

AI Strategy Summit





State of AI in Higher Education



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A Growing List of Investments in AI



Institutions Large and Small Are Betting on AI's Future

Headline Initiatives Proliferate—with Eye-Watering Price Tags



\$1B

total investment in AI initiative to include 90 new staff, seven-storey building, and new school



£225M

awarded to University of Bristol by UK government for new AI supercomputer



CAIO

Western University among institutions hiring AI strategist at the senior management level

...But Even Small Institutions Are Cashing In



Gateway and Microsoft partner to train 1000+ employees for new AIfocused datacenter



Morehouse announces plans to begin using AI teaching assistants in 2024-25 academic year



Montclair State hires full-time instructor in applied artificial intelligence

Source: Susan D'Agostino, "Colleges Race to Hire and Build Amid Al. 'Sold Rush," Inside Higher Ed, May 19, 2023; Hewlett Packard Enterprise Newsroom, "UK Government invests £225m to create UK's most powerful AI supercomputer with University of Bristol and Hewlett Packard Enterprise," November 1, 2023; Keri Ferguson, "Western appoints Mark Daley as first-ever chief AI officer," Western News, September 27, 2023; WGTD 91.1 FM, "Microsoft Partnerships with Gateway, UW-M, Detailed," June 2, 2024; The Journal of Blacks in Higher Education, "AI Teaching Assistants Are Coming to Morehouse College," July 12, 2024; Chronicle of Higher Education Jobs, "Assistant or Associate Professor of Applied Artificial Intelligence," July 26, 2024; EAB Interviews and analysis.

Not Everything is GenAI...



Artificial Intelligence (AI):

Machines that can reason and solve problems in human-like ways, mimicking capabilities such as communication and pattern recognition

Generative AI (GenAI):

AI that can predict or "generate" the next word, pixel, etc. in a sequence, creating the capacity to "make" new content

AI Was Already in Our Everyday Lives Before ChatGPT...



Siri uses natural language processing (NLP) and deep learning to understand and respond to voice commands



Waze uses AI to analyze real-time traffic data and optimise route recommendations

Uber

Uber uses machine learning, deep learning, and NLP in both internal and external functions

Machine learning powers **TikTok** algorithm, personalizing content feeds based on user interactions

...But New AI Tools Unlock Human-Like Outputs



AudioCraft (Meta) Type: Audio



GitHub Copilot (Microsoft) *Type: Code*



Runway ML *Type: Video Creator and Editor*



Midjourney *Type: Images*



ChatGPT (OpenAI) *Type: Text* By Jan '23, ChatGPT <u>reached 100M users</u> in just two months, the fastest-growing app in history (at the time)

Service	Best Model	Live Mode	"Reasoning"	Web Access	Generates Images	Deep Research	Executes Code	Data Analysis	Sees images	Sees video	Reads Docs	Personality	Superpower
OpenAl ChatGPT	GPT-40	√ Full multimodal	×	√	✓ DALL-E3	\checkmark	1	1	1	In Live Mode	\checkmark	Polished and efficient in text. In live mode, expressive and adaptive.	Live mode, most versatile set of features and capabilities
	o1/o3 family	×	\checkmark	×	×	V	V	×	1	×	×	Methodical and analytical	Very powerful model for complex reasoning tasks, particularly in science, coding, and mathematics
Vicrosoft Copilot	"Copilot"	Voice only	1	√	✓ DALL-E3	×	Limited	×	1	×	\checkmark	Since it uses different models behind the scenes, a little inconsistent	Works well with Microsoft products and services
Anthropic Claude	Claude 3.5	×	×	×	×	×	\checkmark	Limited	~	×	\checkmark	Clever and friendly	Often the most creative and socially engaging model
Google Gemini	Gemini family	Voice only	\checkmark	~	√Imogen- 3	\checkmark	Limited	Limited	~	\checkmark	\checkmark	Helpful and a bit bland	Wide variety of features, good connections with search
X.ai Grok	Grok-2	×	×	√ Mostly X	√ Aurora	×	×	×	1	×	\checkmark	Sarcastic and "fun" (though you can tone that down)	Powerful model integrated tightly with X
DeepSeek	DeepSeek v3	×	\checkmark	\checkmark	×	X	×	×	~	×	Limited	Neurotically helpful, warm	Remarkably cheap and powerful model out of China

Have We Reached the Peak of Inflated Expectations?

Waiting Out the Hype Cycle Protects Against Premature Investments



Overheard In Our 100+ Research Interviews on GenAI

"It will be a year until we see the skills that are actually integral for GenAI."

"We had a lot of momentum out the gate. We created new policies and encouraged staff to experiment. But I'm not sure where my institution is going next."

"We are all kind of waiting until some of it gets figured out and then we will decide what to do."

You Haven't Missed the Boat on AI



GenAI Brings New Hype Cycle with Each Update to Technology



Generative AI Already A Staple for the Sector

And We Are Only Getting Started...

While Students and Staff Embrace AI Tools...

86% Of students use AI to

Of students use AI to augment learning and studying

69%

Of HE staff reported using generative AI at least once in the past year

80%

Of institutions are not fully meeting students' AI integration expectations¹

 Includes integrating AI tools into teaching and learning, student and faculty training, course topics, or other areas.
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... HE is Still in Phase 1 of AI Adoption

Arizona State University, AI Maturity Model, April 2024



Source: ASU + GSV Summit, Is Your Strategy AI-Ready? Tips from ASU on Preparing for a New Normal, 2024; Digital Education Council, "Digital Education Council Global AI Student Survey 2024," August 2, 2024; EAB, Higher Ed Success Staff Survey, 2024; EAB interviews and analysis.

