PUBLIC SECTOR

How AI Can Help Higher Education Capture a Once-in-a-Generation Opportunity

By Rachel Grace, Tejus Kothari, Heidi Kim, Bob Wu, Rajiv Shenoy, and Brad Allan

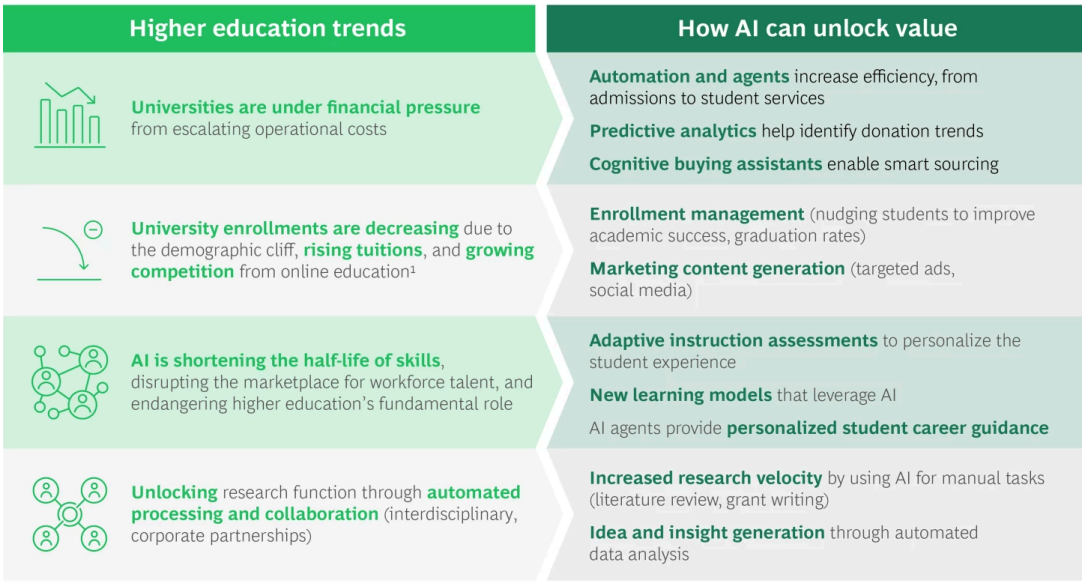
ARTICLE MARCH 18, 2026 12 MIN READ

Times are tough and getting tougher for higher education institutions. To maintain relevance and survive financially in an uncertain future, universities need to transform themselves. To meet this make-or-break moment, they must simultaneously modernize all parts of the institution, from back-office operations to the classroom.

The power of artificial intelligence to create new standards of excellence and efficiencies in every part of the institution is immense. Among the potential benefits are lower costs, reduced administrative burden, and higher enrollment and graduation rates. (See Exhibit 1.)

EXHIBIT 1

Amid Disruption, AI Can Transform Higher Education



Sources: American Council on Education; *The Chronicle of Higher Education;* College Board, *Trends in Student Pricing and Financial Aid 2023;* BCG research.
[1]Enrollments at four-year public colleges declined by –15% from 2013 to 2023 and tuitions rose 26% in the same period.

Along with needed improvements, AI brings cultural challenges that must be carefully managed. At universities, where human intellectual attainment and creativity are treasured, some regard AI as a potential threat to in-person instruction or an enabler of cheating or shortcuts that undermine learning.

