

AI on Campus



- Using AI in the classroom
- Changing grading and student-behavior standards
- A boon to research and student affairs
- Spreading the word across campus

Last fall's emergence of ChatGPT prompted a spectrum of response so broad that it defies even a glimmer of accord. People on one end of that arc view the technology with anticipation and hope; those on the other, fear and loathing.

So far, the American public leans toward the anxious end. Nearly two in three U.S. adults say they do not trust generative AI chatbots and programs, seeing them not just as the latest tech disruption, but as

a threat to humanity, according to a [poll](#) conducted in the spring.

It's not just the public. Astonishingly, executives from AI companies have warned about the dangers that lurk in their technologies, going so far as to write strongly worded public letters ([here](#) and [here](#)) arguing that these bots pose a risk of human extinction, or advocating that the pace of the technology's development must be slowed so nations can better control it. Sam Altman, the chief executive at OpenAI, ChatGPT's developer, has



Partnering with Education to Transform the Student Experience

Over the past twenty years of my career, I've worked closely with a variety of leaders in higher education. And as part of my current role at Cisco, I meet regularly with chancellors, deans, chief information officers, and academic leaders.

Institutions of higher education are at an inflection point as education leaders grapple with lower student engagement and struggling course attendance, rising student drop-out rates, and new challenges faced due to the oncoming enrollment cliff. Many will look to attract new and non-traditional learners by leveraging technology to transform the student experience.

Importantly, student experience is intrinsically tied to digital experiences which is why we must start with Internet connectivity for all. Since Cisco's founding on the campus of Stanford University in 1984, developing the tools that power the Internet for the betterment of education has been in our blood and is core to who we are. Decades later, we are still partnering with education customers, working alongside them to offer asynchronous learning options; enable smart and connected campuses that empower students, faculty, and staff with seamless mobile and location services; and securing all users.

As the education market evolves and more devices are connected to the Internet, education and industry must continue to partner to ensure that all learners have access to secure, quality education. Using cutting-edge applications and the power of data analytics, universities can deliver students success through intelligent and flexible digital experiences, responding to [future learning trends](#).

Cisco partners with tens of thousands of universities, colleges, and K-12 school systems around the world to support their missions using trusted solutions for collaboration, security, mobility, and networking. This includes [Indiana State University](#), [Salve Regina University](#), and [California Baptist University](#) where we helped provide students, educators, and staff with the digital tools and connectivity they need to thrive. Our education experts are here to support you and are dedicated to helping you achieve your institution's mission.



Gary DePreta
Area Vice President, State, Local Government, and Education Markets

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The bridge to possible

[testified before the U.S. Senate](#) to urge for the regulation of his company's product and others like it — an unusual move in the high-tech world.

Meanwhile, generative AI is seen by labor unions and many political observers as a threat to entire categories of jobs. TV writers, airline pilots, radiologists, and others worry that generative AI tools might make them professionally obsolete.

And yet for all the fears, many tech experts tout the possibilities of generative AI as a timesaver, a bridge to greater efficiency and productivity, and a tool for creative information gathering. ChatGPT and its competitors — including Google Bard, Midjourney, and Microsoft 365 Copilot — possess the ability to quickly tap large data sets and then, with some human prompting, write copy that is clear, informed, and nearly instant, and in human language or computer code.

Even as professors and college leaders struggle to create policies to keep students from using generative AI to plagiarize others' work, about two-thirds of campus administrators and tech officers say they are optimistic about the new tools.

Along with the emerging stand-alone programs and bots, several companies working with large language models (LLMs) offer clients generative AI solutions that include time-saving code-writing in network security and service delivery.

Within higher education, that more sanguine view has taken hold — especially among educators and technologists who have become familiar with the latest generation of artificial intelligence. Even as professors and college leaders struggle to create policies to keep students from using generative AI to plagiarize others' work, about two-thirds of campus administrators and tech officers say they are optimistic about the new tools, according to a [poll](#) from Educause, a nonprofit association that advocates for the use of technology in higher education. More than 80 percent believe that generative AI will profoundly change colleges within the next three to five years.

Though there is much skepticism from scholars who say that previous generations of AI have yet to yield the productivity gains and positive disruption their makers had promised, colleges appear poised to perform due diligence on generative AI — which eclipses by several orders of magnitude the power of the algorithm-based, student-services-centered chatbots many institutions have been using for the last decade or longer.

