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Creating the AI-Literate Campus: Advancing Skills for Faculty and Students

Engaging use among faculty and closing the AI skills gap among students

As the costs associated with attending college remain high, many students view the experience transactionally: The path towards a degree should help them prepare for a job, and the degree should secure that job for them.

According to EDUCAUSE's 2025 Students and Technology Report, 55 percent of current undergraduate students believe that proficiency with AI tools and technologies is crucial to their careers. Attitudes from employers reinforce these beliefs. In its most recent Future of Jobs Report, the World Economic Forum found that over the next five years, employers project that skills in artificial intelligence and big data will gain the most momentum in the workplace.

In spite of these realities, only 20 percent of college students report getting relevant training from their educational institutions. Some argue this disconnect is partly attributed to the overall slow pace of transformation inherent to higher education. In many more cases, it can be attributed to the wide gap in attitudes around AI between campus leadership and faculty and the students they serve.

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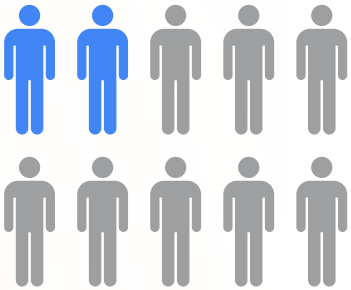

Source: EDUCAUSE. "2025 Students and Technology Report." April 2025.

AI's adoption by students as a core academic tool is now integral to the modern college experience, and students remain insistent on job-skills training. Their experience with AI contrasts with what's happening among faculty and staff, where many are just beginning to use AI tools and need guidance on when to use them to support their work and how to use them effectively.

In EDUCAUSE's 2025 AI Landscape Study, 68 percent of respondents reported that students use AI somewhat more or a lot more than faculty. The results are similar to a recent survey of college leaders conducted by the American Association of Colleges and Universities (AAC&U) and Elon University that found 93 percent believed that faculty unfamiliarity with AI tools poses many or some challenges to adopting AI in the classroom.

On top of the AI discussion, colleges are facing threats in the form of declining enrollment, decreasing public funding, and changing public perceptions, posing a serious threat to their future. Altogether these factors are pushing higher-ed institutions to launch AI-literacy programs and adjust their academic offerings to meet shifting demands from students and employers.

"A human who knows how to use AI will replace a person who doesn't know how to use AI," says Anand Padmanabhan, Vice President and Chief Information Officer at Fordham University. "So, AI literacy becomes pretty critical [for students]."

For some institutions, like Fordham, a systematic approach to AI across every level of the university — often with the support of public and private partners — has enabled the advancement of AI literacy among faculty, staff, and students (and, consequently, application of and expertise in AI tools). For many others, taking the initial steps towards AI literacy remains the biggest challenge.

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>
> **Anand Padmanabhan**
> Vice President and Chief Information Officer
> Fordham University

From Acceptance to Adoption: Defining AI Literacy and Determining a Playbook

AI literacy *is the ability to understand artificial intelligence concepts and technologies, including knowing how to: use and apply AI tools for various tasks; evaluate AI outputs critically and recognize its potential for bias, hallucinations (made-up information), and risks; and consider its broader ethical, social, and safety implications to cultivate responsible usage.*

But as Beth McMurtrie reports in *The Chronicle*, the term "can feel squishy," and the breadth and depth of who is considered AI-literate can vary from one institution to the next. At Barnard College, for example, a framework for AI literacy includes AI creation — an individual's ability to build on open APIs to create their own LLM or to use AI to develop new systems. UNESCO has created similar frameworks, broken down for students and for teachers. Even the American Library Association has drafted an AI competency document for library workers.

When it comes to assessing students' AI-literacy levels, their use of AI tools is clear; it's all the other components of AI literacy (evaluating outputs and considering responsible use) that college leaders and faculty are more worried about. This is reflected in the same survey from *The Chronicle*, with faculty and administrators rating the "spread of misinformation or false information" and "threat to academic integrity" as the top two potential negative impacts to arise from the use of AI. A 2025 Global AI Faculty Survey from The Digital Education Council found, similarly, that 83 percent of faculty members are concerned about students' abilities to critically-evaluate AI-generated output.

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Despite this, faculty must address the ubiquity of AI in students' lives today and in the future. According to a related student survey from the Digital Education Council, 86 percent of college students already use AI in their learning. "Students are getting used to using AI to help their everyday activities," says Jun Li, Professor of Technology and Operations at the University of Michigan's Ross School of Business. "Right now, they're using it to support their learning activity. And then in the future, they'll use it to support their tasks in the workplace."

