APPROVAL OF HONORS PROGRAM SENIOR PROJECT

Candidate

Wilson McMinn

Project Title

The Transformation of the Universities: A Strategic Analysis of Artificial Intelligence in Higher Education

This Senior Project is approved as acceptable

Project Director

Dr. Paul Ewell

Committee Member

Ms. Jamie Hathaway-Pollard

Committee Member

Dr. Katrina Sweet

Honors Program Co-Director

Dr. Bill Yankosky

Honors Program Co-Director

Dr. Fred Sanborn

April 28, 2026

The Transformation of the Universities: A Strategic Analysis of Artificial Intelligence in Higher Education

Wilson P. McMinn
North Carolina Wesleyan University
February 22, 2026
Taylor Crocker Honors Thesis

Table of Contents:

1. Introduction……3
2. Strategic Transformation and Institutional Competitiveness……..4
3. AI-Driven Operational Efficiency and Strategic Planning……...6
4. AI in Enrollment Management and Predictive Modeling…….8
5. AI-Driven Student Success and Retention Strategies……9
6. Mental Health and Campus Well-being……..12
7. AI in Instruction and Teaching Effectiveness……..14
8. Smart Campus Infrastructure and Sustainability……...16
9. Governance, Ethics, and Risks of AI in Higher Education……...19
10. Institutional Literacy……22
11. Workforce Readiness……22
12. Conclusion……...24
13. Works Cited……26

Introduction

The traditional higher education landscape is facing a state of profound transition. Often characterized by institutional leaders who refuse to adapt, and where traditional business models are undergoing critical changes. As of 2026, the university sector faces a convergence of external pressures, including a projected 13% decline in domestic student enrollment through 2041, significant cuts in state funding for public universities, and a sharp decline in international graduate enrollment (“2026 Higher Education Trends”). Within the university setting, artificial intelligence (AI) has transitioned from an experimental classroom tool to a core component of institutional infrastructure (“Business Reimagined: How AI Is Changing the Way We Operate”). For university administrators and business leaders, AI represents more than a tool for automation. AI represents one of the largest building blocks for organizational growth and transformation in higher education, with the potential to address critical institutional challenges while enhancing the value of a college degree. (“2026 Higher Education Trends”). Implementing AI into a university setting is the most necessary improvement in higher education.

The integration of these technologies is no longer an optional enhancement but a strategic imperative. Organizations that recognize these shifts early, viewing AI as a "business-critical infrastructure" rather than a marginal cost, are gaining significant competitive advantages by reimagining how they create value and engage with stakeholders and students alike (“Business Reimagined: How AI Is Changing the Way We Operate”). This transformation requires a new understanding of how AI-driven

systems influence student recruitment, academic persistence, facilities management, and teaching methodology, all while navigating the complex ethical terrain of AI-driven governance (Tsai). By examining the multi-faceted benefits of AI through the lens of institutional ROI and operational efficiency, this analysis provides the comprehensive framework for understanding the impact of artificial intelligence currently reshaping the American university system.

Throughout this study, I will aim to answer the following research question: at what point does the integration of artificial intelligence improve operational efficiency, student outcomes, and institutional competitiveness in higher education, while mitigating risks at the same time?

Methodologically, this research paper is a conceptual and analytical literature review, combining already existing academic studies, institutional reports, and case-based evidence. Rather than creating and conducting original experiments and testing, this study evaluates documented implementations of AI across several different universities to identify patterns of impact, return on investment, and strategic implications. This approach allows for a clear and comprehensible understanding of both the opportunities and limitations that AI brings to higher education.

Strategic Transformation and Institutional Competitiveness

The traditional financial foundations of higher education are currently under extreme stress, with over 50% of private universities rated by S&P Global reporting operating deficits as of 2024 (“2026 Higher Education Trends”). The emerging fiscal reality has

forced a shift in the institutional conversation from the "cost of college" to the "return on a credential" (“2026 Higher Education Trends”). In this context, AI serves as the primary engine for driving this new value narrative. By aligning academic programs with present-day labor market data needs and enhancing the efficiency of university research, universities can reposition themselves in a global learning and development market that now exceeds $350 billion annually (“2026 Higher Education Trends”).

The adoption of AI is tied to national competitiveness and the ability of universities to serve as powerhouses of innovation. Leading institutions are moving toward a "hybrid computational model" that balances scalability with data sovereignty, often investing in specialized AI systems. (“Business Reimagined: How AI Is Changing the Way We Operate”). These specialized AI systems allow universities to build unique capabilities that enhance their research prestige and attract high-value sponsored research, which has seen a necessary reset as federal funds become harder to achieve.

