

AI is a tool for progress in higher education

Lenovo believes that AI will help faculty, administrators, and students by improving learning experiences, maximizing efficiencies across the campus, and protecting the community from many physical and cybersecurity threats.



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AI helps transform teaching and learning

Higher education seeks to elevate learning experiences and provide the world with well-informed professionals who are taught by experts, using the most effective tools and techniques. AI is becoming one of those most effective tools, and the timing couldn't be better to become an adopter.

According to the National Center for Education Statistics, spending for higher education instruction has been on the decline for a decade — **from 32% of spending at a four-year public college to only 27%.¹** At private colleges, the decrease was similar, from 32% to 29%.¹

AI can help make the most of that limited funding by freeing up more of the faculty and students' time for teaching and learning.

The average higher education student used to spend 40 hours a week in class and studying. That has now decreased to under 30 hours.¹ Students can maximize those precious hours with AI tools.

AI offers empowerment and support for students with personalized learning using analytics, smart content, AI teaching assistants, and tutoring. Institutions should consider advocating and initiating student- and educator-driven AI training programs.

As the possibilities for AI in higher education learning continue to grow, the responsibilities for safe, effective management of AI also continue to grow.

When implementing AI in the classroom, the following factors are important:

- Providing equitable access to devices and AI platforms through smarter classrooms, labs, and campuses
- Offering professional development to faculty on how to use AI to create more efficient workflows, find instructional resources, and implement as a teaching and learning tool
- Redefining assessments based on the new processes and capabilities offered by AI
- Initiating programs for student-driven AI learning and innovation
- Educating students on AI bias, copyright infringement, fact checking, and ethical uses
- Ensuring ethical use of AI by creating policies to support safe and responsible use

The University of North Carolina's Blue Sky Innovations, with the help of the Lenovo AI Discover Lab, is helping a new generation of students create immersive storytelling experiences using AI and AR/VR. See how their low-cost volumetric capture studio, robotic arm, drones, and robot journalist applications use AI to create human-centered innovation. **Watch the video.**



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AI helps maximize efficiency

AI has the ability to streamline workloads for everyone in the institution.

AI tools can help faculty reallocate time from teaching preparation and administrative tasks to research and student contact. These tools can:

- Streamline administrative workflows
- Automate grading
- Automate parts of lesson planning and teaching material creation
- Offer recommendations for course improvements
- Personalize teaching materials to the needs of the students
- Spot trends in student performance

Faculty and students need support to make the most of their AI experience. The infrastructure that makes learning possible at the institution is built and maintained by administrators and IT professionals who face their own challenges with overwhelm and retention. AI tools offer many of the same efficiency benefits to these professionals but on a grander scale.



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With AI tools at the ready, administrators can:

- Provide just-in-time info and support via chatbots for student services, admissions, and health centers
- Automate report generation
- Follow up automatically with prospects for enrollment, advancement, or fundraising
- Support edge AI technology to reduce latency
- Reduce power consumption and enhance data center efficiency
- Reduce device downtime with predictive analytics



AI can help faculty maximize efficiencies in their research workloads. Access to the Lenovo AI Discover Lab and Lenovo ThinkSystem servers, equipped with Intel® Xeon® Scalable processors, has provided researchers at North Carolina State University the performance efficiencies needed to push the boundaries of geospatial research. **Discover how.**

AI helps protect faculty, staff, and students

AI has been used for years by institutions to help predict, detect, and manage cybersecurity threats and network intrusions. However, higher education has not kept pace with security transformation as compared to most sectors of the economy. **In fact, higher education is slower to recover from cybersecurity attacks than any other economic sector.**²

AI transformation initiatives at institutions must at least keep pace with other economic sectors — especially when safeguarding the next generation of learners. This includes protections for data and privacy — starting with the supply chain of vendors and continuing through the hardware, software, and services connected to the institution.

Cybersecurity is just one of many kinds of protection AI offers. While online security is critical, **85% of security breaches involve human error.**³ AI can be used to predict where and how these breachers will occur.