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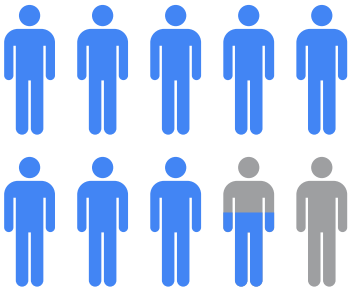

Source: Digital Education Council. "2024 Global AI Student Survey." August 2024.

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Among college leaders we spoke to, most agree that one of the biggest responsibilities for a higher-ed institution, in this moment, is to build the AI literacy of its staff and faculty before it redesigns academic programs for students. "There's no point in creating an interdisciplinary course in literary analysis and AI when the English professor doesn't even know what NotebookLM is," says one administrator. Universities that take a proactive approach to AI and work alongside faculty to develop policies around use, naturally, find more willingness from faculty in integrating the tools in the classroom.

Setting a Standard Framework for Campus-Wide AI Adoption at Fordham University

At Fordham, faculty and staff often seek guidance on what tools they can use and what tools to avoid, as well as "what they should put in the model and what they should not," says Padmanabhan. With the exception of researchers who might want to use other AI models for specific tasks, Fordham has made Google Gemini its standardized model for use across campus. Given the financial challenges facing colleges, the university wanted to prioritize affordability without sacrificing on the potential for high impact. Gemini gives Fordham access to a wide range of features and integrations — while being confident in the model's strong emphasis on security and privacy.

"We want to make sure that we're not using multiple models trying to accomplish the same thing." Focusing on just one model allows the university to create one standard framework for AI competency, he says. But before any member of faculty or staff is granted access to Gemini, they must take a one-hour training session that acts as an entrée to their AI literacy journey.

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"I think that can go such a long way in helping a faculty member feel more confident," says Drew Sidel, Head of North America for Google Workspace for Education. Sidel is focused on the impact of giving faculty access to AI platforms and providing them guidance on how to use them appropriately within an institution's academic policies. "If a college gives access to faculty, staff, and students to tools like Gemini and NotebookLM, that gives them a lot of confidence in those tools: 'I know it's safe if it's being provided to me at the organization-level, and that gives me more reassurance in incorporating it into my coursework or giving students guidance on using this in my class.'"

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Among higher-ed institutions, Fordham has been ahead of the curve when it comes to an institution-wide approach to artificial intelligence. “The turning point came when the president said, ‘I want my cabinet trained on AI.’ That set a new dawn for the university,” says Padmanabhan. He established an ambassador program made up of already-AI-literate members of staff who act as AI consultants to various academic departments and university offices (such as finance and human resources) and advise them on how to approach AI in their work. The university also has a Faculty Interest Group where just faculty members can come together to discuss how they’re each using AI to support teaching and research.

Best-in-class data protection

Gemini and NotebookLM are Core Services covered under Workspace for Education terms and are in compliance with many industry regulations, like FERPA, COPPA, and GDPR. User chats are not reviewed by humans or used to improve generative-AI models.

Setting a Standard Framework for Campus-Wide AI Adoption at Fordham University

Most notably, in 2023, the university launched the AI Vision Committee, a cross-departmental committee that evaluates the policies, strategies, and safeguards around using AI tools to support teaching and research across the university, effectively setting up one of the earlier instances of a campus AI council. Over the past year, there's been a lot of movement from college and university leadership on how to improve trust with faculty when it comes to implementing AI. And, overall, only one-fourth of faculty agree that their institutions are providing enough resources to train them in AI literacy.

The creation of these councils — which aim to consider and assess AI tools within the context of an AI-literacy framework — seeks to bring faculty sentiments closer to those of college administrators and students. The AAC&U's launch last September of an Institute on AI, Pedagogy, and the Curriculum to further AI literacy among its nearly 1,400 member institutions marked a significant shift in higher ed's hesitant approach to AI.

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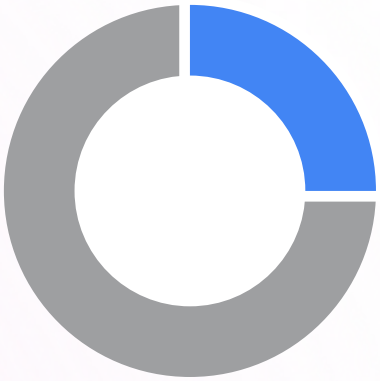


Source: Digital Education Council. "2025 Global AI Faculty Survey." January 2025.