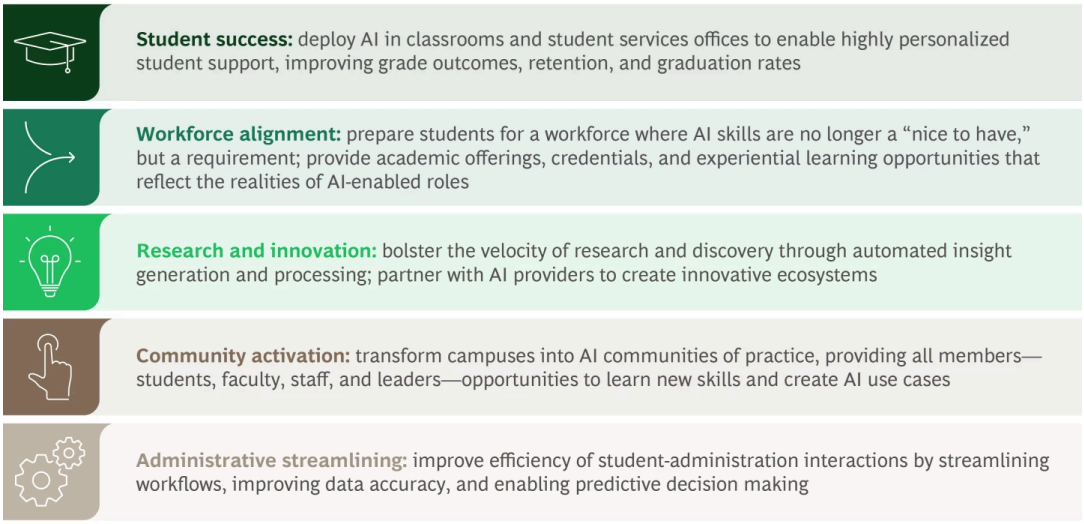
What's needed is a path to seize on the best of what AI has to offer while safeguarding and furthering the institution's educational mission and culture. Institutions also need to contend with an issue that extends beyond academia: according to recent BCG research, only 5% of companies across sectors are achieving the desired value from AI initiatives. Understandably, as in other sectors, many education leaders are overwhelmed by the complexity of the challenge presented. Some 67% of leaders say that they have not acted or have no clear AI strategy, according to a recent survey administered by *The Chronicle of Higher Education*.[1]

The good news is that higher education is well-positioned for success in the AI era, given its collaborative structures, critical thinking, subject area expertise, and culture of innovation. Those qualities helped some universities in the 1990s with the arrival of the internet, when those that proactively adopted the new technology made progress where others lagged.

The current moment is a similar generational opportunity for higher education leaders to pinpoint where AI can drive the most value and begin to pursue end-to-end transformation of functions, rather than isolated experiments. Drawing on our work with leading institutions and insights into global education trends, we have identified five domains where AI is already delivering benefits for universities. (See Exhibit 2.)

EXHIBIT 2

Higher Education Leaders Can Harness the Potential of AI Across Five Core Areas



Source: BCG analysis.

Where to Focus

Four institutions—Arizona State University (ASU), The Ohio State University (Ohio State), California Community Colleges (CCC), and Illinois Institute of Technology (Illinois Tech)—have made progress or scored early wins in the five domains.

Student Success. AI-powered tools can support universities' primary function—helping students to progress and achieve their academic goals—by helping personalize learning and identify or remove barriers. Illinois Tech, which has a student population of over 7,500 degree-seeking learners, is developing an AI-driven advising structure that integrates data from learning management platforms, academic performance, library usage, student financial information, and even dining data. The approach enables rapid interventions for students, including first-generation students who may need additional support, while protecting their privacy. "We're particularly focused on ways AI can optimize the student lifecycle, from pre-enrollment through graduation," said Mallik Sundharam, vice president for enrollment management and student affairs at Illinois Tech.

Leaders are also looking into creating an admissions ecosystem, where non-admitted or redirected applicants from one university could be seamlessly referred to affiliate or partner schools, including

community colleges, for better preparedness and success.

CCC is the largest higher education system in the US, with more than 2.2 million students across 116 colleges. Its Vision 2030 plan focuses on the importance of equitable access, support, and success throughout the system and maximizing AI literacy for students, faculty, and staff. Leaders are working with a California-based software startup, Nectir AI, on rolling out an AI-enabled teaching and learning assistant for students at all the system's colleges.

Workforce Alignment. Schools are using AI to design programs to match the real-world needs, tools, and evolving demands of the industries graduates are preparing to enter. Take ASU, which has a student population of 194,000. The university's student-run Next Lab provides opportunities for innovation at the intersection of AI, game technology, and spatial computing. Dan Munnerley, the Next Lab's executive director, emphasized that students often cite their experience in the lab as a key contributor to their career success after graduating from ASU.

Beginning with the class of 2029, every Ohio State undergraduate student will be expected to demonstrate AI fluency within their chosen field. Ohio State, which enrolls 65,800 students, received over $235 million in AI research funding between 2015 and 2022. "Within three to five years, AI fluency will be ubiquitous, fully integrated across disciplines and potentially no longer a distinctive program," said Shereen Agrawal, the executive director of the university's Center for Software Innovation. "We think we have a head start, and we want to have the discipline and process to continuously evolve."

Research and Innovation. AI is a natural fit for helping institutions promote R&D and innovation by helping to speed up discovery processes, augment productivity, lower barriers to collaboration and expand who can participate in research. AI(X) Hub at The Ohio State University, a university-wide research center of excellence linking 15 colleges, enables collaborative R&D across engineering, medicine, agriculture, social sciences, business, and the humanities.

