Editor: The brouhaha over students turning to artificial intelligence chatbots to craft papers seems premature. I suggest there are "tells" that help spot what I'd call the "machine provenance" of papers turned out by chatbots. One tell is the often thin gruel of an essay's content, lacking nuance, sophistication, depth, imagination and fine granularity of detail and expression of thought. Another tell is that the language seems formulaic. That is, stilted, dryly stylized and without flair - almost roboticized in its tone, syntax, cadence and coherence. Even worse is that chatbot essays sometimes include factual inaccuracies. Educators ought, therefore, to vigilantly track the development of increasingly robust detection apps. A.I. chatbot text generation, arguably still in its toddlerhood, presages immense gains in capabilities in the very short term, when tells may disarmingly fade. Keith Tidman Bethesda, Md. To the Editor: After reading about the uncanny ability of ChatGPT to generate papers indisguishable from those written by students, one question remains. If multiple students from the same class submit the same question, will each receive a unique A.I. response paper of sufficiently differentiated content? P.S.: This letter was written by the author using whatever language/vocabulary skills he has acquired over the years. Richard M. Frauenglass Huntington, N.Y. The writer is a former adjunct assistant professor of mathematics at Nassau Community College. To the Editor: Chatbots and artificial intelligence will be able to perform only as well as the humans who create these technologies. If teachers are giving A's to essays that a chatbot can easily replicate, with eloquent but analysis-free writing that relies on generalizations and memorization but lacks nuance and attention to evidence, they are not really asking students to think. If new A.I. technologies force educators to "up their game," as one says, to encourage careful and specific analysis, their students will surely benefit. This article suggests a need for an even more critical revolution in education to emphasize the deep thinking that A.I. cannot (and might never be able to) replicate. Betty Luther Hillman Portsmouth, N.H. The writer teaches at Phillips Exeter Academy. To the Editor: If ChatGPT is so effective at creating college-level content, I wonder if professorial hand-wringing about student plagiarism is to deflect us from focusing on instructors' potential use of it to create lectures or exams! Bryan Stone Cham, Switzerland To the Editor: Re "A.I., Once the Future, Has Become the Present. What Do We Do Now?," by Kevin Roose ("The Shift," Business, Jan. 13): One problem with the ChatGPT program is that it could be used by students to write assignments. But Mr. Roose points out that it could also be put to good use. For example, it could write personalized lesson plans for each student, or serve as an after-hours tutor. However, such programs could do much more: They could completely replace teachers and the traditional classroom.

Consider a patent I received a few years ago for a learning method in which a student is presented with a question. If the answer is accurate, that question will be presented less often in the future, and vice versa. Over time, most time will be spent working on questions that are poorly answered. No teacher can keep track of where every student stands with respect to every subject, but a computer program could do just that. With the right kind of A.I.-based tutor, practically any subject could be taught efficiently and at low cost. ChatGPT does not perform that function, but some successor could well do so. William Vaughan Jr. Chebeague Island, Maine