AI is also being used for real-world security on campus to detect physical threats and weapons using computer vision-based AI tools. These same tools can learn the behavioral patterns observed on campus and raise alarms when a change in those patterns presents a possible security issue.



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While the benefits of AI are tremendous for education institutions and stakeholders, they must be aware of the challenges as well. The most serious risks and challenges at this stage in the evolution of AI include:



Misinformation and deepfakes

AI can have “hallucinations,” which is misinformation that is presented, confidently, as truth. Plus, AI-created images, video, and audio that appear to include authentic people and situations can be easily faked.



Data and privacy concerns

Exposure or theft of user data is possible when users enter sensitive data into an AI tool that is not capable of “forgetting” the information. Weak privacy policies on AI platforms can add to the problem. On-premises privately developed and implemented large language models (LLMs) can offer students and faculty many of the benefits of generative AI without as many security concerns. Lenovo AI Discover Lab can help you set up a private deployment.



Responsible AI and ethical uses

Popular AI tools are often developed in unregulated ways that are only now being investigated in courts for possible copyright infringement, invasion of privacy, or trademark violations. Algorithmic bias also plays a role, as AI tools only learn from the content they’re fed — they don’t consider everything humans take into account when making decisions.

Institutions can help ensure the safe use of AI tools by partnering with experienced AI experts to:

- Establish responsible AI review protocols
- Mitigate data privacy risks
- Predict, identify, and repair cybersecurity breaches



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Lenovo is your trusted partner for higher education security

Higher education IT professionals rely on Lenovo for smarter devices, expertise, and services tailored to meet the ever-increasing needs of the institution:

- Unmatched built-in security with Lenovo ThinkShield, Intel® Hardware Shield, and Windows 11 Pro
- Windows 11 is the most secure Windows yet with multiple layers of protection
- High-performance devices perfect for training LLMs, like the Lenovo ThinkStation PX powered by 4th Gen Intel® Xeon® Scalable processors
- Close partnerships and a thorough reference architecture to enable secure, private, on-premises implementation of generative AI
- Expert contract and compliance management
- Multiple US government certifications for public-sector partnerships and device durability
- Rigorous supply chain transparency from R&D on up
- Extensive support and service options for the entire lifecycle of your devices and solutions

intel.
XEON

Windows 11

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Implement AI responsibly with Lenovo

Institutions, faculty, and students understand the opportunities AI presents. **25% of higher education institutions have already begun implementing AI tools**, and 44% have it in their short- to medium-term plans.⁴ Nine in 10 teenagers surveyed say they want AI instruction.⁵

For successful implementation of AI tools, what institutions need are trusted, experienced partners for guidance. In fact, 50% of institutions say the lack of a strategy is the biggest obstacle holding them back from adopting AI.⁴

As a result, 52% of institution employees surveyed did not know how AI tools were being used for faculty and staff activities.⁶

Lenovo can help your institution plan, implement, and grow the use of responsible AI on campus. We believe AI powers institutional innovation to improve the learner, educator, and researcher experience while simultaneously protecting data and enhancing infrastructure.

The Lenovo AI Innovators Program includes **more than 150+ turnkey AI solutions from 45 partners** to accelerate the development and implementation of the perfect AI solution for each institution.

The Lenovo AI Discover Center of Excellence provides access to Lenovo data scientists, AI architects, and engineers to help explore, deploy, and scale AI solutions.

The Lenovo Responsible AI Committee helps customers with their approach to designing, deploying, and using AI ethically, helping organizations understand and address privacy, fair usage, diversity, equity, inclusion, and accessibility considerations.