Community Activation. Institutions are transforming their campuses into AI communities of practice by supporting and promoting AI education for students, faculty, staff, and leaders. As one ASU representative put it, "Building the community is just as important, and harder, than building the technology." Leaders hope the initiative will introduce AI in an ethical manner that does not alienate community members and instead builds community and openness to AI.

One by-product of this network effect is CreateAI, a model-agnostic and cloud-flexible platform that lets ASU community members—students, faculty, and staff—experiment with more than 40 large language models to develop custom AI tools, with no coding or technical experience required.

"AI is here, and as a result we have to work with teams to harness the possibility of the technology in a responsible way and consistent with our shared system values," noted Chris Ferguson, the executive vice chancellor of Finance and Strategic Initiatives at CCC. The system has developed memoranda of understanding with Google, Microsoft, Adobe, and IBM to provide access to AI training and certifications, laying the groundwork for future system consideration.

Administrative Optimization. University leaders are finding that AI delivers the greatest impact by streamlining cumbersome student-administrative interactions and important-but-time-consuming faculty duties such as content development. ASU is using AI assistants and chatbots to achieve significant savings in areas such as accounts payable, student support, and infrastructure management. An AI Innovation Challenge generated hundreds of proposals and led to 250 efficiency-boosting projects across administrative and other functions. Some examples include:

- **Financial aid note-taking assistant:** a pilot automates staff documentation to free time for 1:1 student support, a critical improvement given the complexity and importance of financial aid for improving access for students.
- **Agentic medical case study creators:** faculty at ASU Health, the university's medical center, are using an AI agent to develop case studies for medical students, saving faculty time on content development.
- **Quiz creators:** ASU faculty can use a multistep agentic quiz creator to generate questions from course content with the appropriate cognitive load, distractors, and detail.
- **Course articulation:** an AI tool searches course catalogs of other universities, building a database that helps transfer students translate credits efficiently and stay on track to graduate.

Illinois Tech has used AI and cloud technologies to reimagine the pre-enrollment experience including the college admissions process. The changes have reduced applicant transcript evaluation time from 36 days to less than one day, without added cost to students, resulting in a 30% increase in enrollment.

CCC leaders hope to achieve greater understanding of AI-enabled processes and prepare students with skills required for today's employers, while preserving autonomy for the colleges to select the tools that are aligned with systemwide principles. It is using an AI tool to combat applicant fraud, which caused $11 million in financial aid losses in 2024, with 31% of applications identified as fraudulent. At one district, AI detected twice as many fraudulent applications as a manual review.[2]

Moving Up the AI Maturity Curve

Recent BCG research found that organizations typically progress through four stages of AI maturity. (See Exhibit 3.) Many organizations remain in the tool-based or pre-tool-based stages of their AI journeys, however, with 60% of surveyed organizations reporting they are still at the "stagnating" or "emerging" levels of AI implementation and value capture.

This is because organizations implementing AI typically spend most of their focus on the algorithm—selecting, developing, and implementing the right tool. In fact, the successful ones recognize that the hardest part of transformation is not the technology but the elements that support it—people and processes. According to BCG's 10-20-70 principle, about 70% of AI transformation success comes from effective organizational design, talent development, and change management; 20% from the right technology infrastructure, and only 10% from the algorithms and models themselves.

The 5% that are AI-future built firms share some key characteristics:

- Their AI strategy is closely aligned with their organizational strategy, and efforts are focused on the largest, most meaningful value pools, not disparate use cases.
- They work top-down and bottom-up simultaneously, setting a bold north star for the future while realizing incremental value in the near term.
- They work based on the 10-20-70 principle, concentrating efforts on people and organizational processes.
- They appoint accountable leaders and build multiyear strategies.
- They design their tech stack for adaptability, with use cases and systems that allow for iterations, swap-ins, and partial solutions.
- They govern their transformation centrally, with a high degree of involvement by leadership and meaningful time spent on leadership education.

As universities move beyond pilots and up the maturity curve, leadership can be a powerful enabler by setting ambitious goals—reimagining how AI can coordinate processes across the institution and aligning long-term strategy with the highest-impact opportunities.

One promising frontier is agentic AI: systems that can autonomously plan, react, and execute tasks in areas such as student support. AI agents can orchestrate administrative workflows, with humans in the loop to provide judgment and quality control. (See Exhibit 4.) At ASU, technology leaders are exploring the use of AI agents in faculty workflows, particularly instructional content development, which has shown promise in alleviating faculty workloads.