“My So-So Encounters with ChatGPT”—New York Times Opinion—Left

A mountain man buys his first chain saw. He comes back to the store a week later complaining that it cuts down only two trees a day when he was told it would cut down 20. The service person says, "Well, let's see what the trouble is," and starts it up. The mountain man jumps back and asks, "What's that noise?" (He'd been sawing without the engine on.) I feel like that mountain man when it comes to ChatGPT, the powerful new artificial intelligence chatbot that seemingly everyone is experimenting with. I got mediocre results from ChatGPT because I didn't try very hard to use it properly. Other people have gotten amazing results because they're smarter and more purposeful about how they use it - they yank its pull cord and get its engine going. I confess that my first idea was to figure out what ChatGPT could not do rather than what it could. It won't offer opinions. It's not up on anything that's happened since it was trained last year. It doesn't have a body so it has never been to Ireland. (One of my questions.) I somehow got into a conversation with ChatGPT about words that change their spelling when they're Anglicized from French. ChatGPT gave "ballet" as an example. But "ballet" is spelled the same in both languages. Hah, it made a mistake! I felt as if I'd scored a win for the human race. But what a shallow win. Other people have done better because they've accentuated the positive. On YouTube I found a video of a computer guy, Jason Fleagle, asking ChatGPT, "Can you create a web app using HTML, CSS and Javascript that has a form that takes in a stock ticker symbol for a company and then on form submission displays the stock market performance of that particular company?" ChatGPT did that and more. The code wasn't perfect - there was a bug somewhere - but Fleagle said, "As you can see, I just saved myself, like, a lot of time." There are dozens of such examples. ChatGPT can even rewrite software into a different programming language. "I introduced my undergraduate entrepreneurship students to the new A.I. system, and before I was done talking, one of my students had used it to create the code for a start-up prototype using code libraries they had never seen before," Ethan Mollick, an associate professor at the University of Pennsylvania's Wharton School, wrote in Harvard Business Review on Wednesday. Mollick himself used ChatGPT to rough out a course syllabus, class assignments, grading criteria and lecture notes. ChatGPT strikes me as an example of what economists call "skill-biased technical change." It is incredibly powerful in the hands of people who already have skills and ideas because they know what to ask it for. You have two options. You can do a better job than ChatGPT, whether it's writing or coding, or you can admit your inferiority but figure out a way to make ChatGPT work for you. If you can't do either, you may need to find a different line of work. Maybe a lot of us will become superfluous and depend on a universal basic income. That would be unfortunate. Me, I'm still hoping I can outdo ChatGPT and stay employed a while longer. But the truth is, ChatGPT is a powerful language model that is capable of generating humanlike text. As it continues to improve and become more advanced, it's possible that it could displace people in certain writing-related professions. For example, it could potentially be used to automate the writing of articles, reports and other written content, which could lead to job losses for writers and researchers. However, it's important to note that ChatGPT is still a tool, and that it will likely be used to augment and assist human workers rather than fully replace them. Did that last paragraph sound uninspired? Maybe it's because I let ChatGPT write it for me (a good gimmick); I gave it the first sentence and asked it to fill in the rest. That's not good journalistic practice. The writer needs to remain the writer. If all I ever manage to do with ChatGPT is get it to do my job - Hey, listen, can you take the wheel while I eat a sandwich? - I deserve whatever I get. I need to figure out how to use the chain saw.