The use of AI is having a big impact on the economy. One way it's doing this is by making the discovery process more efficient. For example, at the University of North Carolina at Chapel Hill, AI is a key part of the school's "Research Roadmap". It helps find patterns in large amounts of data and test out ideas in many different fields, from biology to history. This doesn't just accelerate the process of turning discoveries into real-world results, but it also teaches students the technical skills they need to succeed in a world where AI is increasingly important. The goal is to make sure students have skills that are uniquely human, like being able to communicate, make good judgments,

and work well with others. As AI shows us what it can and can't do, these skills are becoming more and more essential. By focusing on these areas, we can make sure students are prepared for a future where AI is a major part of the economy.

AI-Driven Operational Efficiency and Strategic Planning

Using AI in university financial departments can have a positive impact the moment they are implemented. Research strongly suggests that it can help cut costs and make forecasting and risk management more accurate. This means that university business offices can make complex financial processes easier and handle smaller budgets easily.

Business Domain	**AI Application**	**Impact on Higher Education**
Strategic Planning	Predictive Analytics	Enhanced agility and data-driven execution
Financial Operations	Process Automation	Reduced costs and improved forecasting accuracy
Marketing	Personalization	Increased engagement and tailored recruitment strategies

Customer Service	Generative Chatbots	24/7 student support and improved satisfaction rates
Human Resources	Talent Sourcing	Optimized recruitment and initial candidate screening

(Gabelaia and Hendieh) (Machucho and Ortiz)

The adoption of these AI tools is widespread across all industries. Businesses are moving towards a heavy adoption of AI, with 56% of surveyed businesses using AI for customer service and 46% for CRM systems (Gabelaia and Hendieh). In a university setting, this translates to improved student relationship management, where personalization, ranging from customized marketing to tailored academic advising, helps build institutional loyalty and trust (Bombalier). By automating repetitive administrative tasks, AI frees human personnel to engage in the high-value, relational work that technology cannot replicate (Seril).

Many companies are now using artificial intelligence tools, with over half of them using it to help with customer service and almost half using it for managing customer relationships. This trend is also being seen in universities, where AI can help improve the way students are supported and advised. By using AI to personalize things like marketing and academic advising, universities can build stronger relationships with their

students and increase loyalty and trust. At the same time, AI can take care of routine administrative tasks, freeing up staff to focus on the more personal and relational aspects of their work that are harder to automate. This can lead to a better experience for students and more effective use of staff time.

AI in Enrollment Management and Predictive Modeling

Enrollment management used to be a bit of a guessing game, with schools often reacting to changes in student behavior after they happened. But now, with the help of artificial intelligence and predictive analytics, it's become a more proactive process. This means that enrollment leaders can use real-time data to make informed decisions and anticipate what might happen next. This is especially important in today's challenging environment, where schools are dealing with things like delays in financial aid applications and fewer students actually showing up on campus. By using university specific data to predict what “might” happen, schools can stay one step ahead and make plans to handle any potential issues that might come up.

Western Connecticut State University has shown how AI can change things in recruitment. The university was dealing with problems because of changes in financial aid across the country. To tackle this, they used a tool called Othot Analytics to test different scenarios and see what would work best. This meant they could test different ways of distributing financial aid awards and figure out exactly what changes would attract more students while keeping costs under control. The university's success changed right away and in a way that could be measured.

WCSU Metric (2023-2024)	Impact of AI-Driven Intervention
First-Year Enrollment	20.7% Increase
Net Tuition Revenue	>$2 Million Increase
Discount Rate	2% Reduction
Enrollment Yield	1% Increase

(Liaison)

By moving beyond descriptive statistics (reporting what happened) to prescriptive analytics (identifying what should be done), WCSU stayed ahead of the issue rather than falling victim to it (Liaison). This example demonstrates that AI-powered tools are designed to better the work of enrollment professionals, delivering clear insights that improve decision-making without requiring multiple university employees to make one decision.

AI-Driven Student Success and Retention Strategies

Today, colleges need to tailor their approaches to each student's needs. With the help of artificial intelligence, schools can now group students in a more detailed way, looking at how they might respond to financial aid changes or how likely they are to enroll based on how they've interacted with the school before. For instance, Indiana University of Pennsylvania used a special analysis to figure out how students would react to different

types of financial aid. This helped them keep 90% of their students from one semester to the next, and also saw a big jump in the number of students returning the following year. This kind of personalized approach can make a big difference in how well students do and whether they decide to stay in school. By using AI to understand what makes each student unique, colleges can create strategies that are more effective and help more students succeed.