Employers Expect AI-Ready Grads, But Are Universities Delivering?

"AI competencies and literacies are quickly emerging as necessary workforce skills," according to C. Edward Watson, Vice President for Digital Innovation at AAC&U, in a press release for the Institute on AI, Pedagogy, and the Curriculum. "This demands that associated learning outcomes become a part of our curriculum."

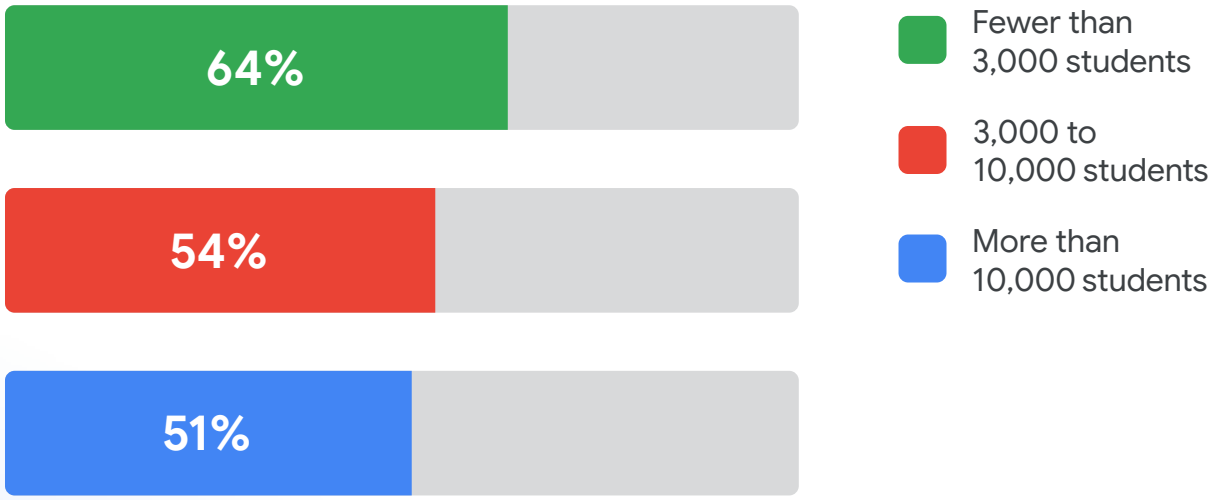
PwC's 2024 AI Jobs Barometer showed that jobs that require AI specialist skills have outpaced all jobs since 2016, with the number of AI specialist jobs growing 3.5 faster than all other jobs. These jobs range from more technical roles like AI and machine-learning engineers, AI data specialists, and AI security specialists, to roles where a thorough understanding of AI tools and functions support other functions, such as AI customer success agents, AI finance strategists, and AI content strategists.

Today's college students are primarily focused on aligning their college education with pathways into various careers. And, for many, they see artificial intelligence playing some role in their career — whether that's a profession directly related to AI or whether it's a job that interacts with AI in some capacity.

But the majority of higher-ed institutions aren't providing students with the necessary skills to help them succeed in the workplace. According to the AAC&U and Elon University survey conducted at the end of 2024, the majority of institutions ranging from community colleges to large research institutions believed that their spring 2024 graduates were not prepared to work in places where skill in using AI tools is important.

Employers Expect AI-Ready Grads, But Are Universities Delivering?

% of schools in each category by enrollment size whose leaders say their schools are *not very or not at all prepared* to use GenAI effectively for preparing students for the future



Source: AAC&U and Elon University's Imagining the Digital Future. "Leading Through Disruption: Higher Education Executives Assess AI's Impacts on Teaching and Learning." January 2025.

Evidence and Collaboration Are Driving AI Literacy and Workforce Readiness at San Diego State University

"What are these people in the industry going to expect of our graduates, in terms of their use of these artificial-intelligence systems?," says James Frazee, Vice President for Information Technology and Chief Information Officer at San Diego State University. "What are the expectations of a student's competency with AI if they're going to go into, say, pharmaceuticals?"