Signals from Students and Employers



81%

of the Class of 2027 say their institution should be preparing them with AI skills

....and Employers Increasingly Signal They're All AI Jobs

2 in 3

business leaders say they wouldn't hire someone without AI skills

55%

of 2024 graduates say their institutions **did not** prepare them to use AI tools in the workforce

1,130%

growth in job postings listing GenAI skills, November 2022-June 2024

Source: Colleen Flaherty, "Survey: How AI Is Impacting Students' Career Choices," Inside Higher Ed, January 10, 2024; Cengage Group, 2024 Graduate Employability Report, July 2024; Microsoft and LinkedIn, 2024 Work Trend Index Annual Report, May 8, 2024; EAB interviews and analysis.

Undeniable Job Growth



10

Skyrocketing Demand for Generative AI Skills

Quarterly Growth of Job Postings Containing Generative AI Terms, October 2022 – September 2024



Monumental Growth for GenAI Skills Compared to Past High-Growth Fields *Growth in Monthly Relevant Job Postings as Field Interest Peaked*

GenAI, 2024 644%

Oct 2022 – Sept 2024

Fintech, 2022 104%

Jun 2020 – Apr 2022

Smart Manufacturing, 2021

25%

Oct 2019 – Sept 2021

Teaching AI Not Just for Tech Fields



95% of AI Workers Will Not Need Technical Training or Expertise

Skills Needed	Implications for Academic Programmes
 Large language model design: building new GenAI models API manipulation: the use of application programme interfaces for AI models interact with one another 	Training already exists in Computer Science department
 Model fine-tuning ability: Able to select and adjust the right models for the company Cross-team collaboration: Oversee integration into workstreams and employee training 	Option to provide additional coursework for students who want to become AI leaders in their field
 AI Literacy: Understanding GenAI's abilities and limitations as the technology evolves Emotional Intelligence: Human-to-human interaction to complement GenAI 	Ensure all students have these skills; opportunity to provide training for field-specific uses
	 Skills Needed Large language model design: building new GenAI models API manipulation: the use of application programme interfaces for AI models interact with one another Model fine-tuning ability: Able to select and adjust the right models for the company. Gross-team collaboration: Oversee integration into workstreams and employee training AI Literacy: Understanding GenAI's abilities and limitations as the technology evolves. Emotional Intelligence: Human-to- human interaction to complement GenAI

AI Isn't Coming for (Most) Graduates' Jobs

Few Jobs Untouched by AI, but Most Augmented Rather than Replaced

Automation: when GenAI can perform a task Augmentation: when GenAI works in completely without human intervention **Tasks Likely to Be Augmented** Tasks Likely to Be Automated Healthcare Admin Data Scientist Data Scientist Healthcare Admin Data decision Patient care • Data entry and Appointment • making coordination checking schedulina Basic coding tasks Results analysis • ٠ Billing and coding • ٠



conjunction with humans to amplify human skills

Regulatory compliance

12

Acknowledging Academic Staff's Resistance to AI

Many Instructors Not Yet Willing to Integrate GenAI Into Their Teaching

Many Staff Simply Refuse to Allow AI in Their Classroom

42%

of instructors **prohibit** their students from using generative AI in their classroom



Source: Ruediger, Blankstein, and Love, "<u>Generative AI and Postsecondary Instructional Practices</u>," *Ithaka 5+R*, 2024; *Chronicle of Higher Education*, "How Generative AI is Changing the Classroom," 2024; Szelenyi, Balazs, "Adopt or Avoid: Faculty Dilemmas and Decisions on Generative AI in Teaching and Research," Northeastern University, 2024; EAB interviews and analysis.

A Classic Academic Conundrum



Can We Create the Right Conditions for Experimentation?

Leaders Create the Conditions for Change

- Set high-level vision and strategy
- Provide necessary
 information and resources
- Carve out time for staff to prioritise innovation



Academics Own Curricula and Pedagogy

- Understand AI impacts on teaching and research
- Determine best approach for each discipline
- Embed AI literacy in curriculum at large

27

Academics Waiting for Leaders to Model Best Practice AI Use

"Our staff won't use AI unless they feel like someone has given them permission, not literally but conceptually. It's on me as the provost to model the use I want to see."

Provost

Risks Not An Excuse to Wait and See



Instead, Start Experimenting to Understand and Mitigate Risks

Privacy	Security	Hallucination	Bias	Academic Integrity				
"AI could expose personal data of our students and staff."	"What if AI gets access to confidential data or our intellectual property?"	"AI sometimes makes up things and provides false answers."	"AI tools can contain and amplify existing biases."	"Students are going to use AI to cheat."				
Mitigation Strategies								
 Educate users on safe data handling Deploy enterprise AI tools (e.g., <u>TritonGPT</u>) 	 Negotiate vendor agreements Follow NIST¹ frameworks 	 Tailor AI for specific uses (e.g., RAG²) Implement input/output guardrails 	 Raise user awareness Narrow scope of AI tools Monitor and audit regularly 	 Design AI- integrated assignments Structure student AI interactions 				

1) National Institute of Standards and Technology.

2) Retrieval-Augmented Generation.

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Discussion: Resistance to AI on Campus

Turn to the person next to you and discuss for 5 minutes:

- What are the major concerns academics have on the use of AI?
- What are the major concerns **professional services staff** have on the use of AI?

A Comprehensive Vision of GenAI Investment

Key Elements of the University of Florida's **AI Initiative**

Top-Down Approach to AI

UF President and Provost strongly encouraged and incentivised incorporation of AI across all 16 colleges

AI-Specific Academic Staff Hired

UF hired 100 new staff with AI backgrounds or experience across disciplines, with each faculty receiving at least one new hire

AI Modules Across All Disciplines

230 AI modules offered at undergraduate, postgraduate, and professional levels, and range from introductory to course-specific

AI Pathways Career Coach

Career center staff educate students on the use of AI in the job recruitment process

Module Offerings

AI in Agriculture and Life Sciences

UF Artificial Intelligence UNIVERSITY of FLORIDA

17

- Business Applications of \checkmark Artificial Intelligence
 - AI in Healthcare and Public Health

Research Applications





Building Equitable Workplaces with AI Technologies

AI Platform Predicts Surgical Complications







AI Can Do Almost Anything...