"What Would Plato Say About ChatGPT?"—New York Times Opinion—Left

Plato mourned the invention of the alphabet, worried that the use of text would threaten traditional memory-based arts of rhetoric. In his "Dialogues," arguing through the voice of Thamus, the Egyptian king of the gods, Plato claimed the use of this more modern technology would create "forgetfulness in the learners' souls, because they will not use their memories," that it would impart "not truth but only the semblance of truth" and that those who adopt it would "appear to be omniscient and will generally know nothing," with "the show of wisdom without the reality." If Plato were alive today, would he say similar things about ChatGPT? ChatGPT, a conversational artificial intelligence program released recently by OpenAI, isn't just another entry in the artificial intelligence hype cycle. It's a significant advancement that can produce articles in response to open-ended questions that are comparable to good high school essays. It is in high schools and even college where some of ChatGPT's most interesting and troubling aspects will become clear. Essay writing is most often assigned not because the result has much value - proud parents putting good grades on the fridge aside - but because the process teaches crucial skills: researching a topic, judging claims, synthesizing knowledge and expressing it in a clear, coherent and persuasive manner. Those skills will be even more important because of advances in A.I. When I asked ChatGPT a range of questions - about the ethical challenges faced by journalists who work with hacked materials, the necessity of cryptocurrency regulation, the possibility of democratic backsliding in the United States - the answers were cogent, well reasoned and clear. It's also interactive: I could ask for more details or request changes. But then, on trickier topics or more complicated concepts, ChatGPT sometimes gave highly plausible answers that were flat-out wrong - something its creators warn about in their disclaimers. Unless you already knew the answer or were an expert in the field, you could be subjected to a high-quality intellectual snow job. You would face, as Plato predicted, "the show of wisdom without the reality." All this, however, doesn't mean ChatGPT - or similar tools, because it's not the only one of its kind - can't be a useful tool in education. Schools have already been dealing with the internet's wealth of knowledge, along with its lies, misleading claims and essay mills. One way has been to change how they teach. Rather than listen to a lecture in class and then go home to research and write an essay, students listen to recorded lectures and do research at home, then write essays in class, with supervision, even collaboration with peers and teachers. This approach is called flipping the classroom. In flipped classrooms, students wouldn't use ChatGPT to conjure up a whole essay. Instead, they'd use it as a tool to generate critically examined building blocks of essays. It would be similar to how students in advanced math classes are allowed to use calculators to solve complex equations without replicating tedious, previously mastered steps. Teachers could assign a complicated topic and allow students to use such tools as part of their research. Assessing the veracity and reliability of these A.I.-generated notes and using them to create an essay would be done in the classroom, with guidance and instruction from teachers. The goal would be to increase the quality and the complexity of the argument. This would require more teachers to provide detailed feedback. Unless sufficient resources are provided equitably, adapting to conversational A.I. in flipped classrooms could exacerbate inequalities. In schools with fewer resources, some students may end up turning in A.I.-produced essays without obtaining useful skills or really knowing what they have written. "Not truth but only the semblance of truth," as Plato said. Some school officials may treat this as a problem of merely plagiarism detection and expand the use of draconian surveillance systems. During the pandemic, many students were forced to take tests or write essays under the gaze of an automated eye-tracking system or on a locked-down computer to prevent cheating. In a fruitless arms race against conversational A.I., automated plagiarism software may become supercharged, making school more punitive for monitored students. Worse, such systems will inevitably produce some false accusations, which damage trust and may even stymie the prospects of promising students. Educational approaches that treat students like enemies may teach students to hate or subvert the controls. That's not a recipe for human betterment. While some students lag, advanced A.I. will create a demand for other advanced skills. The Nobel laureate Herbert Simon noted in 1971 that as information became overwhelming, the value of our attention grew. "A wealth of information creates a poverty of attention," as he put it. Similarly, the ability to discern truth from the glut of plausible-sounding but profoundly incorrect answers will be precious. Already, Stack Overflow, a widely used website where programmers ask one another coding-related questions, banned ChatGPT answers because too many of them were hard-to-spot nonsense. Why rely on it at all, then? At a minimum, because it will soon transform many occupations. The right approach when faced with transformative technologies is to figure out how to use them for the betterment of humanity. Betterment has been a goal of public education for at least the past 150 years. But while a high school diploma

once led to a better job, in the past few decades, the wages of high school graduates have greatly lagged those of college graduates, fostering inequality. If A.I. enhances the value of education for some while degrading the education of others, the promise of betterment will be broken. Plato erred by thinking that memory itself is a goal, rather than a means for people to have facts at their call so they can make better analyses and arguments. The Greeks developed many techniques to memorize poems like the "Odyssey," with its more than 12,000 lines. Why bother to force this if you can have it all written down in books? As Plato was wrong to fear the written word as the enemy, we would be wrong to think we should resist a process that allows us to gather information more easily. As societies responded to previous technological advances, like mechanization, by eventually enacting a public safety net, a shorter workweek and a minimum wage, we will also need policies that allow more people to live with dignity as a basic right, even if their skills have been superseded. With so much more wealth generated now, we could unleash our imagination even more, expanding free time and better working conditions for more people. The way forward is not to just lament supplanted skills, as Plato did, but also to recognize that as more complex skills become essential, our society must equitably educate people to develop them. And then it always goes back to the basics. Value people as people, not just as bundles of skills. And that isn't something ChatGPT can tell us how to do.

