



EAB

# AI and the Future of Higher Education

The Five Transformative Opportunities

IT Strategy Advisory Services

# HE Leaders Have Vastly Different Takes on AI

## Four AI Personas Found Across the Cabinet



**Stubborn  
Skeptic**

"AI is just the latest overhyped piece of technology."



**Passive  
Observer**

"AI is a pedagogical issue. Faculty should play around with it but that doesn't make it an IT priority."



**Curious  
Examiner**

"I am exploring AI applications, but I'm not sure what problems it helps me solve yet."



**AI  
Champion**

"AI will transform every part of higher education."

# AI Breaks the Mold of Technology Adoption

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## ChatGPT's User Base Grew Much Faster Than Other Tech Breakthroughs

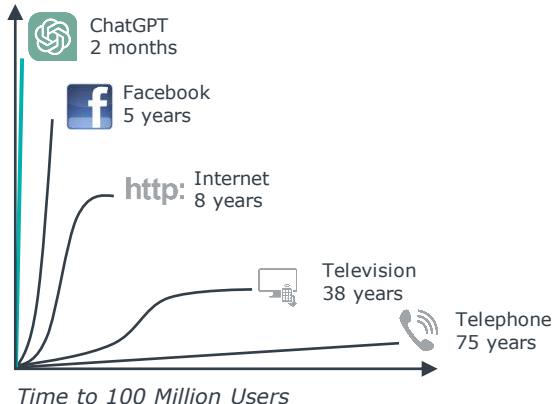
### What is Generative AI?

Latest development in AI that refers to deep-learning models that can **generate high-quality text, images, and other content** based on the data they were trained on.<sup>1</sup>



### ChatGPT's Meteoric Adoption Rate Sets Historical Precedent

*Time to 100M Users By Technology*



### Generative AI Reaches Inflection Point Due to Unique Developments

#### ▶ Accessible and User-Friendly

Web-based access allows anyone to use AI via everyday devices like PCs and phones. Users can use simple text prompts to deliver commands and process outputs.

#### ▶ Trained on Vast Knowledge Base

Models are trained on large sets of data (e.g., books, web texts, and articles from billions of Internet webpages).

#### ▶ Generates New, Human-like Content

Tools can generate new, creative content across domains (e.g., text, images, software, music, video) that is often indistinguishable from human outputs.



Source: D Gerwitz, "How does ChatGPT actually work", ZDNET, July 13, 2023; K Hu, "ChatGPT sets record for fastest-growing user base – analyst note", Reuters, February 2, 2023; EAB interviews and analysis.

1) [IBM Research definition.](#)

# Level-Setting: Three Facts About AI

## AI is Quickly Becoming a Staple in Everyday Life



### Mainstay Vendors Integrate Generative AI Into Key Offerings

- Google launches generative AI-powered search experience
- Microsoft releases Copilot throughout Office 365 Suite
- Adobe launches Firefly, generative AI for creators, across products

### More Vendors Plan to Launch AI Offerings



## Students, Staff (Even Presidents) Already Using AI Tools



89%

Of students admitted to using ChatGPT in their coursework

67%

Of higher education staff reported using generative AI for their work in the 2022-23 academic year

Wells College president Jonathan Gibraltar is among several higher ed leaders who used ChatGPT to craft parts of their graduation speech

## Business AI Tools Less Risky than Public Tools



### More Options For Safeguards With Business AI Tools

- Institutions negotiate security in contracts with AI vendors
- Vendors, along with institutions, can train tools and implement guardrails to minimize inaccuracies and hallucinations

### AI Risk Frameworks Follow Tried-and-True Templates

- National Institute of Standards and Technology (NIST) released an [AI Risk Management Framework](#) in 2023, following template of cybersecurity framework
- Focus is similarly on educating users on safe data practices

# AI and the Future of Higher Education: Five Transformative Opportunities



Incorporate AI into the Curriculum  
to Prepare Students For the Future of Work



Provide 24/7, Personalized Student Support  
With One-Stop Conversational AI



Supercharge Faculty and Staff Productivity  
to Pursue More Strategic Tasks



Maximize Enrollment and Advancement Yield  
With Hyper-Personalized Content Generation



Transcend Historical Bounds of Innovation  
in Research by Using AI to Expand  
Human Capabilities



AI and the Future of Higher Education

TRANSFORMATIVE OPPORTUNITY



Incorporate AI into the Curriculum  
to Prepare Students For the Future of Work

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# Support Faculty and Student Use of AI

## Encourage Faculty Use of AI in Pedagogy



### Institutional Statement Embracing AI

USC's Provost and Academic Senate released a [statement](#) urging faculty to encourage students to explore AI



### AI Literacy Courses

Auburn offers a hands-on "[Teaching with AI](#)" course that approximately ~600 faculty members have enrolled in



### Faculty AI Teaching and Learning Workshops

The University of Mississippi launched a paid (\$1,000 stipend) two-day [AI Summer Institute for Teachers of Writing](#)

## Create AI Learning Opportunities for Students



UNIVERSITY OF  
SAN FRANCISCO

### Student Orientation Session on ChatGPT

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



### On-Demand Student Trainings

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



### Subsidized Tokens and Microcredentials

HKU pays half of the course fees for students taking Coursera modules on AI and provides them with 500K AI access tokens (costing ~\$1-2 per student per month)

Source: J Alonso, "[Now on the Orientation Schedule: Free Speech and ChatGPT](#)", Inside Higher Ed, August 25, 2023; Vanderbilt, "[Vanderbilt launches free online ChatGPT course, shaping the future of AI education](#)", Vanderbilt University Research News, May 24, 2023; Hong Kong University, Hong Kong, China; EAB interviews and analysis.