Using artificial intelligence in this area also helps with a problem called "summer melt". This is when students who have been accepted to a university don't actually enroll in the Fall. It happens because of all the administrative tasks they have to do. Georgia State University is a great example of how to solve this problem. They used a chatbot called "Pounce" to remind students to finish their enrollment steps. This strategy reduced the number of students who didn't enroll by up to 21%. The chatbot could handle 80% of the routine questions that students had, which meant that human advisors weren't overwhelmed. This system is available 24 hours a day, 7 days a week, which is helpful for students who have jobs and families. They can get the support they need at a time that's convenient for them.

Using artificial intelligence to help keep students in school is a big plus for colleges and universities. It's a lot cheaper to keep a student already enrolled than to find a new one. With AI, schools can now spot students who are struggling early on, and instead of just reacting to problems as they come up, they can take action to help before things get

bad. This means universities can move away from just dealing with crises as they happen and start being proactive about supporting their students.

Georgia State University is a great example of how schools can use technology to help students succeed. They created a special system to keep an eye on how students are doing, looking at over 800 different factors that might affect their progress. This system, called MAAPS, helps advisors figure out which students need extra help and makes sure they get the support they need. As a result, the university saw a dramatic jump in graduation rates. An estimated 67% more students were graduating after ten years of implementing and refining their system. The implementation of this AI tool was a huge success, especially for students who might have otherwise struggled. In fact, the data shows that students who received this extra help were 7% more likely to graduate, which is the difference between earning a degree and dropping out for some students. Additionally, this system seemed to work especially well for students who might have faced extra challenges, like students who were the first in their family to go to college. This success has been scaled through the National Institute for Student Success (NISS). In 2022, the NISS partnered with seven public universities in Georgia to implement these analytics-driven playbooks (NISS and Renick). The following diagram shows the changes the AI tool created during the NISS partnership with Georgia Universities.

Institutional Group	Retention Gain (Year 1)	National Comparison
NISS Partner Cohort (Avg)	+8.8 Percentage Points	4x National Average
Black Students (Cohort)	+10.8 Percentage Points	Significant Gap Reduction
Hispanic Students (Cohort)	+12.7 Percentage Points	Significant Gap Reduction
Albany State University (HBCU)	+17.6 Percentage Points	Transformative Growth

(NISS and Renick)

The testing and data gathering process used by the NISS involves a deep dive into ten years of institutional data to identify course bottlenecks and administrative barriers. By resolving these systemic issues through automated suggestions and targeted advising, institutions can reverse the impact of declining retention rates over a relatively short period (NISS and Renick).

Mental Health and Campus Well-being

Helping students with their mental health is a new and important area where artificial intelligence can make a big difference. More and more, people are realizing that

students need to be mentally healthy to do well in school. Because of this, schools are trying out AI tools to help students get the care they need, especially since there are more students than ever who need help from counselors. AI systems can look at how students are doing in school and how they are behaving to see if they are struggling before things get really bad. For example, if a student's grades are getting worse, or they are missing deadlines, the AI system can flag this as a sign that the student might need some extra help. This way, schools can step in early and provide support to students who need it, which can make a big difference in their overall well-being and success in school. Duke University is a pioneer in this field and they've created something called the "Duke Predictive Model of Adolescent Mental Health" or Duke-PMA for short. This project received a big boost from the National Institute of Mental Health, which gave them a $15 million grant. The model looks at how people behave and how they are feeling to figure out who's likely to have mental health problems. Sometimes it can even predict when someone's health is going to get worse up to a year before it happens based on stressors in the individual's life. The idea behind these tools is to work together with human therapists, so they can focus on the toughest cases. Meanwhile, AI-powered wellness coaches like Wayhaven can provide support 24 hours a day, 7 days a week, for people dealing with depression and anxiety. This way, everyone gets the help they need and therapists can concentrate on the cases that require their expertise.

AI in Instruction and Teaching Effectiveness

Most teachers and students are now using artificial intelligence in the classroom. According to Seril (2025), approximately 85% of teachers and 86% of students reported using AI tools. This is happening because people have realized that artificial intelligence can be a big help to both teachers and students. Utilizing AI is like having a special tool that makes learning and teaching better. Artificial intelligence can help with every aspect of the classroom, making it easier for students to learn and for teachers to teach. This is why so many schools are starting to use it. The idea is that artificial intelligence can work alongside teachers and students, making the whole learning process more effective.