...But Higher Education Cannot Enable Everything

Institutional Aspirations



Campus Realities

Student Experience

"Why can't our students have a 24/7 AI assistant that can be their guide from enrolment to graduation and beyond?"

Cost Optimisation

"We need to drastically reduce costs, and [insert vendor AI solution] could make our staff much more productive."

Vendor licenses are costprohibitive, e.g., a M365¹ Copilot license costs £30 per person per month

Institutional data is not clean enough

to train a student-interfacing chatbot

Access and Innovation

"Our campus has great ideas-we should be translating all of these ideas into working solutions."



There's a limit to how many experiments campus can scale **due to IT capacity** (e.g., skillsets, infrastructure)

Increase Competitiveness

I.e., Grow Revenue

Long-Term Vision: Building an AI University

Academics embrace AI and incorporate it into curriculum and research applications; prospective students seek out the institution as desired destination to prepare for an AI future.

More Immediate Vision: Enhancing Staff (and Student) AI Literacy

Enable small-scale experimentation with AI as pedagogical tool as well as force transforming curriculum.

Engaging Academics with AI

Increase Financial Sustainability I.e., Reduce Costs

Long-Term Vision: Scaled Productivity Gains

Deploy AI applications across the enterprise at a scale that eliminates low-value activities, enables a greater output of work, and ultimately reduces operating costs.

More Immediate Vision: Individual or Team-Based Productivity Gains

Pinpoint areas where AI enables greater individual or team efficiency, laying groundwork for wider adoption.

Boosting Administrative Efficiency with AI



Engaging Academics with AI





20

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Students and Professors Believe AI Will Aid Cheating

EL PAÍS

Ethan Mollick, analyst: 'Students who use AI as a crutch don't learn anything'



Al cheating is hopelessly, irreparably corrupting higher education

Nearly half of [polled students] said **it is easier to cheat than it was last year due to the increased use of generative AI**, with 35 percent pointing toward ChatGPT specifically as a reason.



AI does so many things that we need to set guardrails on what we don't want to give up...We did a very bad job with the last major social adjustment, social media. **This time we need to be more deliberate.**



Source: Inside Higher Ed, "Students and Professors Believe AI Will Aid Cheating," July 2024; El Pais, "Ethan Mollick, analyst: Students who use AI as a crutch don't learn anything," October 2024; The Hill, "AI cheating is hopelessly, irreparably corrupting US higher education," August 2023; EAB interviews and analysis.

It's Not All Bad News



Despite Concerns, AI Enables Research Progress Across Multiple Fields

Deciphering an Ancient Scroll

Student-developed AI programme deciphers a dozen new characters from 2,000-year-old Roman scroll

Screening for Early Speech Challenges

AI Screener system helps therapists analyze children's speech patterns in real time and identify potential speech disorders

Studying Antibiotic Resistance

Researchers use AI-driven Alpha Fold system to predict protein structures and develop new antibiotics

Predicting Maize Yields

Researchers use AI model to analyze remote sensor data to predict maize crop yields

Students, Employers Unable to Define AI Skills

Students Looking for Guidance on AI Literacy

31%

of undergraduates **don't know or are unsure** when or how to use GenAI to help with coursework

72%

of students want their institutions to provide more training on **AI literacy**

41% of students are currently just using AI tools for fun (vs. learning or skill development)

Language in GenAI Job Postings Remains Vague

71%

of relevant job postings in the past year did not include any other AI keywords beyond "generative AI" or "ChatGPT"

We're seeking a visionary AI Product Marketing Leader to disrupt marketing and transform customer experiences **through cutting-edge AI**

As a Senior UX/UI designer you will be responsible for designing solutions that responsibly **incorporate generative AI into user experiences** and address the goals of our business

Ability to leverage ChatGPT and other AI tools.

Technology enthusiast who is proficient in Microsoft Office Suite and has working knowledge of **generative AI** tools such as ChatGPT

Source: Ashley Mowreader, "Survey: When Should College Students Use AI? They're Not Sure," Inside Higher Ed, September 16, 2024; Rhea Kelly, "Survey: 86% of Students Already Use AI in Their Studies," Campus Technology, August 28, 2024; Lauren Coffey, "College-Bound Students Concerned About AI Skills," Inside Higher Ed, May 6, 2024; EAB Interviews and analysis.

Change Can Happen at Every Level

Institutional Exemplars Show Range of End-State Visions for AI Curriculum

UNIVERSITY OF

AI Module

USF developed a Zoom orientation session on ChatGPT for incoming students, focused on pros, cons, and ethics of using AI for schoolwork Carnegie Mellon University

AI Course

Bachelor of Science in AI combines courses in math and statistics, computer science, artificial intelligence and ethics



AI University

230 AI modules UG, PG, and professional levels, and range from introductory to discipline-specific 24

Scale of AI Integration into Curricula

Source: Johanna Alonso, "Now on the Orientation Schedule: Free Speech and ChatGPT," Inside Higher Ed, August 25, 2023; "B.S. in Artificial Intelligence," Carnegie Mellon University; "Building an AI University," University of Florida; EAB interviews and analysis.

A Different Story in Each Discipline



Academics Must Determine Whether Curricula, Pedagogy Must Evolve



Discussion

Find a partner at your table. Discuss the following questions for 5 minutes.

- How is your institution implementing AI into the curriculum?
- Does it make a difference what content is being taught?
- What are the biggest barriers to integration?

Compare notes with the rest of your table. The person with the birthday closest to today can provide a brief overview of the most important results of your discussions.

Engaging Academic Staff with AI

Overcoming Four Barriers to Adoption



27

AI Literacy, As Defined by EAB

Six Questions All Staff and Students Should Be Able to Answer



 Why is AI said to be biased? Why can't these biases be eliminated?