# AI Reconstructs Nature of Work Across Industries



## AI Disruptions Across Industries

### Before Generative AI



#### TV & Movie Writing:

Studios rely on writers for source material and actors for performances



#### Legal Services:

Only basic document review can be automated or outsourced



#### Graphic Design:

Designers create projects based on preset visuals, fonts, and layouts



#### Software Engineering:

Engineers write code to implement software functionality using various programming languages



### After Generative AI

#### Writers & Actors on Strike

"Generative AI writes scripts and creates backdrops, replacing writers and background actors"

#### Rise of Robot Lawyers

"Research finds nearly half of legal work could be automated"

#### Designs on Steroids

"Microsoft Designer tool generates complex designs in an instant based on text descriptions"

#### 2X Faster with AI

"McKinsey study show software developers complete coding tasks up to twice as fast with generative AI"



# The Next Workforce Revolution



## Near Universal Consensus AI Will Transform Employee and Business Activity

### AI Investment Expected to Grow...

**53%** Increase in demand for AI/machine learning engineers (2020-2023)

**+1M** Projected growth of AI/machine learning jobs 2023-2027

**75%** of companies plan to adopt AI or AI-adapted technologies 2023-2027

### ...And Bring Major Economic Change

**30%** of hours currently worked could be automated or eliminated by AI by 2027

**50%** of current workforce tasks may be automated by 2030

**7%** Increase in global GDP because of generative AI over next 10 years

“ AI's impact ... will be as big as the introduction of the PC. Word processing applications didn't do away with office work, but they changed it forever.”

— Bill Gates

Source: Gafner, [“Best Jobs of 2023,”](#) Indeed.com, May 18, 2023; World Economic Forum, [“Future of Jobs Report,”](#) World Economic Forum, May 2023; Ellingrud et al., [“Generative AI and the future of work in America,”](#) McKinsey Global Institute, July 26, 2023; Goldman Sachs, [“Generative AI could raise global GDP by 7%,”](#) Goldman Sachs, April 5, 2023; The European Commission and US Council and Economic Advisory, [“The Impact of Artificial Intelligence on the Future of Workforces in the European Union and the United States of America,”](#) The White House, Dec. 5, 2022; EAB interviews and analysis.

# Far More Jobs Created or Impacted Than Destroyed

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## Diverse Career Outcomes as Various Jobs Are...

### ...Made Redundant by AI



#### Accelerated Losses

- Accounting clerks
- Customer service agents
- Data entry workers
- Media writers and journalists

#### New Eliminations

- Administrative secretaries
- Budget and financial analysts
- Coders
- Technical writers

### ...AI-Impacted



#### Qualifications & Skills Listings for 2023 Job Postings on Indeed.com

- **Graphic Designer:** "Familiarity with AI and ChatGPT technology"
- **Protein Sciences Research Scientist:** "Experience utilizing artificial intelligence protein design, SAR, or related biological applications"
- **Content Writer, Editor, and Researcher:** "Proficiency in prompting and navigating AI tools such as ChatGPT"

### ...AI-Created



#### Common AI Job Posting and Salary

- Prompt Engineer & Librarian (\$375,000)
- Head of Artificial Intelligence (\$200,000)
- Senior Creative Evangelist (\$200,000)
- Natural Language Processor (\$190,000)
- AI Consultant (\$100/hour)
- AI Prompt Engineering Creator (\$100/five prompts)

19%

of US workers  
in jobs exposed  
to AI

21x

Increase in jobs  
mentioning GPT  
from Nov '22-  
August '23

#1

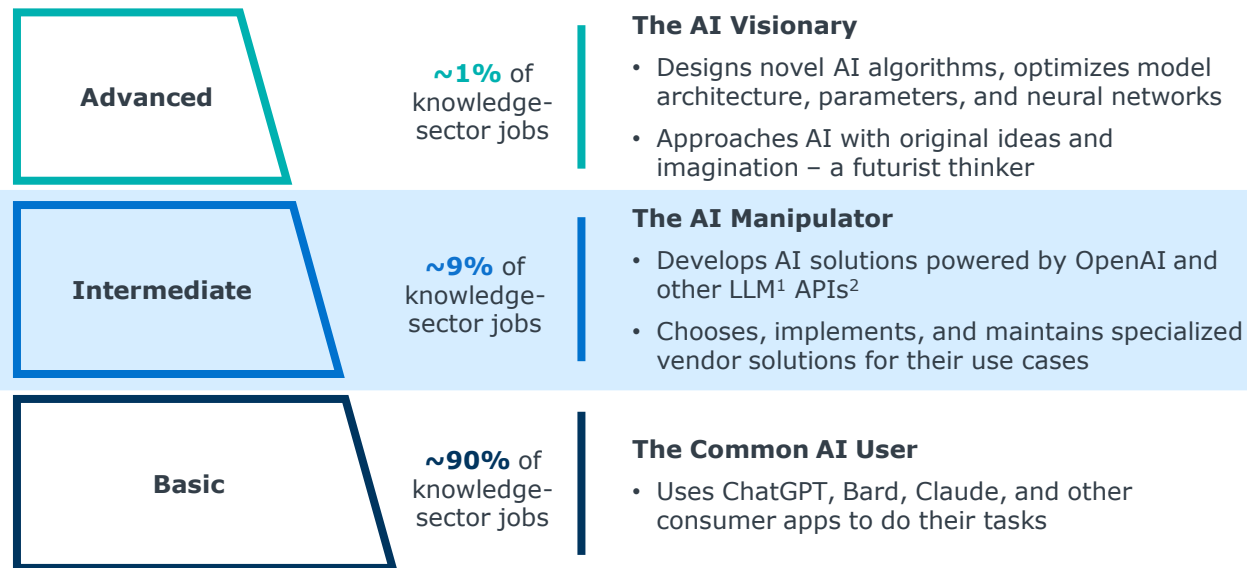
Fastest growing  
job category (AI  
and Machine  
Learning Specialist)

Source: "[Future of Jobs Report](#)," World Economic Forum, May 2023; "[Future of Work Report](#)," LinkedIn, August 2023; Kochhar, "[Which U.S. Workers Are More Exposed to AI on Their Jobs?](#)" Pew Research Center, July 26, 2023; Komand, "[Looking for a career with big money and perks? How much jobs in artificial intelligence pay.](#)" *USA Today*, June 15, 2023; Malinsky, "[4 in-demand freelance A.I. jobs—one can pay \\$100/hour.](#)" *CNBC*, Aug. 17, 2023; Gafner, "[Best Jobs of 2023.](#)" *Indeed.com*, May 18, 2023; "[Job Search.](#)" *Indeed.com*, July 21, 2023; Mok and Zinkula, "[ChatGPT may be coming for our jobs.](#)" *Business Insider*, Sep. 4, 2023; EAB interviews and analysis.