Studies have shown that using artificial intelligence in the classroom can be extremely effective. For example, a study published in 2025 compared students who used an AI tutor with those who learned in a traditional classroom setting. The results were impressive, with the AI-tutored students performing significantly better. The difference was equivalent to between 0.73 and 1.3 standard deviations. This suggests that AI can be a powerful tool for improving student outcomes.

Students who used AI to learn were able to perform better and got their work done faster. On average, they spent 49 minutes on their tasks, which is 11 minutes less than students who didn't use AI. This new way of learning with AI has been shown to make students more interested in their schoolwork. It also helps them get better grades, with improvements of up to 54% in subjects like math, science , and social studies. The AI

system helps each student learn in their own way, which means it can find and fix any gaps in their knowledge before they become big problems.

For teachers, one of the biggest advantages of using AI is that it helps cut down on paperwork and other tasks that can become monotonous and overwhelming. On average, teachers who use AI tools can save around 6 hours every week that previously would have been spent on simple yet time-consuming tasks. Saving six hours every week is the equivalent of getting an extra six weeks off during the school year. Most of these time savings come from creating things like planning lessons, grading assignments, and creating classroom materials. This can be a huge relief for teachers and help them focus on what really matters: teaching and supporting their students.

Automated Grading Systems (AGSs) and AI-assisted evaluation tools are revolutionizing assessment by providing instant, detailed feedback that is impossible to generate at scale through manual methods (Tan et al.). AI-driven systems can evaluate complex, open-ended assignments such as essays and discussions, mimicking the grading patterns of human educators while maintaining a high degree of consistency and objectivity (“AI and Auto-Grading in Higher Education: Capabilities, Ethics, and the Evolving Role of Educators”). The following diagram shows the difference between handling tasks manually versus with AI.

Assessment Feature	**Manual Grading**	**AI-Powered Grading**

		(2026)
Feedback Speed	Days or Weeks	Instant to Minutes
Scalability	Limited by faculty count	Infinite / MOOC-compatible
Objectivity	Subject to human bias	Algorithmically consistent
Faculty Time Use	High administrative load	70% reduction in grading time

(Tan et al.)

This change lets professors break free from spending late nights grading papers and instead focus on more important things like helping students one-on-one and completing research. Some universities, like the University of Miami and Ohio State University, are already using tools like Gradescope, which uses artificial intelligence to group answers and give feedback right away, making it easier to teach big classes.

Smart Campus Infrastructure and Sustainability

The idea of a "Smart Campus" is all about using artificial intelligence to make university infrastructure work better. We are already seeing that AI is being used to control and manage buildings, keeping them running smoothly and saving money. It is important for universities to adopt the use of AI facility management, because the people in charge of

taking care of university buildings have to get creative with limited resources, especially when it comes to dealing with old buildings and trying to be more sustainable.

The primary driver of ROI in facilities management is the transition from "run-to-failure" or calendar-based maintenance to condition-based predictive maintenance (Oxmaint). AI analyzes countless data points from HVAC systems, lighting, and plumbing to identify anomalies before they result in system failures (AI in Campus Facilities Management). The cost of not being prepared is huge. When things break down, fixing them can cost three to five times more than if equipment had just been taken care of them regularly. This is because institutions have to pay extra for emergency workers and rush shipping for parts. But if artificial intelligence was used to catch problems early, it is possible for universities to save up to 75% of what would have been spent on emergency repairs. For example, a medium-sized university that spends $5.5 million on energy and $1.2 million on fixing things after they break could save a significant amount of money each year by using AI to stay on top of maintenance. The diagram below shows exactly how big of an impact AI management can create when used in a university's facilities.

Operational Pillar	**ROI Driver**	**Projected Annual Value**
Energy Cost Recovery	15–25% Reduction via BAS Optimization	$825,000
Emergency Repair	60–75% Fewer Failures	$480,000

Reduction		
Equipment Life Extension	30–40% Longer Asset Life	$840,000
Compliance Avoidance	100% Audit Readiness (OSHA/ADA/EPA)	$95,000
Space Utilization Savings	20% Improved Utilization	$280,000
Total Annual Value Created		**$2,520,000**

(Oxmaint)