Source: EAB interviews and analysis.

· What types of information or data should I avoid sharing with AI tools?

Can I detect AI work?

Students and staff need to understand that AI detection tools are unreliable and often claim genuine student work is AI-generated.

How do I prompt AI?

While prompt engineering is progressively less important as AI tools improve, students and staff should still know how to change their prompts to get the outputs they want from AI tools.

Practice #1: AI Literacy Training

The AI Crash Course for Academics



Training Builds AI Literacy, Helps Staff Answer EAB's Six Questions

Many Visions for What It Looks Like in Practice

Select Examples of AI Literacy Training, from Least to Most Tailoring—and Startup Cost—Involved

COURSERC Out-of-the-Box Generalist Trainings

Google Grow With Google offers 10-hour, self-paced <u>AI</u> <u>Essentials</u> course on AI fundamentals, prompting, responsible use (\$49/person)



Shared Training for Everyone on Campus

Vanderbilt offers free, extensive AI training (including workshops and online courses) for students and staff



Teaching-Specific Instruction

Auburn's free, self-paced, interactive <u>Teaching</u> with <u>AI course</u> consists of 8 modules which take ~10 to 25 hours to complete; participants receive a badge



Targeted Opportunities for Most-Impacted Disciplines

U of Mississippi hosts paid (\$1k stipend), twoday <u>AI Summer Institute</u> for writing instructors

What All Good AI Literacy Training Has in Common

- ✓ Ensures staff understand what AI and LLMs are...and what they're not
- ✓ Covers risks and biases behind using AI, and why engaging with AI is key to understanding these pitfalls
- ✓ Offers interactive, hands-on opportunities to use AI tools

Source: Biggio Center, "<u>Teaching with AI @ Auburn</u>," *Auburn University*, 2023; Vanderbilt University, "Vanderbilt launches free online ChatGPT course, shaping the future of AI education," Vanderbilt University Research News, May 24, 2023; "<u>Google AI Essentials</u>," Grow with Google; EAB interviews and analysis.

Extend Your Reach to All Staff

UTSA Ambassadors Network Breaks Down Barriers to Departments



UTSA's Ambassadors

One staff member per academic department

Nominated by chairs and deans based on leadership, comfort with innovation

Offer peer mentorship

Lead pilot programmemes

Jan Innovation

Regular Meetings with Innovation Staff

Ambassadors and staff come together frequently as community of practice

Innovation Staff Coordinate Materials

How Ambassadors Bring AI to Peers

Compile news, pilot data, case studies, and resources on AI teaching

Ambassadors Attend Dept. Meetings

30

Share AI resources, best practices

Bring staff questions back to Academic Innovation team



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Navigating Without a Compass



Students, Staff Hesitant to Approach AI Due to Unclear Policy

Only a Small Minority of Students Has Clarity on AI Policy

16% of undergraduates said they knew when to use the knew when to use AI because their institution had published a policy

Majority of Institutions Not Providing Actionable Guidance for Students

20% of **provosts** said their institutions had an AI policy

19% of **presidents** said their institutions had an AI policy

Staff Also Seek More AT Clarity

We brought an AI module to the curriculum committee last year, and they questioned how we could possibly create a module without first having a policy.

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The Right Approach—at Every Level



32

Don't Keep Them Guessing







Support AI Literacy Development



Push for Staff = AI Literacy



Insist on Teaching Adaptation



Champion Academic Integrity



Commit to Ongoing Leadership

RUSSELL Principles on the Use of GenAI Tools in Education

Universities will support students and staff to become AI-literate.

Staff should be equipped to support students to use generative AI tools effectively and appropriately in their learning experience.



Universities will adapt teaching and assessment to incorporate the ethical use of generative AI and support equal access.



Universities will ensure academic rigour and integrity is upheld.



Universities will work collaboratively to share best practice as the technology and its application in education evolves. Practice #4: AI Teaching Guidelines

Spell Out Instructors' Roles

McMaster's Guidelines Provide Detailed Instruction on Responsible AI Use



What Else Makes McMaster's Guidelines Different?



Accessibility

Easy-to-use page featuring concise, simple language



Leadership Backing

Provost highlights in newsletter and on website



Toolkit

Implementation resources linked from guidelines

34

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Source: McMaster University, "Guidelines on the Use of Generative AI in Teaching and Learning," August 2024; EAB interviews and analysis.

Empower Staff to Customise Their Approach

Leadership Mandate, Canvas LMS Shortcut Ensure Clear Course-Level Guidance



Source: Metropolitan State University of Denver, Denver, CO; Perkins et al., "The <u>Artificial Intelligence</u> Assessment Scale (AIAS): A Framework for Ethical Integration of Generative AI in Educational Assessment," Journal of University Learning and Teaching Practice, April 30, 2024; FAB interviews and analysis.

35

Discussion

Find a new partner at your table. Discuss the following questions for 5 minutes.

- Where do you fall on this spectrum of AI use in the classroom?
- What do you think are the most significant challenges regarding AI use in the classroom?
- How does AI use in the classroom impact operational roles or positions?

Compare notes with the rest of your table. The person who has been at their institution the longest can provide a brief overview of the most important results of your discussions.
AI and Cheating Synonymous for Some Staff



Increasing AI Understanding Requires Rewiring Mental Associations

For Some Staff, AI Still an Unknown Quantity

40%

of academics surveyed by Ithaka S+R disagree at least somewhat with "I understand the teaching applications of generative AI."

For Many More, AI Known but Only as an Antagonist

75% of academics surveyed by Harvard believe AI will have a **negative impact on teaching** in next five years

Representative Responses to Northeastern University's Survey on AI, 2024

"What additional support would enhance your integration of AI in teaching and research?"

"Requiring students to turn in assignments through an **AI checker** as well as a plagiarism checker."