# How Advanced Do IT Staff Need to Be?



## Levels of AI Knowledge by Future Workforce Demand



1) Large language model.

2) Application programming interface.

# UF Infuses AI Education Into All Disciplines

Preparing Students for the Future Requires AI Integration into Coursework

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



### Top-Down Approach to AI

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



### AI-Specific Faculty Hired

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



### AI Courses Across All Disciplines

230 AI courses offered at undergraduate, graduate, and professional levels, and range from introductory to major-specific



### AI Pathways Career Coach




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



### Course Offerings

- AI in Agriculture and Life Sciences
- Business Applications of Artificial Intelligence
- AI in Healthcare and Public Health

### Research Applications

-  AI System Detects Bruised Strawberries Before Market
-  Building Equitable Workplaces with AI Technologies
-  AI Platform Predicts Surgical Complications

## AI Becomes as Essential to Learning as Math and English



### **AI Pathways Across Disciplines— and Even Entirely New AI Disciplines**

Not only will every discipline include built-out AI pathways, but entirely new disciplines will emerge, much like how the rise of data analytics spawned fields like business analytics.

- Ex: AI Behavioral Sciences, a new discipline at the intersection of AI and human behavior, focusing on AI's influence on social dynamics and individual decision-making.



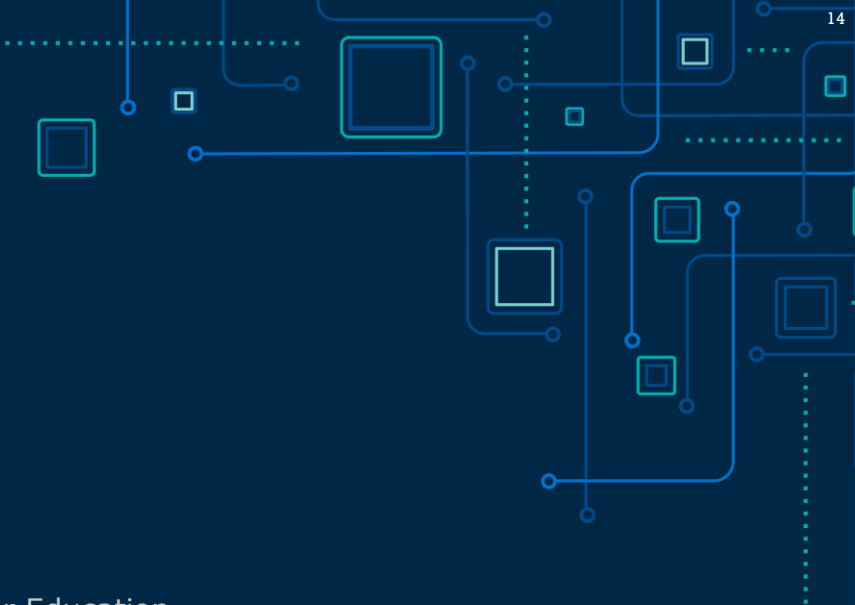
### **AI Becomes an Essential Teaching and Learning Tool**

Faculty will move away from designing AI-proof assignments to requiring the use of AI tools.

- Ex: Language classes will require interactions with AI avatars who speak in native tongues and create immersive environments, allowing for real-time cultural immersion and language practice.

### **Key Questions For CIOs**

- How embedded is AI in your current curricula and teaching and learning infrastructure?
- What steps must your institution take to reach this future state?
- What role does the CIO play in infusing AI across the curriculum?



## AI and the Future of Higher Education

TRANSFORMATIVE OPPORTUNITY

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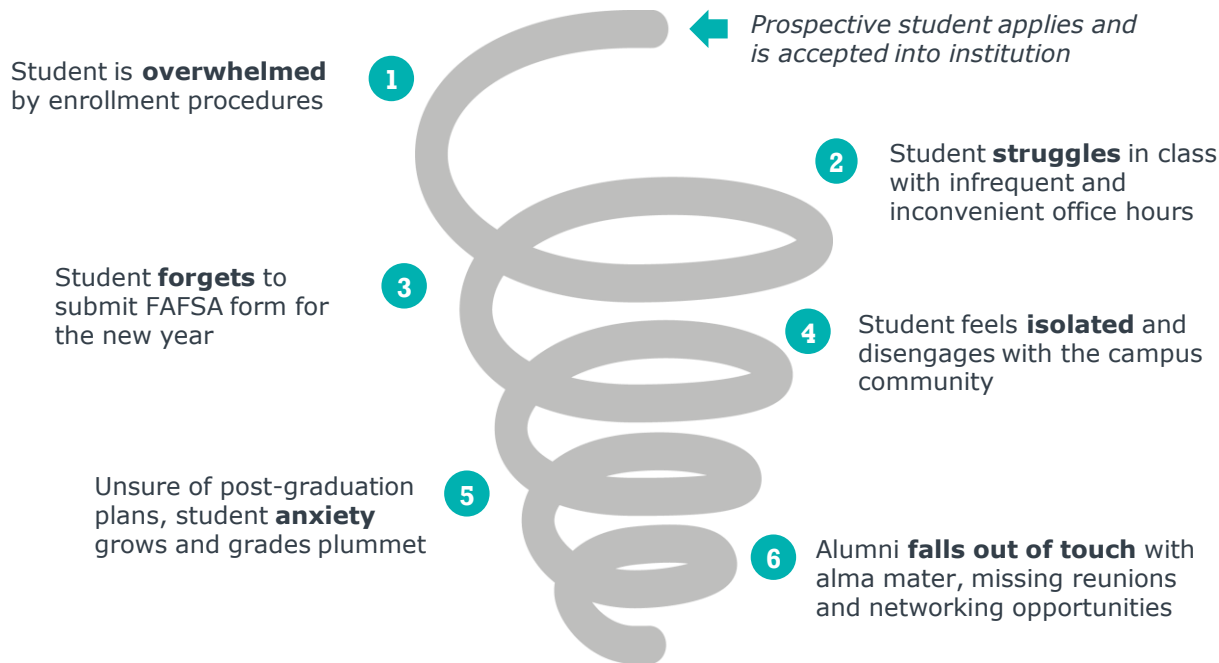