“Colleges are taking the centrist position that they often take: ‘Let’s wait and see,’” says Ramón Alvarado, an assistant professor of philosophy and the director of the data-ethics program at the University of Oregon. “They have a lot of people talking to them right now — vendors, students, faculty, other industries. They might have a year or so to really figure this out.”

Just as Covid-19 forced institutions to convert to remote instruction on the fly, generative AI has administrators, educators, and college tech leaders pondering ways to put this latest digital genie to good use.

Using AI in the classroom

Though generative AI is a brand-new product, with ChatGPT appearing in

November, several enterprising faculty members and instructional designers have begun folding its capabilities into traditional [courses](#). Some have applied it to create syllabi, produce course materials, and broadcast assignments.

Professors at several institutions, including the University of Pennsylvania and the University of Rochester, have created classroom assignments that require students to directly interact with generative AI. They see using the new tools as akin to incorporating past generations of technology into education, such as allowing students to bring calculators to math class or requiring them to learn remotely.

"It's part of the ether now," says Randy Weinstein, vice provost for teaching and learning at Villanova University. "We have some departments, such as engineering, exploring how we can use generative AI to teach."

A Villanova summer program challenges students to apply generative AI to create computer code. Over eight weeks, students are paid a stipend to come up with innovative products.

"They're learning how to create a website or app with the help of AI," Weinstein says. "We're asking students to do what Google Labs does: blend a search engine with AI. It's where the world is headed."

Faculty members in two colleges at California State University at San Bernardino have created generative AI-centered courses. One explores the spaces where generative AI and journalism intersect. The other pairs an AI chatbot with extended reality (XR) to visually show kinesiology students how the human body works.

Several institutions, including Drexel University, are considering creating basic-level courses to teach AI literacy, as well as applied upper-level courses in some majors.

Using generative AI as a regular part of teaching and learning isn't popular with everyone. When the information-technology department at Indiana

"Generative AI is pattern-matcher, not a truth-seeker. It can't help students with critical thinking."

University recently sent out a campuswide memo urging faculty to use generative AI tools to create "lectures, essays, emails, reviews, courses, syllabi, posters, designs, and so forth," one longtime faculty member complained in a recent essay.

"People who are employed to use their minds are told by their own institution to step aside," Douglas Hofstadter, a professor of cognitive science at Indiana, [wrote](#). He compared using the new tools to "intentionally lying down and inviting machines to walk all over you."

Institutions must proceed with caution, others say.

"Generative AI is pattern-matcher, not a truth-seeker. It can't help students with critical thinking," says Steven Weber, vice provost for undergraduate curriculum and education at Drexel. "In classes where you're trying to help students develop critical thought, such as in lower-division courses, you might consider keeping it out of the curriculum." Once students develop the critical skills, the new AI could become a more appropriate option in upper-level classes.

Students in many disciplines, such as computer science, will need to learn generative AI to become viable in their professions, Weber adds. Many institutions can draw from years of experience teaching general AI and machine learning in tech majors.

Changing grading and student-behavior standards

To date, much of the campus planning and thought engendered by generative AI

has been focused on one area — student cheating. These tools are freely available on the internet. Since the spring semester ended, studies indicate that student use of generative AI plummeted after peaking in the spring, indicating they are using it specifically for academic purposes, says Lee Vinsel, associate professor of science, technology, and society at Virginia Tech.

Generative AI programs have meant that faculty members must conduct more detective work on student assignments. For college administrators, generative AI has caused much hand-wringing over policies governing cheating and plagiarism. Many institutions, including Villanova, have expanded existing honor-code standards, particularly regarding citation of materials used in an assignment, to include generative AI.

Others, including Drexel's LeBow College of Business, are forming working groups to determine whether to create an on-campus monitoring board that would oversee AI's role. Meanwhile, first-year writing teachers at Drexel gather at a roundtable to discuss the best ways to create student assignments that don't lend themselves to assistance from generative AI.

Along with adding rules regarding the use of AI into their honor codes and policies, some faculty members are considering changing how they assess student work.

"Should we also raise the standards for grades?" Vinsel says. "If generative AI saved them time, shouldn't students be able to polish an assignment and think more about it?"

Some faculty members have already reformulated their grading approaches.