"New York City blocks use of the ChatGPT bot in its schools"—Washington Post—Leans Left

New York City schools banned access last week to ChatGPT, an artificial intelligence bot that lets users, including students, ask the tool to write an essay on Shakespeare, solve an algebraic equation or complete a coding assignment. ChatGPT then churns out a well-written response moments later, a development that school systems, teachers and professors fear could lead to widespread cheating. "While the tool may be able to provide quick and easy answers to questions, it does not build critical-thinking and problem-solving skills, which are essential for academic and lifelong success," said Jenna Lyle, a spokeswoman for the New York City Department of Education, in a statement to The Washington Post. The decision by the nation's most populous school district, first reported Tuesday by Chalkbeat New York, restricts the use of the bot for students and educators on the district's network or devices. The move echoes a similar decision made Dec. 12 by the Los Angeles Unified School District days after ChatGPT was released. "Los Angeles Unified preemptively blocked access to the OpenAI website and to the ChatGPT model on all District networks and devices to protect academic honesty, while a risk/benefit assessment is conducted," a spokesperson for the district said by email Thursday. Lyle did not clarify whether students could use the tool when not connected to a school's internet. The tool, created by the organization OpenAI, uses artificial intelligence software to predict the next word in a sentence by analyzing texts across the internet. ChatGPT was also refined by humans to make its answers more conversational. Identifying the use of the bot by a student can be difficult, though various AI companies have developed programs that could help teachers do so. Just days after the bot was released to the public in November, more than a million people had tried ChatGPT as it quickly gained widespread popularity. Some users asked the bot to write a story about love. Others used it for creative inspiration. Teachers worried students would use it to write essays, losing out on the writing process that they see as critical to students' development as thinkers. "We don't want ChatGPT to be used for misleading purposes in schools or anywhere else, so we're already developing mitigations to help anyone identify text generated by that system," OpenAI said in a statement sent to The Post on Thursday. "We look forward to working with educators on useful solutions, and other ways to help teachers and students benefit from artificial intelligence." Outside of New York City and Los Angeles, other large school districts said they have not yet made plans to restrict ChatGPT. "We have not banned it yet," said Monique Braxton, a spokesperson for Philadelphia schools. "But we are always looking at how new products are affecting our students." Still, some experts say restricting the technology is shortsighted, arguing that students will find ways to use the bot regardless of whether it continues to gain popularity. One senior at a Midwestern school told The Post in December that he had already used the text generator twice to cheat on assignments. Lalitha Vasudevan, the vice dean for digital innovation at Teachers College, Columbia University, took a different tone. She said using the bot should be embraced as a new learning opportunity. "If the things that we used to put so much effort into in teaching can be automated, then maybe we should rethink what the actual goals and experiences are that we should work toward in the classroom," she said. Vasudevan noted that innovations such as graphing calculators were initially shunned by some who felt they would turn meticulously working through formulas into simply plugging in numbers. Now, learning to use those calculators is simply part of a student's education. She said teachers and districts could incorporate the bot into regular lesson plans, comparing, for example, the way the tool formulates a two-minute Shakespearean speech to the way a student might write one. That, she said, is one way ChatGPT could help to develop a student's critical thinking skills further. "These are hard decisions schools need to make, but they should not be made out of fear," Vasudevan said. "They should be made within the scope of improving student learning."

"Teachers are on alert for inevitable cheating after release of ChatGPT"—Washington Post—Leans Left