Artificial intelligence can help universities in many ways beyond just saving money. For example, it can assist in reaching sustainability goals by finding buildings that are using too much energy and automatically adjusting the controls to use less. This is done by looking at how many people are in the building and what the weather is like outside. Specialized meters and sensors can also track how well the university is doing in reducing its greenhouse gas emissions, which is a goal that over 1,000 universities around the world have already committed to completing. By using these tools, universities can make progress towards not producing any net greenhouse gas emissions. Using technology to make the most of campus space is a great idea. It helps

find labs and classrooms that are not being used as much as they could be, which means schools don't have to spend money building new ones. By looking at how many people are walking around and using certain spaces, schools can figure out which areas need to be updated and which ones can be combined. This can make labs and classrooms work better, with estimated improvements of 20-35% in usage rates. Having this kind of information helps make sure the campus is a safe, friendly, and productive place for students and researchers. It's all about using data to make good decisions and create a great environment for everyone.

Governance, Ethics, and Risks of AI in Higher Education

As AI becomes the "business-critical infrastructure" of the modern university, the need for strong yet adaptable governance and ethical oversight has become paramount (“Business Reimagined: How AI Is Changing the Way We Operate”). The benefits of AI can only be fully realized if institutions maintain the trust of their students, faculty, and the public (“Perspectives on Higher Education: AI and Universities | Chris Day, Newcastle University”).

Despite the significant advantages explained and shown throughout this analysis, the adoption of artificial intelligence in the university setting is not possible without a plethora of risks and limitations. One of the largest concerns facing the adoption of AI is the issue of algorithmic bias, where AI systems trained solely on historical data may unintentionally build plans around or strengthen existing inequalities in

admissions, financial aid distribution, or student evaluation. These biases can unfairly affect certain student populations that may not be represented as well. The biases based on historical data can raise serious ethical concerns and create issues within the university.

Additionally, the “black box” nature of some of the most popular AI systems limit transparency. This makes it difficult for administrators, faculty, and students to fully grasp how decisions within the university are being made. This lack of transparency can break down trust between decision makers and students, and create challenges around accountability. These challenges would be extremely prevalent in highly important decisions such as the evaluation of academic performance and even financial aid allocation.

Another major concern within the adoption of artificial intelligence is academic integrity and an increase in cognitive dependency on AI. As students have increasingly become more reliant on AI tools for learning and problem-solving, there are many concerns that this may cause a decline in critical thinking skills among students. If students began to simply “outsource” their critical thinking skills to artificial intelligence, the main concern would shift towards if higher education is fulfilling its role of developing students into independent, and analytical thinkers.

Finally, the financial aspect of implementing AI systems into universities could create issues between universities. Universities that are wealthier would be able to invest in artificial intelligence in much larger quantities and choose much higher quality AI systems. On the other hand, smaller, less well off universities would in

turn fall much further behind. This would widen the gap in quality of education and competitiveness between different universities even more.

A significant challenge in AI adoption is the "black box" nature of complex algorithms, which can lead to concerns about transparency and fairness in automated decision-making (Laercio Cruvinel Júnior et al.). Artificial intelligence bias, where AI models reinforce existing social inequalities, poses a risk in admissions, financial aid, and assessment (Laercio Cruvinel Júnior et al.). Institutions must advocate for "explainability," ensuring that both students and educators understand how specific algorithmic decisions are reached (Deepshikha).

To reduce these risks, several universities across the country are using a plan called CRAFT to govern their AI usage. This stands for Culture, Rules, Access, Familiarity, and Trust. It's a way for universities to make sure they're doing the right thing when it comes to changing their values. One of the main things universities need to do is make sure they have clear rules about keeping student data private and secure. This means that students need to agree before their data is used to train AI models. Some universities, like Harvard and Duke, are already doing this. They've created special platforms, like the "AI Sandbox" and "DukeGPT", where they can test AI in a safe environment. This keeps the university's data safe and private. By doing this, universities can reduce the risks associated with AI and make sure they're using it responsibly.

Institutional Literacy

Making artificial intelligence work well in schools has more to do with how the school is run than the technology itself. The people in charge of Administration need to figure out how to bridge the gap between how many students and teachers are using AI and the fact that there aren't many rules in place to guide them. Currently, only about a third of school leaders say they are making real progress in using AI in a way that's both effective and responsible. Universities are taking action by introducing new leadership positions and training programs. For example, the University of North Carolina at Chapel Hill has appointed a vice provost for AI, who will be responsible for the university's AI strategy. At the same time, the UNC System has launched an AI training initiative to prepare students on all 17 campuses for a future where AI plays a critical role in the economy. The goal of these efforts is to teach students about AI literacy, which means being able to carefully evaluate and use AI tools responsibly. This will help ensure that AI is used to enhance human thinking and decision-making, rather than replace it. By doing so, AI can become a trusted tool that helps people, rather than a replacement for human critical thinking.