San Diego State is one of a handful of institutions taking a proactive approach to improving the AI literacy of its students and faculty. In the fall of 2023, the university conducted its first survey of students on AI, discovering that the university was not meeting students' expectations. The results of the survey helped to drive more productive conversations with faculty around how to bring AI into the classroom. "Providing evidence to faculty really helps to create the space that it requires to have those conversations — to talk with them about what the students have to say, what their opinions are, what their tool usage is, and what their expectations for us as a university are," Frazee says.

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Those earlier conversations helped to drive faculty interest and use of AI in their coursework. It also led to an improvement in student sentiments on how they felt the university was doing to expose them to AI tools, according to San Diego State's 2024 student AI survey.

In both years' surveys, one stat remained the same: 71 percent of students believed that AI will become an essential part of all professions.

Under Frazee, San Diego State created an AI microcredential that not only helps students improve their AI literacy skills, but also offers them a professional certification to relay their competency to employers. The Academic Applications of Artificial Intelligence course enables the university to immediately lay the groundwork for student AI literacy and, consequently, gives faculty more assurance in students' capabilities to critically evaluate AI outputs and to engage with AI tools more responsibly. The university has also enabled access to different AI tools, like the Gemini App and NotebookLM, providing students, faculty, and staff with a safe, private, and secure way to practice and hone their AI skills.

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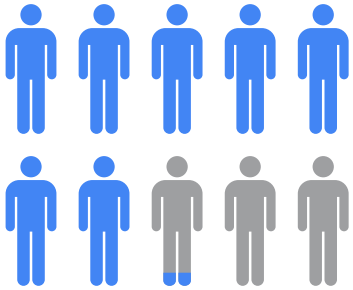

Source: San Diego State University. "San Diego State University AI Student Survey." October 2023, October 2024.

Evidence and Collaboration Are Driving AI Literacy and Workforce Readiness at San Diego State University

This first-year approach is also playing out at other universities, with the hope that instilling AI literacy earlier can encourage students to engage with the technology more responsibly over the long-term. At Worcester Polytechnic Institute, for example, a freshman seminar engages students in a research-intensive course focused on evaluating the implications and ethical issues involving AI. At Michigan, a similar approach is happening for business students.

"We're trying to make AI literacy and prompt engineering part of the freshman core experience," says Li at Michigan. "We want to make this one of the first things that students learn when they arrive at the business school because using AI is going to be critical for them when they graduate and start working."

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Students want answers about what AI means for their learning paths and where it plays into their future careers, according to Ethan Mollick in *Co-Intelligence: Living and Working with AI*. Mollick, an associate professor of management at the University of Pennsylvania's Wharton School of Business and the co-director of Wharton's Generative AI Labs. Mollick has made AI mandatory in all his classes for both undergraduate and graduate students. "The fact is that we live in a world with AIs, and that means we need to understand how to work with them," he writes.

In his book, one of Mollick's core principles is that "you should try inviting AI to help you in everything you do, barring legal or ethical barriers." That means bringing in certain AI tools to lend support whenever an opportunity presents itself. For higher-ed institutions, it can also extend to partnering with the organizations that create these tools.

Seeking Partners to Accelerate the Academic Mission

"Google is moving beyond just providing institutions the tools," says Steven Butschi, Director of Go-To-Market and Partnerships at Google for Education. "Now, we're actively partnering with higher-education institutions to embed their curricula and help them develop the skills needed to leverage AI tools more effectively."

As colleges face continuing challenges, more institutions are turning to public-private partnerships, or P3s, to help them better navigate the future. Seventy-four percent of higher-ed administrators reported seeing an increase in these partnerships on their campuses, according to the latest survey conducted by *The Chronicle* and P3•EDU. For example, institutional partners that turn to Google to provide Workspace for Education get access to tools like the Gemini App and NotebookLM free of charge with the same data protections.

For many institutions, the decision to team up with industry partners often boils down to speed. Can partnering with an organization allow a college to speed up adoption of new technologies? Can it lead to meeting the changing needs of students more quickly than they're currently capable of? Can collaboration help narrow the gap between current curricula and the needs of the workforce?

Universities like Fordham and San Diego State have turned to these kinds of partnerships to help them scale their abilities to develop AI literacy among their students, faculty, and staff. As public demands for higher education continue to focus on students' career prospects, colleges must find ways to engage in new ways with partners to keep pace.

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Director of Go-To-Market and Partnerships
Google for Education

Feeling overwhelmed? We're here to help.

Higher education is undergoing significant change, with AI playing a critical role in strategic plans for campus efficiency, academic innovation, and scientific discovery. Google is committed to supporting academic institutions of all sizes at every stage of their AI journey.

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