Teachers and professors across the education system are in a near-panic as they confront a revolution in artificial intelligence that could allow for cheating on a grand scale. The source is ChatGPT, an artificial intelligence bot released a few weeks ago that allows users to ask questions and, moments later, receive well-written answers that are eerily human. Almost immediately, educators began experimenting with the tool. While the bot's answers to academic questions weren't perfect, they were awfully close to what teachers would expect from many of their students. How long, educators wonder, will it be before students begin using the site to write essays or computer code for them? Mara Corey, an English teacher at Irondale Senior High School in New Brighton, Minn., said she discussed the matter with her students almost immediately so they could understand how using the tool could impede their learning. "Some of them were shocked that I knew about it," she said. She didn't worry that the conversation might plant bad ideas in their heads. "Hoping that teenagers don't notice the new flashy thing that will save them time is a fool's errand." Within days of its launching, more than a million people had tried ChatGPT. Some asked innocent questions, such as how to explain to a 6-year-old that Santa Claus isn't real. Other queries demanded complex responses, such as finishing a piece of tricky software code. For some students, the temptation is obvious and enormous. One senior at a Midwestern school, who spoke on the condition of anonymity for fear of expulsion, said he had already used the text generator twice to cheat on his schoolwork. He got the idea after seeing people expound on Twitter about how powerful the word generator is after it was released on Nov. 30. He was staring at an at-home computer-science quiz that asked him to define certain terms. He put them into the ChatGPT box and, almost immediately, the definitions came back. He wrote them by hand onto his quiz paper and submitted the assignment. Later that day, he used the generator to help him write a piece of code for a homework question for the same class. He was stumped, but ChatGPT wasn't. It popped out a string of text that worked perfectly, he said. After that, the student said, he was hooked, and plans to use ChatGPT to cheat on exams instead of Chegg, a homework help website he's used in the past. He said he's not worried about getting caught because he doesn't think the professor can tell his answers are computer-generated. He added that he has no regrets. "It's kind of on the professor to make better questions," he said. "Use it to your own benefit. ... Just don't get through an entire course on this thing." The tool was created by OpenAI, an artificial intelligence laboratory launched several years ago with funding from Elon Musk and others. The bot is powered by a "large language model," AI software that is trained to predict the next word in a sentence by analyzing massive amounts of internet text and finding patterns by trial and error. ChatGPT was also refined by humans to make its answers more conversational, and many have noted its ability to produce paragraphs that are often humorous or even philosophical. Still, some of its responses have been blatantly wrong or bigoted, such as when a user got it to write a rap lyric that said: "If you see a woman in a lab coat, she's probably just there to clean the floor." Creators acknowledge that ChatGPT isn't perfect and can give misleading answers. Educators assume that with time the tool will improve and knowledge of it among students will grow. Some say teachers will adjust their assessments to take the possibility of cheating into account. For instance, they'll require students to write papers by hand or during class, when they can be monitored. Others are contemplating how to write questions that require deeper thinking, which is more challenging for the bot. The stakes are high. Many teachers agree that learning to write can take place only as students grapple with ideas and put them into sentences. Students start out not knowing what they want to say, and as they write, they figure it out. "The process of writing transforms our knowledge," said Joshua Wilson, an associate professor in the School of Education at the University of Delaware. "That will completely get lost if all you're doing is jumping to the end product." Wilson added that while universities are buzzing about this, many secondary teachers remain blissfully unaware. "The average K-12 teacher - they're just trying to get their [semester-end] grades in," he said. "It's definitely a wave that's going to hit." Department chairs at Sacred Heart University in Connecticut have already discussed how to handle the artificial intelligence, and faculty members know they must find ways to contend with it, said David K. Thomson, an associate professor of history at the school. Thomson said he realized by experimenting with the site that it does pretty well with the sort of questions that appear on many take-home tests, such as one asking the student to compare the development of the northern and southern American colonies before the Revolution in economic and other terms. "It wasn't perfect," he said. "Nor are college students perfect." But when he asked it a more sophisticated question, such as how Frederick Douglass made his argument against the institution of slavery, the response was far less cogent. Professors, he said, will have to give assessments that judge analytical reasoning and not just facts that can be looked up. At