Workforce Readiness

From a business perspective, one of the questions that is most important is if adoption of artificial intelligence in universities would prepare students better for the evolving workforce we are now seeing. AI has become a huge part of industries such as finance, marketing, supply chain management, and consulting.

Employers are now looking for graduates that are able to interpret, evaluate, and strategically apply skills with artificial intelligence to their respective jobs.

If a university was able to adopt artificial intelligence into both administrative functions and classroom instruction, the university would position themselves in such a way that is extremely unique and advanced. Exposing students to AI learning and different AI systems that focus on predictive analytics, automated decision-making tools, and adaptive learning, will familiarize students with the technology they will encounter directly after graduation, in the workforce.

However, the effectiveness of this workforce preparation depends on how a university plans to implement artificial intelligence. If artificial intelligence is used as a shortcut for completing tasks, it would most definitely negatively affect the development of students and the advancement of faculty. In contrast, when artificial intelligence is used as a joint tool that builds the decision-making skills of students and faculty alike, it can help grow skills such as critical thinking, data interpretation, and strategic reasoning.

Therefore, the real value of artificial intelligence in higher education lies not only in operational efficiency but in its ability to produce graduates who are both technologically knowledgeable and unique in their critical thinking and decision-making skills.

Conclusion

The years 2024, 2025, and 2026 have shown us that artificial intelligence is a game-changer. It's the biggest breakthrough we've seen in a long time. This technology brings both huge opportunities and challenges to higher education. When we look at it from a business standpoint, AI is helping colleges in many ways, mainly by making decisions based on data and facts. Every department is becoming more precise and efficient because of this. For instance, AI can help with things like student admissions, course planning, and even campus management. By using data to make informed decisions, colleges can improve the overall experience for students and staff. This shift towards data-driven precision is just the beginning, and it will be interesting to see how AI continues to shape the future of higher education. The following diagram shows a summary of the different examples mentioned throughout this essay and what the impact was.

Institutional Function	**Core Benefit of AI**	**Primary Metric of Success**
Enrollment	Personalized yield management	20%+ increase in enrollment (WCSU) [11]
Student Success	Proactive retention playbooks	10+ point gain in persistence (NISS) [19]

Operations	Smart campus optimization	$2.5M+ in annual value creation
Academics	Automated grading & tutoring	5.9 hours/week saved per teacher
Research	Accelerated discovery pipelines	Enhanced interdisciplinary collaboration

(Seril) (Gilberto) (Oxmaint) (NISS and Renick) (Liaison, “Rewriting the Rules of Enrollment with AI and Predictive Analytics”)

The main goal of bringing AI into education is not to get rid of the human touch, but to make it stronger. By taking care of routine tasks and giving us a heads-up on what is coming, AI lets teachers and staff focus on the important stuff that only humans can do, like making tough decisions, leading, and mentoring. Schools that invest in both the technology and the rules to make sure it's used fairly will be the ones that stand out in the next ten years. This will help keep American higher education a powerful tool for moving up the economic ladder and driving innovation nationwide.

Works Cited

"5 Ways Campus Facilities Managers Should Use Artificial Intelligence in 2026 | UG2." *UG2 Facility Services*, 2 Mar. 2026, ug2.com/5-ways-campus-facilities-managers-should-use-ai/. Accessed 13 Mar. 2026.

"2026 Higher Education Trends." *Deloitte Insights*, Deloitte, 24 Feb. 2026, www.deloitte.com/us/en/insights/industry/articles-on-higher-education/2026-higher-education-trends.html.

"AI and Auto-Grading in Higher Education: Capabilities, Ethics, and the Evolving Role of Educators." *Osu.edu*, 2025, ascode.osu.edu/news/ai-and-auto-grading-higher-education-capabilities-ethics-and-evolving-role-educators.

"AI at Duke - AI at Duke." *AI at Duke*, 28 May 2025, ai.duke.edu/.

"AI Sandbox." *Harvard.edu*, 2023, www.huit.harvard.edu/ai-sandbox.

"Artificial Intelligence." *NC Teaching & Learning Hubs Archived Professional Development*, 2026, tlhubs.ced.ncsu.edu/artificial-intelligence/. Accessed 13 Mar. 2026.

"Artificial Intelligence | College of Education News." *College of Education News*, 2 Dec. 2025, ced.ncsu.edu/news/tag/artificial-intelligence/. Accessed 13 Mar. 2026.