"I only want to use it in the context of **detecting AI**-written student papers."

"The university should provide tools to staff for free to **detect the use of ChatGPT** in students' homework."

"Support deep learning rather than defending deep faking. Provide **AI detection tools**."

"Students have been using ChatGPT to **cheat**. This has been a major problem."

"Ban it."

Source: Ruediger, Blankstein, and Love, "<u>Generative AI and Postsecondary Instructional Practices</u>," *Ithaka 5+R*, 2024; *Chronicle of Higher Education*, "How Generative AI is Changing the Classroom," 2024; Szelenyi, Balazs, "Adopt or Avoid: Faculty Dilemmas and Decisions on Generative AI in Teaching and Research," Northeastern University, 2024; EAB interviews and analysis.

Addressing Unethical Use

How Good is AI Detection, Really?

Did the Founding Fathers Have AI in 1776... Or Is AI Detection Faulty?

6				
+ New	In August 2024, after four long years of advocates	, students and su Date: January 08, 2025	e ran the most opular portion of	
Home	The unanimous Declaration of the thirteen united St people to dissolve the political bands which have co and equal station to which the Laws of Nature and o they should declare the causes which impel them to We hold these truths to be self-evident, that all men Rights, that among these are Life, Liberty and the pu	I States of America, When in the Course of human events, it becomes necessary for one a connected them with another, and to assume among the powers of the earth, the separate the of Nature's God entitle them, a decent respect to the opinions of markind requires that in to the separation.] men are created equal, that they are endowed by their Creator with certain unalienable e pursuit of Happiness.		
Ana 48% was	lysis suggests 6 likelihood text 6 written by AI	Probability breakdown The probability this text has been entirely written by a human, Al or a mix of the two. 52% Human 0% Mixed 48% Al	Basic scan Advanced scan Plagiarism scan Writing feedback	
		How were these results?	AE Al Vocabulary	
	Try it yourself!	Write with GPTZero Al Tutor BETA	Search Sources	

Addressing Unethical Use

Flying Under the Radar



Not All AI Academic Dishonesty Includes Text Generated by AI Tools

Writing Process for a Modern Student Using ChatGPT

Developing	Outlining	Finishing	Final Product
Claim	Thoughts	Touches	
Student uses ChatGPT to instantly generate five potential claims to center their paper around. They choose one of these claims to be their thesis	Student uses ChatGPT to generate five- paragraph structure based on their thesis; including supporting claims, evidence, and conclusions	Student fleshes out argument structure, connecting ideas together to ensure the paper flows in their own voice	Finished essay consists entirely of the student's original writing but contains none of their original thoughts

"There's a remarkable disconnect between how professors and administrators think students use generative AI on written work and how we actually use it...it's very easy to use AI to do the **lion's share of the thinking** while still submitting work that **looks like your own**."

Owen Kichizo Terry, Undergraduate

Ask, Don't Accuse

Academic Misconduct Conversation Guide Eliminates Need for AI Detectors

Question Guide for Suspected Misconduct

- 1. Can you please tell me what your assignment is about? What is the main topic? What did you argue, discuss, or highlight? What was the focus of the assignment?
- 2. What was your favourite part of the assignment? What were some of the challenging parts of the assignment?
- 3. Tell me about your process for writing this assignment: did you complete it in stages? What kind of timeline?
- 4. If there is a reoccurring term or phrase, ask the student to explain what it means.
- Provide the student with their reference list; select a source and ask why they chose that source. (If applicable)
- 6. Did you make use of technological tools in writing this assignment? (e.g. ChatGPT, Google Bard, Bing)
- □ Student <u>cannot</u> answer or demonstrates <u>limited</u> knowledge of most questions → **contact Academic Misconduct Office**
- □ Student <u>can</u> answer or demonstrates <u>excellent</u> knowledge of most questions → *likely the student's* original work



Benefits of McMaster's Approach



Used in lieu of (often faulty) AI detectors



Emphasises human role in a post-AI world



Avoids bias via standard question set

An AI Solution to an AI Problem



McMaster Tool Automates Design of AI-Enabled (or AI-Proof) Assignments



Your GenAI Integration Cheat Sheets

Libraries of Ready-Made AI Assignments



AI Pedagogy Project Assignments

(MetaLAB (at) Harvard): Growing collection of AI assignments from instructors around the world



AI Assignment Library

(University of North Dakota): Collection of AI assignments built by

expert UND staff



TextGenEd

(WAC¹ Clearinghouse): Peer-reviewed library of assignments designed to promote AI literacy

ChatGPT Assignments to Use in Your Classroom Today

(University of Central Florida):

Book of 60 practical uses for AI in learning, with pre-written prompts to assist with each use case

Resources for Designing "AI-Resistant" Assignments

Generative AI-Resistant Assignments (University of Central Florida):

Instructions for how to design assignments that make cheating with GenAI more difficult

Designing Assignments to Limit AI Usage (North Carolina State University):

Library of instructions and workshops for how to design projects with GenAI in mind

AI Assessment Scale GPT (ChatGPT)

(Furze Smith Consulting):

Chatbot designed to help instructors build assignments with varying levels of AI integration

AI Writing Instructional Designer (ChatGPT)

(Abram Anders):

Chatbot designed to help writing teachers integrate AI into their assignments

Writing Across the Curriculum.