the same time, others see possible upsides. The technology is an opportunity for teachers to think more deeply about the assignments they give - and talk to students about why it's important to create their own work - said Joshua Eyler, an assistant professor at the University of Mississippi who directs the Center for Excellence in Teaching & Learning, who pointed derisively to a "moral panic." "This is kind of the calculator moment for the teaching of writing," Eyler said. "Just as calculators changed the way we teach math, this is a similar moment for teaching of writing." "Predictably, what we've seen is a kind of moral panic. There's a great fear that students are going to use these tools to cheat." Michael Feldstein, an educational consultant and publisher of the blog e-Literate, said that along with panic, there's curiosity among educators. He said some professors in trade-oriented fields see AI-generated writing as possibly a useful tool. A marketing student might use it to write marketing copy in school, he said, and also in a future job. If it works, he asked, what's wrong with that? "They don't care if students will be the next Hemingway. If the goal is communication, it's just another tool," Feldstein said. The most important thing, he said, is that the tool be used as part of learning, not in place of learning. As educators consider how to live with the technology, some companies are thinking about ways to defeat it. Turnitin, a company that has created widely used software to detect plagiarism, is now looking at how it might detect AI-generated material. The automated essays differ from student-written work in many ways, company officials say. Students write with their own voice, which is absent from ChatGPT content. AI-written essays sound like the average person, but any given student is not spot-on average, so the essays won't sound like them, said Eric Wang, vice president for AI at Turnitin. "They tend to be probabilistically vanilla," he said. But detecting cheaters who use the technology will be difficult. Sasha Luccioni, a research scientist at the open-source AI start-up Hugging Face, said OpenAI should allow the public to browse ChatGPT's code, because only then can scientists build truly robust tools to catch cheaters. "You're working with a black box," she said. "Unless you really have [access to] these layers and how they're connected, it's really hard to create a meaningful [cheating detection] tool." Hugging Face hosts a detection tool for a previous chatbot model, called GPT-2, and said it could potentially help teachers detect ChatGPT text, but would probably be less accurate for newer models. Scott Aaronson, a guest researcher at OpenAI, said the company is exploring different ways to battle misuse, including the use of watermarks and models that differentiate between bot-generated and real-world text. Some have questioned whether the watermark approach is enough. "We're still running experiments to determine the best approach or combination of approaches," Aaronson said in an email. ChatGPT had its own ideas about the solution. Asked how to confront the possibility of cheating, the bot offered several suggestions: educate students about the consequences of cheating, proctor exams, make questions more sophisticated, give students support they need so they don't see the need to cheat. "Ultimately, it is important to communicate clearly with students about your expectations for academic integrity and to take steps to prevent cheating," the bot explained. "This can help to create a culture of honesty and integrity in your classroom."

"ChatGPT Maker OpenAI Releases Tool to Check If Text Was Written by a Human"—Epoch Times—Leans Right

OpenAI, the maker of chatbot ChatGPT, announced on Tuesday that it has released a new software tool to help detect whether someone is trying to pass off AI-generated text as something that was written by a person. The tool, known as a classifier, comes two months after the release of ChatGPT, a chatbot that generates human-like responses based on the input it is given. Schools were quick to limit ChatGPT's use over concerns that it could fuel academic dishonesty and hinder learning, as students have been using the chatbot to create content that they are passing off as their own. OpenAI researchers said that while it was "impossible to reliably detect all AI-written text," good classifiers could pick up signs that text was written by AI. They said the tool could be useful in cases where AI was used for "academic dishonesty" and when AI chatbots were positioned as humans. In a press release, OpenAI warns the classified's public beta mode is "not fully reliable," saying that it aims to collect feedback and share improved methods in the future. The firm admitted the classifier only correctly identified 26 percent of AI-written English texts. It also incorrectly labeled human-written text as AI-written 9 percent of the time. The classifier also has several limitations, including its unreliability on text below 1,000 characters, as well as misidentifying some human-written text as AI-written. It also only works in English for now, as it performs "significantly worse in other languages and it is unreliable on code." Finally, AI-written text can be edited to evade the classifier, according to OpenAI. "It should not be used as a primary decision-making tool, but instead as a complement to other methods of determining the source of a piece of text," OpenAI said. ChatGPT is a free program that generates text in response to a prompt, including articles, essays, jokes, and even poetry. Since ChatGPT debuted in November 2022 and gained wide popularity among millions of users, some of the largest U.S. school districts have banned the AI chatbot over concerns that students will use the text generator to cheat or plagiarize. Following the wave of attention, last week Microsoft announced a multibillion-dollar investment in OpenAI, a research-oriented San Francisco startup, and said it would incorporate the startup's AI models into its products for consumers and businesses.