Provide 24/7, Personalized Student Support with One-Step Conversational AI

# No Student Left Behind?



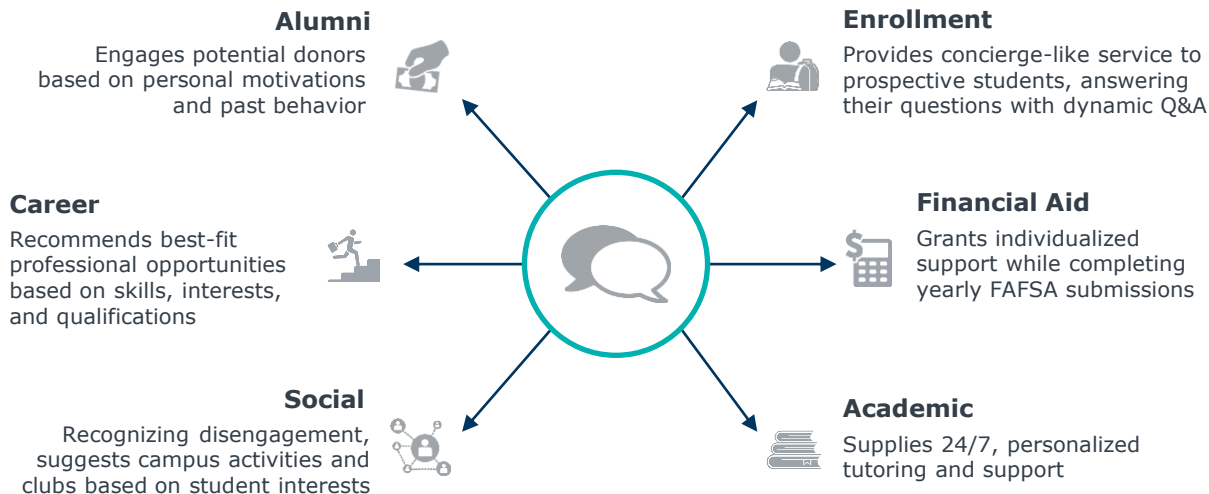
## Service Pitfalls Throughout the Student Lifecycle



# No Longer a Pipe Dream—24/7, Personalized Service

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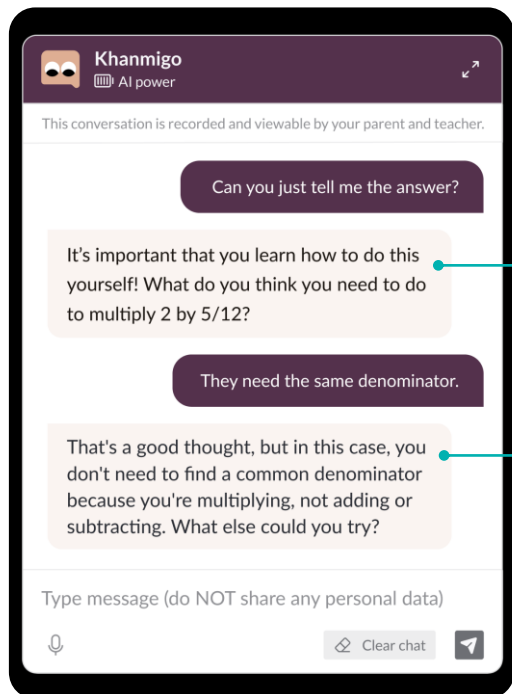
## How One-Stop Conversational AI Preempts Common Service Pitfalls





# The Tutor That Never Sleeps

## Khan Academy Launches Conversational AI Tutor Personalized to Students



### Case in Brief: Khanmigo, AI Tutor

- ▶ Khanmigo supports real-time, one-on-one tutoring personalized to students.
- ▶ The conversational AI operates on GPT-4 and is trained on Khan Academy's learning content.

### How Students Can Use Khanmigo



Coach writing



Serve as a debate partner



Assist with coding



Converse with historical figures

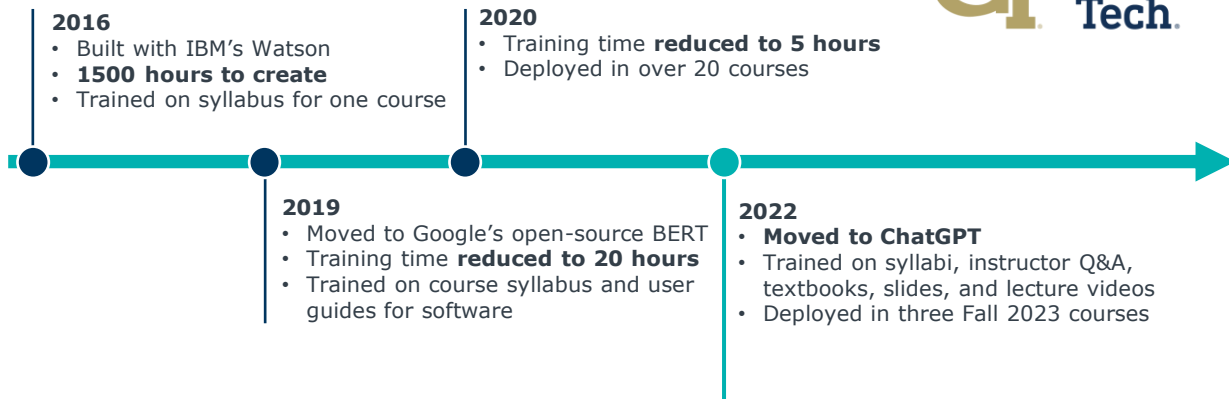
Additional guardrails prevent Khanmigo from outright giving students answers when they are struggling and ensure Khanmigo always keeps an encouraging tone.