Resources for Teaching with AI

Build Your Own AI Prompt and Assignment Library

EAB Toolkit to Share with Task Forces and Staff Development Leaders

What You'll Find in EAB's Toolkit:



AI **guidelines checklist** to ensure staff have sufficient information to make instructional design decisions



Prompt repositories that

demonstrate the wide range of ways staff and students can learn with AI



Tried-and-true **sample assignments** that encourage productive classroom use of AI



Four Steps to Prepare Academics to be AI Educators

A Maturity Model for Staff Adoption of AI in Teaching and Learning

Tier 1: AI literacy, but	Tier 2: Module-level	Tier 3: Programme-	Tier 4: Institution-
no AI integration	AI integration	level AI integration	level AI integration
Staff understand their institution's position on AI and what tools are acceptable for which use cases Staff are AI literate and understand what AI tools are and how they work at a basic level Staff know how to design AI-proof assignments and use discussion to identify improper use	Students have at least one course that teaches generalist uses for AI tools Staff understand how to use AI tools to simplify their work and can identify tasks AI is good and bad at Staff can design and assess AI-integrated assignments, where students treat AI tools as partners	Staff incorporate AI competencies into most disciplines, starting with those most impacted by AI Staff understand how AI tools are being used in their disciplines to improve learning and research Staff redesign learning outcomes to focus on types of work AI cannot perform	All programmes have required AI components focused on how AI is changing the discipline Staff understand how AI is transforming the jobs future graduates of their programmes will hold Staff redesign assignments so that they simulate real-life job tasks using AI



StudyStash Profile and Q&A

45

SECTION

3

• Ben Ward, COO

• Jonathan Graham, COO

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Personalised Learning Built for Students, By Students

StudyStash: Neuroscience and AI-Based Learning Rolled into One

What is StudyStash?

An EdTech platform using Neuroscience and GenAI to personalise the learning process for students and lecturers .



Personalises Student Learning With Adaptive Notetaking and Assessment

- Transforms module and lecture content into optimised notes, e.g., chunking into manageable units, creating mind-maps
- Creates flashcards, mini-games, and tests to prepare for students for exams



Provides Instructor Support and Insights About Student Performance

- Generates weekly insight reports helping instructors understand where students need additional support
- Answers first-line student questions with StudyChat AI

StudyStash's Partnership with the University of Birmingham (UoB)



UNIVERSITY^{OF} BIRMINGHAM

StudyStash first piloted in select CompSci courses, and eventually throughout College of Engineering

UoB expands StudyStash to **5,000+ students in 25+ courses** across all colleges, e.g., Arts and Law, Medicine and Health

StudyStash now being rolled out to other **25,000+ students** across campus StudyStash's Widespread Adoption...

...Leads to Improved Learning Outcomes



76.5%

Of eligible students voluntarily signed up for StudyStash





34%

Of students regularly use StudyStash outside of lecture time

70,910

Pages of lecturer notes uploaded to StudyStash

78% Of students reported increased confidence managing workload



Boosting Operational Efficiency with AI

SECTION



48

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Operational Productivity

Key Themes: What roles can AI support? What tasks can it speed up and automate? What types of AI tools are available? Do academic and professional staff know how to maximise productivity gains from AI tools?

	Tier 2: Structured	Tier 3: Department or role-specific	Tier 4: AI integration across all workstreams
Tier 1: Ad-hoc use of public AI tools	common tasks	AI tools	AI systems are
Interested academic and professional staff use public AI tools for general information- gathering and basic writing support on an ad-hoc basis.	Staff have access to structured AI assistance for common tasks like budget analysis, drafting emails, etc.	are developed or purchased to meet the unique needs of specific departments or roles .	integrated into workstreams in every department and business unit across the institution.
		🔉 🔊 Also availabl	e on eab.com:

AI Maturity Model

Capitalise on AI's General Productivity Boosts

Tier 1: Getting Started with Public AI Tools



Strategic Plan

A Provost uses ChatGPT to develop a starting point for their strategic plan.



Content Creation

A marketing team employs ChatGPT for refining speeches and creating social media content, drastically cutting content production time.



Advancement Planning

A COO **successfully created ten donor building mock-ups** using DALL-E, surpassing architect renderings in presidential review.

Tier 2: Structured Assistance For Common Tasks

Copilot Brings AI to Microsoft 365 Office Tools



50



Enhance your document with additional detail and generate summaries



Build custom images for slides and create summaries of presentations



Analyze data, surface trends, and generate data visualisations



Draft emails, summarise conversations, and organise inbox automatically

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RICE Rice University HR Chatbot

Problem: Low utilisation of self-service resources leads to high volume of HR inquiries (~500/month); ~25% abandoned, distracting HR staff from higher skill work.



Chatbot **answers staff HR inquiries independently**; routes to HR staff if response is unsatisfactory



Chatbot trained and evaluated **on bank** of 250 common HR questions

Results



conversations fielded by HR chatbot in the first six weeks

Version2 Launches the "Fully Autonomous Frontline Fundraiser"

51



Goal: Autonomously manage a portfolio of donors, similar to the way a traditional fundraiser would.

Process: Narrows donor pool, qualifies donors, builds relationships through personalised touchpoints, solicits, closes, and executes stewardship without human interaction.

Tier 4: AI Integration Across All Workstreams



52

Note of Caution: It's Not as Easy as Pressing a Button .

AI Requires Rethinking Tasks, Processes, Roles, and Org Structures



AI-A Secret Cyborg?

Reasons Why Employees Don't Tout AI Experimentation

From Ethan Mollick's <u>Blog</u> on 'Secret Cyborgs'



Heard something scary about how improper AI use might be punished



Treated as heroes for their sensitive emails, rapid coding and don't want to lose that respect



Believe they (or colleagues) will be fired if company realises that AI does some of their job



Suspect that if they reveal AI use, they won't be punished but they won't be rewarded Concerned any productivity gains will become new baseline expectation



Incentivised to share their success, but have no way of promoting it

Discussion

As a table, discuss the following questions:

- What institutional challenges have you identified in implementing or piloting AI solutions?
- How is your campus community reacting to the emergence of AI tools at work?

Take an Expansive Definition of ROI



Productivity Gains Come from Reducing Input and Growing Output





SOUTH FLORIDA

USF's AI IT Service Desk

Problem: USF student workers manually sorted 100K tickets annually for USF's IT Service Desk; high volume demanded extensive student labor and attention.