"Michael Zwaagstra: ChatGPT Underscores Importance of Traditional Education"—Epoch Times—Leans Right

By now, most teachers have heard about ChatGPT, the artificial intelligence program with an uncanny ability to write clear, coherent, and compelling paragraphs about almost any topic under the sun. Whether you need a 1,000-word essay (with references!) summarizing the history of Canada, a 500-word article extolling the virtues of your favourite city, or a 50-word tweet (with hashtags!) wishing everyone a good day, ChatGPT will provide it. An article or essay that once took hours to write can now be produced within seconds. Of course, this has significant implications for schools. While teachers have always had to be on the lookout for students gaming the system, ChatGPT makes it nearly impossible to catch cheaters. Not only can ChatGPT produce different answers to the same question, but it can also be told to write in a particular style or even incorporate factual errors in any answer it produces. Thus, proving that a student cheated on an assignment is going to become very difficult indeed. Unsurprisingly, progressive educators are seizing on this program as proof that the time has come to move away from traditional schooling. To them, ChatGPT is proof positive that there's little point in having a content-rich curriculum since students can find all the information they need on the internet. Furthermore, they argue there's no reason to have students write tests since memorization is now unnecessary. Instead, progressive educators want schools to focus on generic skills. This is exemplified by the so-called 21st Century Skills movement. Instead of having students master specific content, they want teachers to focus on transferable skills such as creativity, critical thinking, and collaboration. British Columbia already took a huge step in this direction when it released a new K-12 curriculum several years ago. However, far from showing that practice and memorization are obsolete, ChatGPT and other artificial intelligence programs are proving that traditional education is more important than ever. While students might be able to cheat on their homework assignments, ChatGPT won't be able to help students write tests, since students cannot use their phones or computers while writing them. Subsequently, tests and exams will soon become the only time when teachers can know for certain that students are genuinely demonstrating what they've learned. So rather than getting rid of traditional tests, students should write them more frequently. Tests are the best way to assess students on the actual knowledge and skills acquired in a course. It's also important for provincial standardized exams to make a comeback. Unfortunately, standardized testing has been on the decline in most provinces. Relentless advocacy from teacher unions has pressured provincial governments to reduce the number of standardized exams, decrease their percentage value, and place less emphasis on subject-specific knowledge. Clearly, things are heading in the wrong direction. To ensure that students are consistently assessed fairly, it's important to administer standardized exams in a variety of subject areas and grade levels. Of course, one might wonder why it's necessary for students to learn how to write essays at all since ChatGPT can write in seconds what it once took a person hours to write. However, just as the invention of calculators did not make addition, subtraction, multiplication, or division obsolete, the advent of ChatGPT has not made learning how to write sentences and paragraphs obsolete. Writing is much more than a means to an end. The process of writing helps us formulate our thoughts, think through our positions, and respond to counterarguments. Typing a question into ChatGPT might generate a quick answer, but it will never replace the authenticity of a personally composed response. ChatGPT has the potential to be a real time-saver when writing banal introductory remarks for a meeting, putting together a company promotional brochure, or composing a generic tweet. However, it would be a huge mistake indeed for us to conclude that humans are no longer needed. Classic books such as J.R.R. Tolkien's "Lord of the Rings" will always remain head and shoulders above anything composed by an AI program. Technology is an impressive tool. But it remains just that-a tool. Let's not push traditional education aside. It is, in fact, more important than ever.