# Georgia Tech Builds AI Teaching Assistant



**Jill Watson** is an AI-powered virtual teaching assistant (TA) tailored to individual courses, that saves instructor time by answering student questions how a human TA would.

## Developmental Timeline of Jill Watson



### ChatGPT Pushes Jill Watson Beyond Basic Student Inquiries

- The AI teaching assistant can now not only answer basic student course questions, but **tutor students on course content** (e.g., explain course topics, help with assignments)
- Jill Watson serves as an intermediary, fact-checking ChatGPT responses before sending to students, **reducing the hallucination rate in ChatGPT from 40% to 11%**

Source: "[AI-Powered Adaptive Learning: A Conversation with the Inventor of Jill Watson](#)", *Online Education*, May 13, 2020; Georgia Institute of Technology, "[Jill Watson: A Suite of Online Learning Tools](#)", *Design & Intelligence Lab*, October 20, 2017; J Preston, "[Jill Watson, an AI Pioneer in Education, Turns 4](#)", *Georgia Tech*, January 24, 2020; J Young, "[Georgia Tech Is Trying to Keep a ChatGPT-Powered Teaching Assistant From 'Hallucinating'](#)", *EdSurge*, June 22, 2023; EAB interviews and analysis.



# Generative AI Lowers Barrier to Entry

## Two AI Tools Developed Out of the University of Michigan

### U-M GPT: A General AI Assistant

**U-M GPT** answers any academic or UM-specific question for all campus members. It can also summarize general information and produce written work.

Users can choose and experiment between **AI models** (GPT-3.5, GPT-4, Llama 2) depending on their needs

#### Technical Details

- ▶ Students can access U-M GPT at **no cost** and can generate up to 25 prompts per hour<sup>1</sup>
- ▶ No **user-specific data** is used to train the model subsequently

### U-M Maizey: A Personalized AI Tool

**U-M Maizey** connects to user’s personal accounts (e.g., Google, Canvas) to provide customized answers to questions as well as insights from connected data sources.

#### With U-M Maizey, Users Can:

- ▶ Upload unstructured, natural-language texts such as Google Docs, PDFs, etc.
- ▶ Adjust the AI tool by changing the “temperature” or, sensitivity, of outputs
- ▶ Use or share their customized AI tool

U-M Maizey is available to members of the UM community at no cost through 2023. Afterwards, users will be charged monthly<sup>1</sup>



# 8 Months

was spent on **tool development** post-ChatGPT’s release. The tools allow for moderate-sensitive data to be inputted.

1) Each question asked is considered one prompt.

# Looking Forward With AI



## Say Goodbye to Text Chatbots, Say Hello to Your Omnipresent AI Buddy



### Not Just Chatbots Anymore – AI Provides Multimodal Support

Future student support bots (based on multimodal LLMs<sup>1</sup>) will be able to output multimodal content.

- Ex: Student asks a bot to draw a map of their route to class or verbally talk them through a complex course topic.



### Student Support Anytime, Anywhere and Everywhere

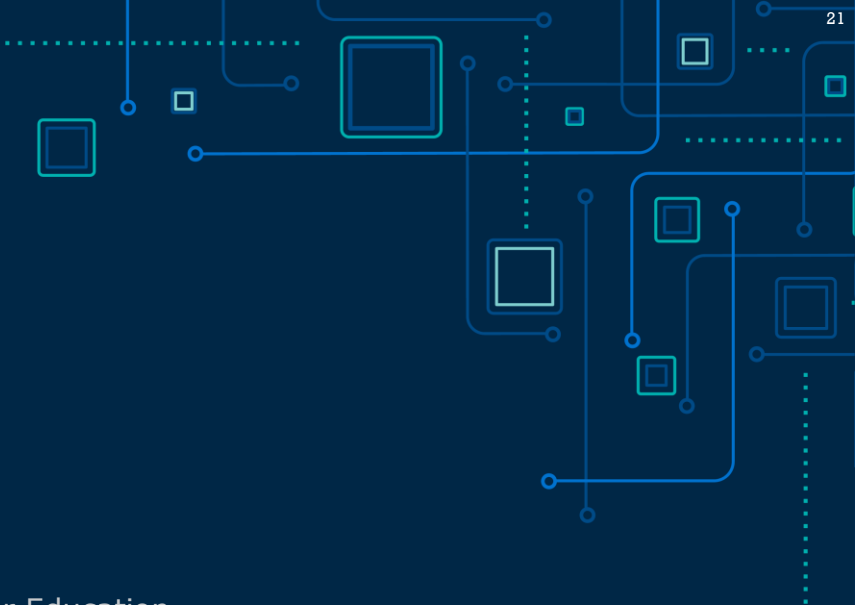
Future AI bots will provide support everywhere, not just through chat interfaces in a phone or computer.

- Ex: Students speak “into the air” (i.e., to their phone or devices like Amazon Alexa’s) and receive assistance no matter where they are on campus, while still receiving text records of interactions.

### Key Questions For CIOs

- Do you have an existing chatbot that could be upgraded with generative AI?
- What are the pros and cons of building your own student support bot versus partnering with a vendor?
- What data collection and management is necessary to create an AI bot?
- Who will be responsible for maintaining student support bots?