Key Components



Automated Ticket Classification

Classifies incoming service tickets, automatically sorting requests based on status, service team, issue type, and priority





Targets Semantic Similarity

AI model compares new tickets to **historical data** and deploys the Completion API to generate a response



Continuous Improvement

Ticket information updates in Jira and creates a **feedback loop** that will improve classification over time

Source: Jason Hair, "<u>Revolutionizing the IT Service Desk: GPT-Powered Ticket</u> <u>Classification at USF</u>," EDUCAUSE, October 11, 2023; EAB interviews and analysis.

HR Chatbot



RICE

Rice University HR Chatbot

Problem: Low utilisation of self-service resources leads to high volume of HR inquiries (~500/month); ~25% abandoned, distracting HR staff from higher skill work.



Key Components



Vendor Partner Selected

In early 2024, Office of Transformational Technology & Innovation developed generative AI chatbot using **Ivy.ai** platform



Chatbot Trained on Common Questions

Rice employees trained chatbot on **250 most common HR questions** and evaluated answers to understand what types of responses to provide



Two Types of Responses

Chatbot answers straightforward questions with **prebuilt** response. More complex questions are sent to ChatGPT 4 for **custom** response



Carnegie Mellon University

Carnegie Mellon's Payment Application Tool

Problem: One Treasury FTE spends approximately half their time performing bank deposit receipting activities such as reviewing, recording, and reconciling bank transactions.² It's a hyper-manual process that leads to errors and causes disruptions in downstream processes.



Key Components



Created Developer Capacity

CMU prioritised projects to free up approximately 5 hours per week to build tool (Developer utilised offhours to obtain certificate from the <u>CMU computer science department</u>).



Machine Trained to Automate Work

Developer trained machine on account data to learn process and automatically enter it into Oracle; will also identify new payments that require additional training.



Designed for Reusability

Tool took 2 years to come together; however, it was built to be transferable to other processes.

1) Machine learning.

2) This work also involves participants from more than 15 departments.

Discussion

As a table, discuss the following questions:

 AI tools take time and resources to develop and implement. Is your institution looking to define ROI for the tools they use? If so, how? 60

 Data challenges and lack of technical expertise are frequently mentioned as barriers to AI implementation. How have these barriers impacted your campus?

	Off-the-Shelf Optimiser	E Iterative Innovator	Community Empowerer
<i>Posture</i> <i>Definition</i>	Prioritise ease of implementation by scaling ready-to-use AI solutions from established vendors (e.g., Microsoft)	Build AI expertise within IT by developing and deploying a small number of targeted solutions in-house	Democratise AI development by equipping community members to build their own solutions, while IT scales the most promising ones
Representative Case Study	SOUTH FLORIDA	COLLEGE	Arizona State University
Industry Prevalence			\bigcirc

61

Building Blocks of Successful, Scaled Deployment

University of South Florida Organised and Educated Before Scaling Copilot

SOUTH FLORIDA

ORGANISE



Streamline Vendor Platforms and Data for Consistency

Foundational Steps Pre-AI

- Prioritised standardizing tech stack on Microsoft; implemented cloud strategy
- **Defined data risk categories** (e.g., low, medium, high) with business partners
- **Developed function-based datasets** (e.g., finance, people, faculty) initially for self-service analytics, which enabled users to perform role-specific functions with Copilot for PowerBI and M365¹ Copilot

AI-Specific Steps

- Emphasised data loss prevention strategies (focusing on unstructured data) and streamlined metadata
- · Optimised data field names for natural language processing

EDUCATE



Educate Users at Every Level

- CIO led roadshows with department chairs showcasing Copilot functionality
- Trained executive team first before scaling
- Hosted "Coffee and Copilot" sessions for users to collaboratively troubleshoot issues
- Enabled "Prompt Buddy" library for users to share prompts



Nebula: ICare Advising Application for Health and Wellness Counselors

Problem: ICare support staff spend 30-60 minutes on background research before meeting with distressed students

 Creates background summary notes about students using OpenAI's API¹ and leveraging Ithaca's data Lakehouse

 Trained to collect student information from systems like SIS², Housing, Learning Management, and Student Success

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Additional students that counselors can meet with in an academic year

Why Ithaca College Chose to Scale the Nebula Pilot



- _____
- Not directly student-interfacing
- Staff maintain all decision-making regarding students
 - Solves Scoped Problem
- ICare staff overwhelmed with existing workload
- · Rated pilot highly



- Significantly cheaper than comparable vendor solutions
- Processing costs ~\$17 for 5,000 student records

1) Application programmeming interface.

Results:

- 2) Student information system.
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IT Team Support Turns Community Ideas Into Reality

It Takes a Village to Support the CreateAI Platform

<u>AI Acceleration Team</u> Facilitates Community Adoption and Development

- Maintains platform and develops products for community
- Evaluates and scales promising community products
- Comprised of 30 FTEs (40 total staff, 6 students), including ten programme and design, seven data science, twenty AI development, and five data architecture staff



Betaland Community Showcase Advertises and Encourages Experimentation

Hosted event where campus members could experiment with beta and trialed applications developed on CreateAI



CreateAI's Reach and Impact

206K

Professional staff, academics, and students have access

250+

Active projects approved

12

AI-enabled products scaled

- Tutorbot
- ASU GPT
- Health Research Plan Bot
- Dreamscape VR x AI

Source: Arizona State University, "<u>Technical Foundation</u>," "<u>Shaping the future, today:</u> <u>Embracing AI</u>," "<u>Meet the AI Acceleration Team</u>"; EAB interviews and analysis.