Lenovo believes in responsible AI implementation through:



Diversity and inclusion



Privacy and security



Accountability and reliability



Explainability



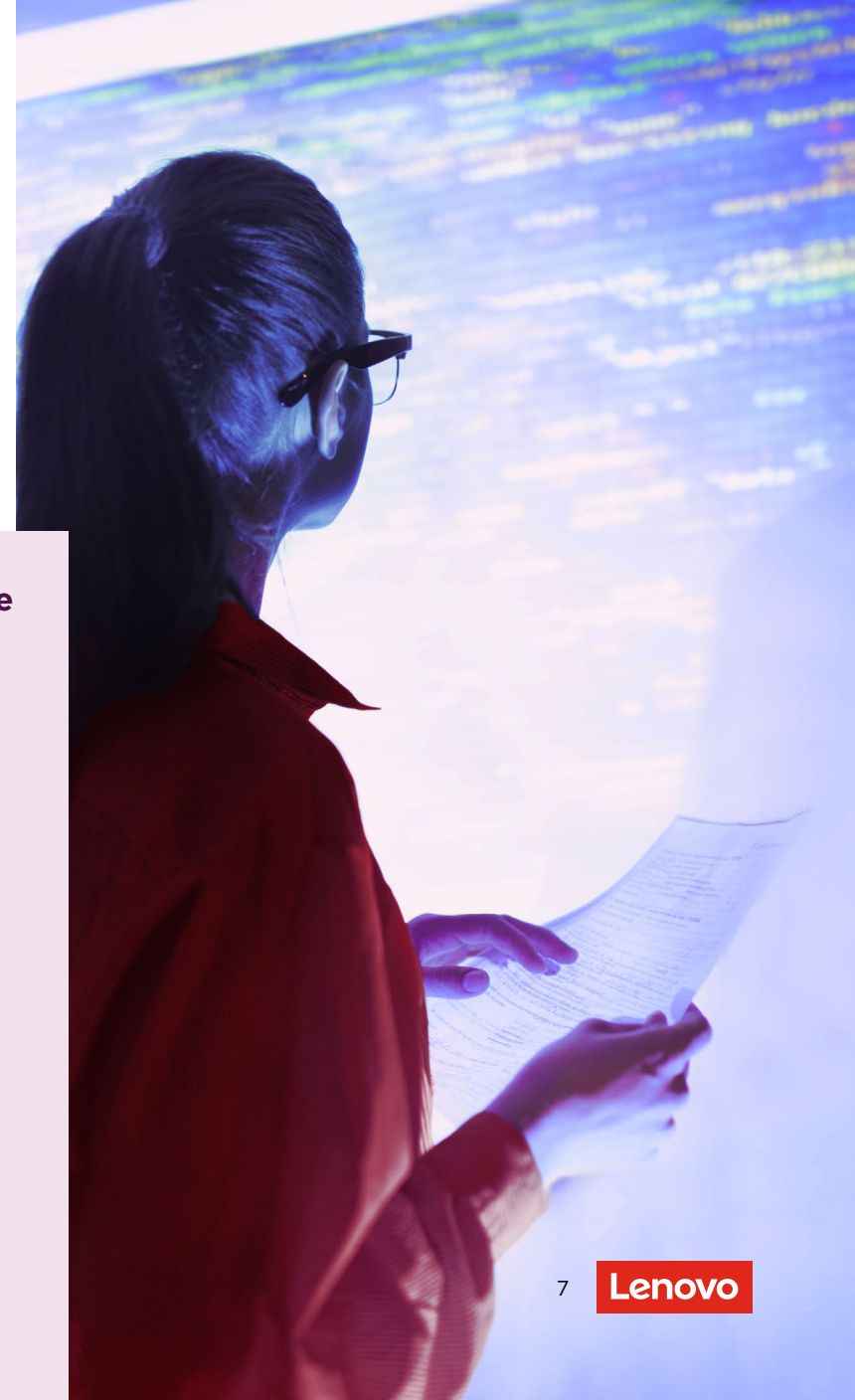
Transparency



Sustainability and social impact



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Explore solutions for your higher education AI implementation [here](#).

Contact the AI Discover Lab at AIDiscover@lenovo.com

Sources

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