1) Large language model.



## AI and the Future of Higher Education

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Supercharge Faculty and Staff Productivity to Pursue More Strategic Tasks

3

## Generative AI Projected to Augment Majority of Roles

# 2/3

Of current jobs are exposed to some degree of AI automation

# 50%

Of current workforce tasks may be automated by 2030

# 75%

Of companies plan to adopt AI or AI-adapted technologies 2023-2027

## Different Classes of AI Tools Promise Compounding Productivity Gains

### Publicly accessible AI tools



Staff member uses GPT-4 to generate drafts of emails and project plans

### New AI features in university-wide software suites



Budget analyst uses Microsoft Copilot to visualize data in Excel and create a summary of the data in Word

### Specialized AI solutions



General counsel uses AI assistant to complete contract analysis and surface insights on past contracts



## Administrative Assistant

An administrative assistant at Maple University<sup>1</sup> uses Bard to write email responses for scheduling appointments, allowing him **to focus more on executive assignments.**



## Provost

Louisiana State University's Provost generated a syllabus for an [interdisciplinary AI course](#) in **one hour as opposed to an entire workday** using ChatGPT.



## Marketing Officer

A marketing officer at Southern New Hampshire University used ChatGPT to write a commercial script, **drastically cutting time and money spent in production.**



## President

A president used ChatGPT to write his 2023 commencement address, which **required minimal edits to personalize.**

1) Anonymized institution.

# Technology Giants Brings AI to Everyday Tool Suites

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Microsoft and Adobe Make Broad AI Capabilities Accessible to Campus

## Copilot Brings AI to Microsoft 365 Office Tools



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 visualizations



Draft emails, summarize conversations, and organize inbox automatically

## Adobe Firefly Boosts Creativity with Generative AI



Level up your social media posts, posters, flyers using text prompts to create images



Transform your images and bring them closer to what you envision by editing image elements



Elevate and refine work output with by applying color variations and themes



Augment existing or generate new images through simple text prompts



# Private Sector Deploying Specialized AI Tools

## Morgan Stanley

### Financial Expertise

Morgan Stanley deployed OpenAI's GPT-4 to power an **internal CAI<sup>1</sup> bot** designed to enhance the accessibility of its vast content library and **support its financial advisors.**

#### Training Details:

- GPT-4 trained on 100,000 Morgan Stanley bank and research documents (e.g., market research, analyst insights)
- Feedback from 200+ daily employee interactions is used to improve the model

#### Capabilities:

- **Answer general business inquiries** (e.g., who are our market competitors?)
- **Answer role-specific process questions** (e.g., how do I include an IRA in a trust?)
- **Provide investment recommendations** tailored to client profiles



### Tax, Legal, and HR Insights

PwC partnered with Harvey, which is built on OpenAI and ChatGPT technology, to develop **domain-specific models** to support its staff's **tax, legal, and HR work.**

#### Training Details:

- Model trained on general legal data (e.g., case law) and Harvey's specialized knowledge bases
- PwC further trained the model with its tax and legal data and policies

#### Capabilities:

- **Perform contract analysis** (e.g., identify and summarize contract obligations)
- **Conduct due diligence** (e.g., investigate a firm for an M&A)
- **Offer legal insights** staffers can share with clients

1) Conversational AI.

# Universities Placing AI Bets to Cut Costs



## AI Staff Productivity Boons Throughout Departments

### Modest Bets to Augment

#### Admissions

Maryville University used Sia to automate transcript review, affording 14 admissions counselors **50% more time to build deeper relationships with students** through online and social media campaigns

#### Procurement

University of Florida uses AI tools to review contracts and ensure regulatory compliance in a matter of **minutes instead of hours**



### Big Bets to Replace Staff

#### Registrar

By automating **transfer credit evaluation**, Maple University<sup>1</sup> projects being able to achieve a **90% reduction in staff** required for this task

#### Enrollment Marketing

Maple University<sup>1</sup> projects that they will be able to **cut marketing costs by 40-50%** once they start using AI to help in their marketing campaigns

1) Anonymized institution.

# Looking Forward with AI



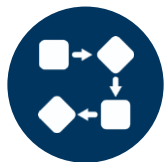
No Longer Viewed as a Corporate Productivity Tool, Every Role Embraces AI



## Specialized AI Assistants for Each Department and Role

Faculty and staff departments will provide department- and role-specific AI assistants capable of supporting a variety of use cases to everyone.

- Ex: A contract administrator not only uses their AI assistant to conduct contract review, but to provide insights on past vendor negotiations.



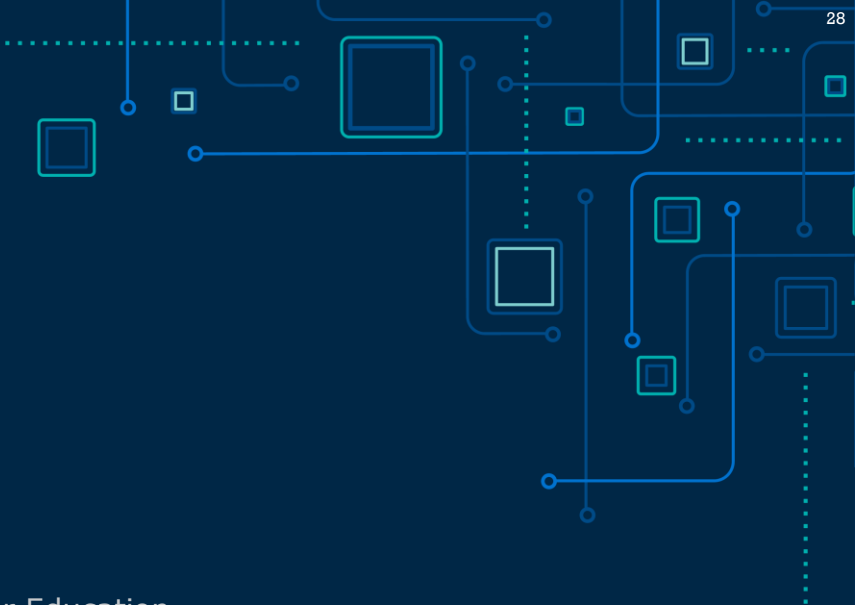
## Faculty Research Administration Largely Automated

Faculty will embrace AI solutions that will help them streamline research administration.