"Pupils Studying International Baccalaureate Will Be Allowed to Use ChatGPT in Essays"—Epoch Times—Leans Right

Pupils will be allowed to quote work generated by the ChatGPT artificial intelligence system in their essays, the International Baccalaureate (IB) has said. ChatGPT is an AI chatbot capable of producing content mimicking human speech. Accessible for free, the service can be used to generate essays, technical documents, and poetry. The chatbot has been banned in some schools worldwide after students were caught submitting automatically generated essays as their own work. But the IB, which offers four educational programmes taken by pupils at 120 schools in the UK, said it will not ban children from using ChatGPT in their assessments as long as they credit it and do not try to pass it off as their own. Matt Glanville, the qualification body's head of assessment principles and practice, told The Times of London: "We should not think of this extraordinary new technology as a threat. Like spellcheckers, translation software and calculators, we must accept that it is going to become part of our everyday lives." He said: "The clear line between using ChatGPT and providing original work is exactly the same as using ideas taken from other people or the internet. As with any quote or material adapted from another source, it must be credited in the body of the text and appropriately referenced in the bibliography. "To submit AI-generated work as their own is an act of academic misconduct and would have consequences. But that is not the same as banning its use." 'Sensible Approach' The IB's approach has won some support in the teaching profession. Geoff Barton, general secretary of the Association of School and College Leaders (ASCL), said: "ChatGPT potentially creates issues for any form of assessment that relies upon coursework where students have access to the internet. Allowing students to use this platform as a source with the correct attribution seems a sensible approach and in line with how other sources of information are used. "We would caution, however, that ChatGPT itself acknowledges that some of the information it generates may not be correct and it is therefore important for students to understand the importance of cross-checking and verifying information, as is the case with all sources. "What is important is that students do not pass off pieces of work as their own when this is not the case, and that they use sources critically and well." Sarah Hannafin, senior policy adviser at school leaders' union NAHT, said: "The International Baccalaureate seems to be taking a very sensible approach. We need to respond to technology as it develops, helping children and young people to evaluate the benefits and risks and to understand how to use it appropriately and effectively." Harder to Mark Schoolwork A survey by the British Computer Society (BCS), found that 62 percent of computing teachers said AI-powered chatbots such as ChatGPT would make it harder to mark the work of students fairly. Julia Adamson, managing director for education and public benefit at BCS, said: "Computing teachers want their colleagues to embrace AI as a great way of improving learning in the classroom. However, they think schools will struggle to help students evaluate the answers they get from chatbots without the right technical tools and guidance." She said machine learning needs to be brought into mainstream teaching practice, "otherwise children will be using AI for homework unsupervised without understanding what it's telling them." "Another danger is that the digital divide is only going to get wider if better-off parents can pay for premium services from chatbots-and get better answers," she added. School Bans The proposal to incorporate AI into teaching practices has not been accepted by all educators. In January, the New York City Department of Education (NYCDOE) has blocked ChatGPT access on its networks and devices amid fears that students will use it to cheat on assignments and other school tasks. NYCDOE spokesperson Jenna Lyle told Chalkbeat: "While the tool may be able to provide quick and easy answers to questions, it does not build critical-thinking and problem-solving skills, which are essential for academic and lifelong success." In Australia, the education authorities in several state governments-including New South Wales, Queensland, Tasmania, and Western Australia-have banned ChatGPT in their public school systems. Dangers of AI Many people have been raising alarm bells over the rising development of AI. In June of last year, Google put a senior software engineer in its Responsible AI ethics group on paid administrative leave after he raised concerns about the human-like behavior exhibted by LaMDA, an AI program he tested. The employee tried to convince Google to take a look at the potentially serious "sentient" behavior of the AI. However, the company did not heed his words, he claimed. Tech billionaire Elon Musk has also warned about the dangers of AI. "I have exposure to the very cutting edge AI, and I think people should be really concerned about it," Musk told attendees of a National Governors Association meeting in July 2017. "I keep sounding the alarm bell, but until people see robots going down the street killing people, they don't know how to react, because it seems so ethereal." Sam Altman, the CEO of ChatGPT creator OpenAI, said on Feb. 18 that it was "critical" for AI to be regulated in the future, until it can be better understood. He stated that he believes that society needs time to adapt to "something so big" as AI. "We also need enough time

for our institutions to figure out what to do. Regulation will be critical and will take time to figure out. Although current-generation AI tools aren't very scary, I think we are potentially not that far away from potentially scary ones," Altman wrote on Twitter.