Variations of the Community Empowerer Platform



York's <u>Automated University Response</u> <u>Assistant (AURA)</u> Enables Campus to Build Own Agents

No-Code Platform Available (On Request) to Campus Constituents

Aura allows users to create and deploy AI agents (e.g., drag and drop data indexing)

Campus Builds POCs¹; IT Ushers Agents to Production

- Users request AURA access to build POCs
- AI architecture team (three FTEs) develops to production (e.g., refining data)

10 Agents Brought to Production

- Recruitment Bot responds to inquiries about programmes to potential students
 - Built with Science staff and Student Services organisation

Proof of Concept.
 Large language model.

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UC San Diego

UC San Diego Builds Task-Specific Assistants for Campus Using <u>TritonGPT</u> Platform

Custom Platform for IT to Develop Campus Assistants

TritonGPT hosts task-specific assistants built using its custom, open-source LLM

IT Builds Assistants Based on Campus Needs and Requests

- AI in Admin Working Group prioritises based on business case assessments
- IT sources ideas at campus events like
 <u>Process Palooza</u>

6 Task-Specific Assistants Built

- Fund Manager Coach provides guidance on budgeting, grant guidelines, payroll, etc.
- Job Description Helper helps write position overviews for jobs in the career tracks library

Babson is defined by our excellence in entrepreneurship, and our approach to AI is designed to continue that legacy."

Patty Patria, Chief Information Officer

BABSON COLLEGE **Off-the-Shelf** Optimiser **Iterative Innovator** Community Empowerer Standardised technology Developed class-specific Provides up to \$250K in platforms on Microsoft: AI assistants (e.q., AT-focused student pivoted to cloud strategy Mathbot, Prototype-It! in grants (e.g., providing Piloted M365¹ Copilot business analytics, Azure AI cloud credits) with 200 licenses for staff entrepreneurship classes) in Copilot Studio Interdisciplinary AI for a year research lab, The Partnering with • **Generator**, facilities Results: consultant to launch two campus innovation Presidential-level AI (e.g., hosting student 81% projects (e.q., AIinnovation showcases, enhanced financial leading faculty training) dashboard) Cite Copilot has enhanced Plans to build a no-code. their productivity AI platform

Source: Babson College, Wellesley, MA; Babson College, "Babson College Announces 'The Generator' Interdisciplinary Artificial Intelligence Lab," Newsfile, October 3, 2024; EAB interviews and analysis.

Activity

Think of one administrative or student support process at your institution that could benefit from AI.

How would this process change if you applied each AI posture?

- Off-the-Shelf Optimiser: What existing or freely available AI tools could you use?
- Iterative Innovator: What small, internal projects or pilots could you launch? What staff skills or training would be needed?
- Community Empowered: What would it look like to build a campus-wide or system-wide AI sandbox for this process? How could you scale successful prototypes?

Person who has been at their institution the longest can provide a brief overview of the most important points in the discussion.

Where Have Colleagues Found Success?



AI Literacy

- Encourage AI literacy with training for academic/professional staff and students
- Socialise AI literacy with campus activities
- Support the creation of communities of practice around AI

AI Policy



- Develop a clear campus statement supporting AI use
- Update existing policy to reflect AI environment
- Enable AI in the classroom with relevant policies and syllabi statements
- Support academic integrity with non-AI techniques



AI Governance

- Identify a governance structure that makes sense to your organisation
- Update roles and responsibilities to reflect AI duties
- Consider an AI lead position

AI Enablement

• Data, Data, Data



- Support small pilots to test ideas and develop competence
- Upskill IT staff to support sandboxes where people can develop their ideas for possible scaling up

Connecting IT, AI, and Data Governance



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72



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Source: Elon NEXT, "<u>Navigating the AI Revolution..</u>;" Elon News Network, <u>"Elon University Launches...</u>," August 20, 2024; Elon University: "Artificial Intelligence in Higher Education;" "Elon, AAC&U Publish...," August 19, 2024; "Elon's Generative AI Statement;" Higher Education's Essential Role...;" "<u>Mustafa Akben...</u>" August 7, 2024; "<u>The Future of AI</u>," March 1, 2024; EAB interviews and analysis.

Accelerate Coordinated and Strategic AI Adoption

Colorado State University System's AI Task Force

Charge: Four-month deadline to produce 1-3 pilot proposals per subcommittee

Discovery (Aug-Sept)

- · Assess current AI usage on campus
- Scan for use cases in and beyond higher education

Evaluation (Oct-Nov)

- · Benchmark with peers
- · Brainstorm opportunities and solutions
- Assess project risks (e.g., ethical)

Implementation (Dec)

- Develop 1-3 pilot proposals in SBAR¹ form
- Outline resource requirements



Assess opportunities and administer approved pilots

Situation, Background, Assessment, Recommendation.
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Source: Colorado State University, Fort Collins, CO; EAB interviews and analysis.

Fast-Track Low-Risk; Escalate High-Risk Projects

York University's Risk Assessment for GenAI Use Cases

YORK

75

Step 1: Rapid Triage Self-Assessment

If a given solution satisfies the following criteria, it requires no further assessment:



Uses only supported platforms for data processing & storage



No confidential/ regulated data



For internal audiences only



Output not used for sensitive/strategic decision-making



Ongoing testing/ ownership plan

Step 2: Institutional **Risk Assessment**

Projects that fail selfassessment are subject to central assessment:



AT Lead walks campus member through auestionnaire

AT Lead reviews responses with IT and Legal



Disputed cases elevated for AI Roundtable review

Sample Questions

- 1. What business problem or opportunity is addressed?
- Who is the audience?
- 3. What are the outputs and how will they be used (e.g., strategic decision-making)?
- 4. What data will be used and produced?
- 5. What business processes will be augmented?
- 6. How is success measured?
- 7. What are the potential risks (e.g., bias) and how will they be mitigated?
- 8. What is the plan for ongoing monitoring, oversight, and maintenance?
Concluding Thoughts: Based on we've heard today...



If you had 100 pennies, how would you allocate them across the two areas based on your institutional priorities?

Engage Academics with AI





What immediate steps can you begin taking to drive progress in each area?



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