- Ex: AI tools generate biotech's and automate completion of grant applications, giving faculty more time for core pedagogical and research activities.

## Key Questions For CIOs

- How will you evaluate AI vendor tools and integrations?
- What is the role of IT in enabling faculty and staff AI tool usage?
- What steps need to be taken with faculty and staff to ensure security and data privacy when using AI tools?



## AI and the Future of Higher Education

TRANSFORMATIVE OPPORTUNITY



Maximize Enrollment and  
Advancement Yield with Hyper-  
Personalized Content Generation

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# Personalize Communications With AI

## Progressive Stages of Outreach Personalization

### Uniform messaging



Enrollment sends prospects a **mass mailer** with general campus information.

### Tailored communication



Enrollment sends tailored emails to **prospect segments** based on students' interests and demographic profiles

### Hyper-personalized outreach



Prospects receive **custom outreach** based on academic/personal interests via **preferred modality and communication channel**.

## AI Enables Personalization At-Scale By...

- ▶ **Modulating the tone** of outreach based on both the **sender and recipient**
- ▶ **Curating individualized content** based on recipients' background and interests
- ▶ **Generating content across modalities**, whether through a video, infographic, or interactive webinar
- ▶ **Automating** parts of every step of the outreach process **from content creation to delivery**

# The Marketing Arms Race's Next Evolution

## Use AI to Hyper Personalize and Scale Outreach

### Two Ways USC's Annual Giving Team Used AI-Generated Messaging

### *Improved Yield and Time Savings*

#### 1 High-Volume Giving Day Outreach

- Used ChatGPT to generate messages for high-volume annual Giving Day campaign
- Customized messages based on past donor behavior and written in the voice and tone of the giving team



Highest number of Giving Day donors in 6 years

**2K**

First-time donors

#### 2 Fiscal Year-End Appeals in the Dean's Voice

- Composed 392 appeals written in the voice of Deans from 20+ departments
- Team provided ChatGPT examples of previous Dean's appeals, fund descriptions, and donor history
- Nearly zero edits needed

**392**

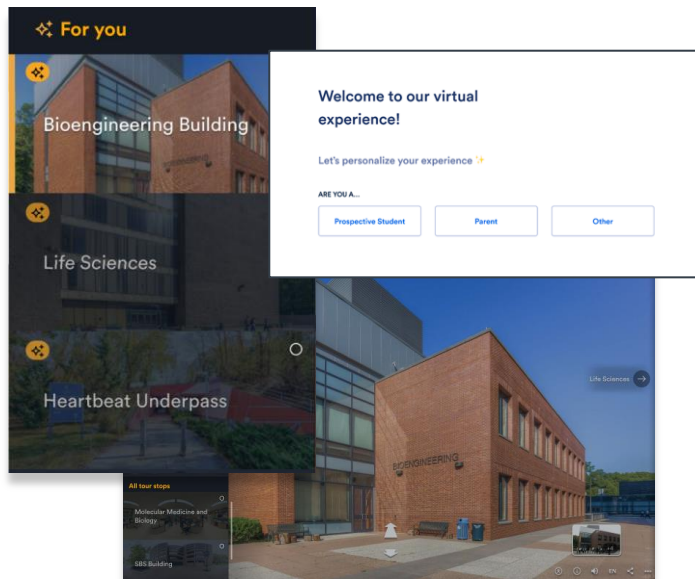
Letters generated in a few hours

**+2**

Weeks of staff time saved

# AI Takes on Tour Guides

## E360 Tailors Virtual Campus Tours to Student Interests



WHAT ARE YOU INTERESTED IN SEEING ON CAMPUS?

I would like to see the dorms, cafeterias and gym on campus.

### How E360 Personalizes Virtual Tours with AI

**Input:** Users shares interests and identifies the type of visitor they are

**Generative AI** analyzes campus data to prioritize elements, then selects relevant locations and **crafts tour content** accordingly

**Output:** A multi-stop campus tour specifically structured to users based on expressed interests and needs

**Before  
Generative AI**

Visitors followed one set pathway through tour

**After  
Generative AI**

Vectorization matches interests with campus spots

## Multi-Modal Connections



### Generation of Creative Content Across Modalities

Multimodal LLMs<sup>1</sup> will streamline the institution's production of creative content across modalities at scale.

- Ex: Institutions generate personalized content from video promos to musical jingles, in line with institutional tone and branding.



### Automatic Distribution of Personalized Outreach With Minimal to No Review

Advanced AI tools that have been sufficiently fine-tuned and have proper guardrails in place will:

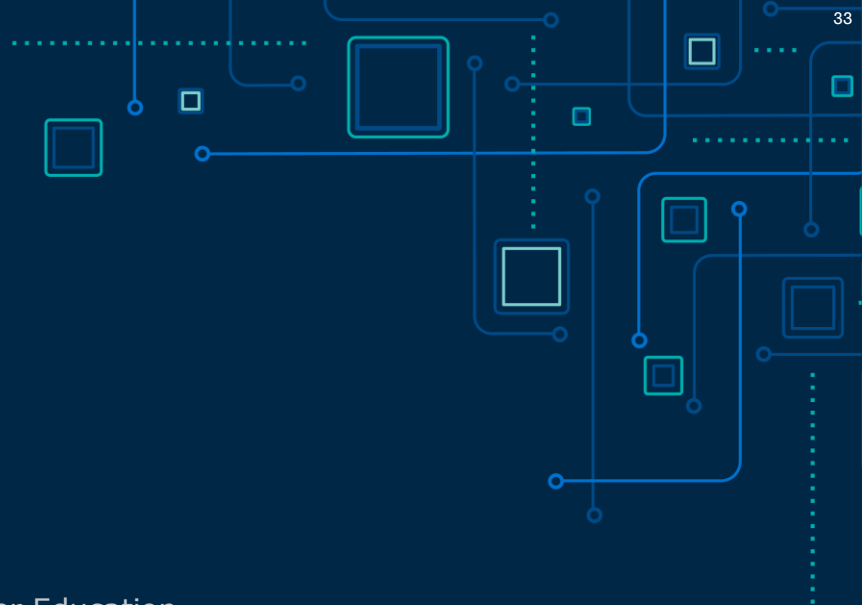
- 1) Generate personalized outreach at scale.
- 2) Automatically send out personalized outreach with no human review.