Bombalier, Janelle. "The Competitive Advantage of Using AI in Business." *Business.fiu.edu*, Florida International University, 2024, business.fiu.edu/academics/graduate/insights/posts/competitive-advantage-of-using-ai-in-business.html.

"Business Reimagined: How AI Is Changing the Way We Operate." *Mitch Daniels School of Business*, July 2025, business.purdue.edu/daniels-insights/posts/2025/business-reimagined-how-ai-is-changing-the-way-we-operate.php.

Deepshikha, Deepshikha. "A Systematic Review on the Future of Educational Assessment: AI-Driven Grading and Personalised Feedback in Higher Education." *Artificial Intelligence in Education*, 21 Nov. 2025, pp. 1–41, https://doi.org/10.1108/aiie-03-2025-0036. Accessed 30 Nov. 2025.

Gabelaia, Ioseb, and Jacques Hendieh. "The Transformative Power of AI and Its Impact on Business Strategy, Financial Operations, and Marketing Decision-Making: A Case Study Method." *International Journal of Innovation Science*, 24 Nov. 2025, pp. 1–21, https://doi.org/10.1108/ijis-02-2025-0051. Accessed 26 Nov. 2025.

Gilberto. "Artificial Intelligence Ethics Concern Philosopher | UNC-Chapel Hill." *The University of North Carolina at Chapel Hill*, 10 Mar. 2026, www.unc.edu/posts/2026/03/10/artificial-intelligence-ethics-concern-philosopher/. Accessed 13 Mar. 2026.

---. "Research Is at the Heart of Carolina's AI Work | UNC-Chapel Hill." *The University of North Carolina at Chapel Hill*, 5 Mar. 2026, www.unc.edu/posts/2026/03/05/research-is-at-the-heart-of-carolinas-ai-work/. Accessed 13 Mar. 2026.

Guest Authors. "AI in Campus Facilities Management: Benefits for Safety, Sustainability, and Operations." *Campus Safety Magazine*, 17 Sept. 2025,

www.campussafetymagazine.com/insights/ai-in-campus-facilities-management-benefits-for-safety-sustainability-and-operations/173283/.

Laercio Cruvinel Júnior, et al. “AI Ethics in Higher Education: A Review of Ethical Challenges.” *Lecture Notes in Computer Science*, 5 Sept. 2025, pp. 192–203, https://doi.org/10.1007/978-3-032-01429-0_17. Accessed 25 Sept. 2025.

Leveraging Data and AI to Boost Enrollment and Retention CASE STUDY.

Liaison. “Rewriting the Rules of Enrollment with AI and Predictive Analytics.” *Liaison*, My Liaison, 9 Sept. 2025, www.liaisonedu.com/resources/blog/rewriting-the-rules-of-enrollment-with-ai-and-predictive-analytics/. Accessed 13 Mar. 2026.

---. “Strategic Yield Management in Higher Education: How AI Is Transforming Enrollment, Retention, and Financial Aid.” *Liaison*, My Liaison, 5 Feb. 2026, www.liaisonedu.com/resources/blog/strategic-yield-management-in-higher-education-how-ai-is-transforming-enrollment-retention-and-financial-aid/.

Llerena-Izquierdo, Joe, and Raquel Ayala-Carabajo. “Ethics of the Use of Artificial Intelligence in Academia and Research: The Most Relevant Approaches, Challenges and Topics.” *Informatics*, vol. 12, no. 4, 13 Oct. 2025, pp. 111–111, https://doi.org/10.3390/informatics12040111.

Machucho, Ruben, and David Ortiz. “The Impacts of Artificial Intelligence on Business Innovation: A Comprehensive Review of Applications, Organizational Challenges, and Ethical Considerations.” *Systems*, vol. 13, no. 4, 8 Apr. 2025, p. 264, www.mdpi.com/2079-8954/13/4/264, https://doi.org/10.3390/systems13040264.

McCormack, Joshua. “Jeffrey Bardzell Begins as Vice Provost for AI, Diane Kelly Named SILS Interim Dean | UNC-Chapel Hill.” *The University of North Carolina at Chapel Hill*, 18 Nov. 2025, www.unc.edu/posts/2025/11/18/jeffrey-bardzell-begins-as-vice-provost-for-ai-diane-kelly-named-sils-interim-dean/. Accessed 13 Mar. 2026.