Alvarado, at Oregon, once used students' writing as the basis for 60 to 70 percent of their grade. Now, he has reduced that to below 50 percent, basing half or more of an individual's grade on attendance and class participation.

"AI technology has reminded me about what's important about education and

human interaction, which is being there, being engaged, and talking with other thinking people," Alvarado says.

Each faculty member will have to decide what an honest use of AI is and what it isn't. When one of Weber's students ran his thesis through an AI chatbot to check whether his writing was correct and clear, the Drexel vice provost balked. "A thesis is an intimate reflection of a student's thinking," he says. "That was totally unacceptable to me."

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A boon to research and student services

While the use of generative AI in the classroom and in student assignments raises questions, it is seen much more clearly as a positive tool by researchers and those who oversee them.

Because it can amass and analyze large caches of data, generative AI can link researchers with studies related to their own work. While traditional research sites, such as PubMed, can also gather journal publications on a wide variety of topics, ChatGPT and its ilk can find them almost instantly.

"It just saves an enormous amount of time," says Philip E. Bourne, dean of the School of Data Science at the University of Virginia. "It eliminates a lot of search work you'd have to do previously. In theory, research can move faster."

Besides speedy retrieval and delivery of data, generative AI offers researchers

the chance to develop new search models. Virginia is considering methods for forming a central clearinghouse to scan data covering grant applications from different types of institutions, which would provide a shortcut to researchers who want to learn more about the range of inquiry in their fields, Bourne says.

Generative AI also engenders more optimism from people who work in college offices and student-services centers. Previous iterations of AI, primarily chatbots that link students and the public with institutions, have helped identify students who might need additional academic assistance or counseling, eased the course-registration process, and informed prospective students about admissions standards. At the same time, the bots have relieved some of the crunch on college staffers.

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That labor-saving aspect would be welcomed by overburdened workers in many offices, including those in academic advising, says Amelia Parnell, vice president for research and policy at NASPA — Student Affairs Administrators in Higher Education. Next-generation chatbots could take on such routine tasks as helping students register for and withdraw from courses.

Rather than cutting campus jobs, new AI tools could result in new positions for many student-services workers. “If AI can get students through regular tasks early on, we’ll begin to see new roles crop up,” Parnell says. Code writing, programming, and other skills may become integral to the future of such workers. “It’s not likely

that AI will replace humans. Students will always need human contact,” Parnell adds.

Other offices — business, communications, enrollment, human resources, student wellness — are likely to use generative AI bots to answer frequently asked questions, Alvarado says. At Seton Hall University, campus police officers are using the tools to shorten the time it takes to identify crime suspects in surveillance videos. Southern New Hampshire University is exploring ways to use generative AI to create “personalized tutors” — bots designed for each student.

Beyond helping students succeed, “Colleges recognize that there’s a growing role for generative AI because it increases efficiency,” says Kathe Pelletier, director of teaching and learning at Educause.

Spreading the word across campus

The Educause poll showed that faculty and staff members who have been exposed to the new technology are more likely to view it positively. For colleges looking to apply generative AI widely, educating administrators, faculty, and staff about its possibilities and perils has become paramount.

As interest bubbles up from students to faculty members to campus leaders, institutions are beginning to identify “AI enthusiasts” and tap them for roles educating others, says Vaughn A. Calhoun, dean of the Center for Academic Success at Seton Hall. He advises institutions to form strategic plans for employing AI and to collaborate with other colleges to learn how it might be useful.

One stumbling block for institutions is the reputation of past generations of AI, which had been created with algorithms that featured gender and racial biases and perpetuated inequities on campus. Though generative AI works differently, it still lacks the transparency that other technologies

contain, says Alvarado, the Oregon data-ethics director. Colleges will need to learn — quickly — what the ramifications of generative AI are, he adds.

Though there are few if any best practices regarding generative AI, notes Weinstein, of Villanova, some institutions are trying to get out in front of the issue. At Virginia, Bourne and others are forming the Futures Initiative to determine how best and most fairly to use generative AI and other emerging technologies.

Such efforts show that colleges are edging their way out of the darkness, observers say.

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“Colleges are in a great position to do this,” says Calhoun, noting that student governments and faculty members are holding meetings on AI. “Right now, we have many more assumptions than we have knowledge.”

*“AI on Campus”
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