Executing the AI Transformation

Institutions can set the stage for successful AI transformation by embracing six success factors.

Set a north star for the transformation and identify where it fits in overall strategic planning processes. A well-prioritized roadmap can help reallocate millions of dollars toward mission-critical initiatives like student success or research innovation. For example, CCC and Ohio State integrated their respective AI Workplan and AI Fluency initiatives into broader five-year and 10-year strategic plans.

Focus efforts on the highest-value areas and functions rather than deploying ad hoc use cases across functions. By conducting a diagnostic and prioritization of the main potential value pools that the institution stands to unlock from an AI transformation, leaders can uncover hidden opportunities across people, processes, and technology. For example, leaders at ASU believed that AI had the greatest potential in reducing friction in student and faculty touchpoints with administrative processes. They are in the early stages of developing AI agents for instructional content creation that could streamline these processes.

Illinois Tech initially focused its AI efforts on pre-enrollment and admissions to improve efficiency and support enrollment growth. By significantly reducing application review time, university leaders were able to demonstrate the value of AI in streamlining the student journey and accelerating decision making.

Identify ROI metrics early and refine often. Institutions should take the opportunity in the foundational stage to identify ROI targets for measuring progress and maintaining accountability. Good business case discipline, including periodically revisiting initial assumptions about direct and indirect costs, is vital to achieving desired outcomes. Ohio State established metrics to gauge AI literacy for both students and faculty, focusing on workforce preparedness and faculty and staff uptake as key performance indicators.

Align people and talent with strategic goals. BCG research has found that access to targeted training and coaching opportunities can increase adoption and regular usage of AI in the workplace by 14–19 percentage points. This is particularly relevant for higher education, where collaborative training models can help create communities of practice around AI. For example, as part of its AI(X) Hub initiative, Ohio State leveraged a "train-the-trainer" model, identifying champions and ways to help faculty incorporate AI in their curriculum.

Engage in a community-driven process to enable broad buy-in. Leaders must run the transformation in a way that recognizes and benefits the institution's culture. Long-term adoption requires governance and capability-building: change management and engagement of stakeholders, development of strategies to govern the adoption, and implementation of AI to promote institution-wide buy-in. For example, Ohio State took a strategic approach to faculty engagement, working with colleges and departments to develop curriculum roadmaps to support AI fluency. Leaders set up a cross-college faculty council and engaged a meaningful cohort of faculty fellows to help develop learning resources and strategy.

Build adaptable and dynamic tech stacks. It is important in a rapidly changing environment to stay flexible by having an adaptable infrastructure. Institutions that build adaptable IT frameworks can support future AI innovations, experiment with tools, and integrate emerging AI technologies.

For example, all four institutions are embracing a culture of platform diversity, to create custom use cases and enable various benefits, such as different training opportunities for faculty and staff.

The age of AI presents higher education with a once-in-a-generation opportunity to redefine its value and impact. Universities that move beyond pilot phases decisively, anchoring AI transformation in mission, culture, and strategy, will not only strengthen their operational and financial resilience but shape the future of learning itself.

Authors

Rachel Grace

Managing Director & Partner
Washington, DC

Tejus Kothari

Managing Director & Partner
Chicago

Heidi Kim

Managing Director & Partner, BCG X
Los Angeles

Bob Wu

Partner
Boston

Rajiv Shenoy

Partner & Associate Director
Dallas

Brad Allan

Senior Manager, BCG Vantage
Washington, DC

ABOUT BOSTON CONSULTING GROUP

Boston Consulting Group partners with leaders in business and society to tackle their most important challenges and capture their greatest opportunities. BCG was the pioneer in business strategy when it was founded in 1963. Today, we work closely with clients to embrace a transformational approach aimed at benefiting all stakeholders—empowering organizations to grow, build sustainable competitive advantage, and drive positive societal impact.

Our diverse, global teams bring deep industry and functional expertise and a range of perspectives that question the status quo and spark change. BCG delivers solutions through leading-edge management consulting, technology and design, and corporate and digital ventures. We work in a uniquely collaborative model across the firm and throughout all levels of the client organization, fueled by the goal of helping our clients thrive and enabling them to make the world a better place.

1 *The Chronicle of Higher Education*,*Will AI Reshape the Value Proposition of Higher Ed?*, 2025.

2 Michael Burke, EdSource, "How California Community Colleges Are Using AI to Battle Financial Aid Fraud," *inewsource*, September 3, 2025.