“New Possibilities: College Campuses Leverage Artificial Intelligence for Mental Health Support - Heartland Forward.” *Heartland Forward*, 2025, heartlandforward.org/pulse/new-possibilities-college-campuses-leverage-artificial-intelligence-for-mental-health-support/.

NISS, and Tim Renick. *Impact Report*.

Office. “Duke University.” *Office of Information Technology*, 2025, oit.duke.edu/ai-suite/. Accessed 13 Mar. 2026.

Oppong, Michael. *Leveraging Predictive Analytics to Enhance Student Retention: A Case Study of Georgia State University*. 10 Oct. 2024, www.researchgate.net/publication/390878595.

Oxmaint. “How AI Is Transforming Smart Campuses in 2026.” *OXMaint*, Oxmaint, 27 Feb. 2026, oxmaint.com/industries/education/ai-transforming-smart-campuses-2026. Accessed 13 Mar. 2026.

“Perspectives on Higher Education: AI and Universities | Chris Day, Newcastle University.” *Www.elsevier.com*, Elsevier, 2024, www.elsevier.com/academic-and-government/developing-ai-leadership-in-higher-education.

"Predictive Analytics in Education: Boosting Student Success and Retention | Kaltura." *Kaltura*, 11 Feb. 2026, corp.kaltura.com/blog/predictive-analytics-in-education-boosting-student-success-and-fetention/. Accessed 13 Mar. 2026.

research, Leah Zitter Leah Zitter is a technical writer who covers high tech She holds a Ph D. in psychology, et al. "How Universities Are Using Analytics and AI to Curb Enrollment Drops." *Technology Solutions That Drive Education*, edtechmagazine.com/higher/article/2021/05/how-universities-are-using-analytics-and-ai-curb-enrollment-drops.

Reyes-Portillo, Jazmin A, et al. "Generative AI–Powered Mental Wellness Chatbot for College Student Mental Wellness: Open Trial." *JMIR Formative Research*, vol. 9, 28 July 2025, pp. e71923–e71923, https://doi.org/10.2196/71923.

Sakr, Eyman. "@ NC State: Still No AI Policy?" *The Nubian Message*, 2025, thenubianmessage.com/16016/news/nc-state-still-no-ai-policy/.

Seril, Lindsey. "20 Statistics on AI in Education to Guide Your Learning Strategy in 2025." *Engageli.com*, Engageli, Inc., 15 July 2025, www.engageli.com/blog/ai-in-education-statistics.

Tan, Le Ying, et al. "A Comprehensive Review on Automated Grading Systems in STEM Using AI Techniques." *Mathematics*, vol. 13, no. 17, 2 Sept. 2025, pp. 2828–2828, www.mdpi.com/2227-7390/13/17/2828?utm_source, https://doi.org/10.3390/math13172828.

"The Future of AI Powered Grading: How Professors Can Save Time & Enhance Student Feedback in 2025." *Creatrixcampus.com*, 2025, www.creatrixcampus.com/blog/future-ai-powered-grading-2025.

"The Impact of AI on Work in Higher Education." *EDUCAUSE*, 2026, www.educause.edu/research/2026/the-impact-of-ai-on-work-in-higher-education .

"The Path to Student Success 2.0: Supporting and Expanding Undergraduate Student Success - Office of the Provost." *Office of the Provost*, 27 Jan. 2025, provost.gsu.edu/2025/01/27/undergraduate-enrollment-student-success-2-0/.

Thomas, Allison. "Everything You Need to Know about AI for Facilities Management." *Facilities Dive*, 2 Mar. 2026, www.facilitiesdive.com/spons/everything-you-need-to-know-about-ai-for-facilities-management/812921/. Accessed 13 Mar. 2026.

Tsai, KellyAnn. "Surveying the AI Landscape: Emerging Patterns in Higher Education Research – Digital Promise." *Digital Promise*, 31 July 2025, digitalpromise.org/2025/07/31/surveying-the-ai-landscape-emerging-patterns-in-higher-education-research/.

Uday Kumar Madarapu. "AI Chatbot Case Study: Enhancing Conversions, Traffic, and Student Success at an Online University." *Medium*, Predict, 7 Sept. 2025, medium.com/predict/ai-chatbot-case-study-boosting-conversions-success-6711d1195ecd. Accessed 13 Mar. 2026.

Younas, Muhammad, et al. "The Impact of Artificial Intelligence-Based Learning Tools in Academic Innovation: A Review of Deep Seek, GPT, and Gemini (2020–2025)."

Frontiers in Education, vol. 10, 17 Nov. 2025,

https://doi.org/10.3389/feduc.2025.1689205.