### Key Questions For CIOs

- What existing systems and data sources will be used with AI?
- What regulations should we develop to support using AI to personalize content?
- What training do enrollment and advancement staff need to effectively use AI tools?
- How will humans be kept in the loop when using AI to generate content?

1) Large language model.





## AI and the Future of Higher Education

TRANSFORMATIVE OPPORTUNITY



Transcend the Historical Bounds of Innovation in Research by Using AI to Expand Human Capabilities

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# The AI Research Gold Rush Begins



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## The Promise of AI-Assisted Research Shines Brightly...

### MIT Technology Review

DeepMind Has Predicted the Structure of Almost Every Protein Known to Science



Researchers: AI Helps Find Antibiotic to Fight Deadly Superbug

### THE NEW YORKER

Can We Talk to Whales? Researchers Say That With Artificial Intelligence – Yes

## ...While Governments Commit Unprecedented Levels of Funding

### U.S.A

- Invests **\$140 million** to establish seven new national AI research institutes after spending **\$3.3 billion** on AI research in 2022

### Canada

- Awards nearly **\$1.4 billion** for AI and robotics research in largest-ever federal university grant

### U.K.

- Announces **£54 million** investment to develop trustworthy AI research

### Germany

- Plans to double public funding for AI research to nearly **€1 billion** over next couple of years

Source: M Heikkilä, "[DeepMind has predicted the structure of almost every protein known to science](#)", *MIT Technology Review*, July 28, 2022; A Blackwell, "[Researchers: AI helps find antibiotic to fight deadly superbug](#)", *CNN*, May 26, 2023; E Kolbert, "[Can We Talk to Whales?](#)", *The New Yorker*, September 4, 2023; C Smith, "[£54 million boost to develop secure and trustworthy AI research](#)", *Department for Science, Innovation and Technology*, June 14, 2023; N O'Neill, "[Largest-ever federal university grant awarded for AI and robotics research, as part of \\$1.4B fund](#)", *CTV News*, April 28, 2023; T Escritt & D Syamath, "[Germany plans to double AI funding in race with China, U.S.](#)", *Reuters*, August 23, 2023; EAB interviews and analysis.

# AI is Changing Research For Good



## University of Florida's Synthetic Data Sets

NVIDIA and **University of Florida Health's** neural network, SynGatorTron, is a 5 billion-parameter language model designed to generate **synthetic patient data** based on health records

- Synthetic patient data mimics real populations and can be used for medical research without the risk or privacy concerns that come with real patient data.

## UC San Francisco Takes on Food Deserts



UC San Francisco developed NOURISH, an AI platform that helps **provide access to affordable and healthy food** for people living in food deserts

- NOURISH utilizes AI to match local food growers to meal preparers and high-need consumers, lowering the cost to provide food to low-income communities



## University at Buffalo and Speech

SUNY Buffalo is developing an AI tool that **monitors and analyzes children's speech** and language processing abilities in real-time, providing insights to specialists

- **AI Screener:** Assesses speech using live video and audio streams
- **AI Orchestrator:** Monitors children's progress and uses this data to adjust their lessons

## University of Kentucky Decodes Ancient Writings



University of Kentucky is **using AI to rediscover ancient texts** previously unreadable due to damage

- This new approach uses AI to differentiate ink from papyrus allowing researchers to read ancient Roman scrolls long thought to be destroyed



## AI as a Research and Productivity Tool Establishes a Faculty Foothold



### **AI Infused Across Research in All Disciplines**

Faculty will explore AI for research across disciplines as:

- 1) Faculty see how AI can enable new types of research previously not possible throughout disciplines.
- 2) Research leadership drives faculty AI use in research to remain competitive for funding.



### **Fluency With AI Tools Becomes a Fundamental Research Skill**

Due to widespread AI applications and research opportunities, faculty will need to know how to use AI tools.

- Ex: How faculty today must have some level of competence with statistics regardless of field.

### **Key Questions For CIOs**

- What role does IT play in enabling and providing ongoing support for future AI research?
- What infrastructure investments (e.g., data storage, AI tool licenses) investments does our institution need to make to prepare for this future?
- To what extent can and should IT help train faculty on AI tools and models?
- Are there state, federal, or grant-specific AI regulations that we will need to consider in the future?

# How EAB Can Help You Address AI Challenges

## EAB's Artificial Intelligence Resources



### Board and Cabinet Briefings on AI in Higher Education

Bring these insights to your campus. Equip your cabinet, board, or other stakeholders with a deeper understanding of the AI trends shaping higher ed.



### [AI Promises Infographic](#)

Learn more about the promises of artificial intelligence by requesting the latest ITSAS infographic from your strategic leader.



### AI Strategy Workshop

Prepare your campus for the AI future by participating in a strategy workshop led by EAB experts. Leaders will learn the key elements of AI strategy and begin to apply these lessons and develop a cohesive AI strategy for their own institution.

## Presidential Experience Lab: Artificial Intelligence and the Future of Work

June 4-5, 2024 | Silicon Valley

- Have your Presidents join us as we visit cutting edge technology companies and hear from leading academic practitioners to see how AI is already disrupting the future of work.



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