Microsoft

Microsoft Education

AI Toolkit

A navigator for education institutions
to plan their AI journey

Contents

Section 1

Overview

In this section

Welcome to the Microsoft Education AI Toolkit

At Microsoft, we stand ready to support you as our advancements in AI are grounded in our mission to empower every person and every organization on the planet to achieve more. Generative AI technologies like Microsoft 365 Copilot Chat are changing the way we research, work, and learn—and we share your excitement in how they are already being used. This toolkit has been specifically created for education lead ers to provide knowledge, strategies, and recommendations about their effective and responsible use so you can begin your AI journey today.

We are committed to creating technologies that are accessible, inclusive, and tailored to meet the diverse needs of all learners. Our AI systems are designed responsibly—keeping people at the center of safe, secure, and trustworthy use of these tools.

In the pages that follow, you'll be introduced to a variety of technologies including Microsoft 365 Copilot Chat, Microsoft 365 Copilot, GitHub Copilot, and Azure AI Foundry as well as the stories and best practices that showcase how they are already being used by education institutions across the globe–along with the latest research that demonstrates the positive outcomes these AI solutions are having. We've also provided step-by-step instructions, screenshots, and links so you and your team can try these amazing tools for yourself.

As we continue to advance these technologies, we recognize the important role organizations like yours will play in shaping the future of teaching using these new tools. Your engagement with this resource will deepen your understanding of generative AI and will provide a means to learn from the experiences of other educators and institutions—those we call AI Navigators.

Thank you for your interest in Microsoft's generative AI technologies and all you do to prepare the next generation of leaders and innovators. We look forward to continuing this exciting journey with you.

Matt Jubelirer

General Manager
Education Product Marketing
Microsoft Corporation

How to use this resource

The Microsoft Education AI Toolkit helps education leaders at all levels—universities, schools, state departments, and ministries—advance their use of generative AI with knowledge, strategies, and tips, tailored to different stages of their AI journeys.

Organized into five categories—Overview, AI Navigators, Plan, Implement, and Research—you can easily explore frameworks, guidelines, examples, and much more using the navigation tabs on the right-hand side of the PDF.

Using Microsoft 365 Copilot Chat

Copilot Chat is your everyday AI assistant. There are several ways to access Copilot Chat including any modern web browser and even on your mobile devices as a standalone application.

For education customers and students aged 13 and older, Copilot Chat is free to use with your Microsoft login. When you use your academic credentials, you'll have access to enterprise data and copyright protection.

Different features of Copilot Chat

Image generation: Use Copilot Chat to generate images, infographics, and posters based on your text descriptions. Learn more by reviewing the AI art prompting guide.

Windows 11 integration: Access Copilot directly from your Windows 11 desktop by selecting the Copilot icon on the taskbar to get instant assistance without disrupting your tasks.

Edge browser sidebar: In the Edge browser, select the Copilot icon in the upper right corner to facilitate real-time assistance while you navigate the web.

Get started using AI prompts

Throughout the toolkit, you'll find boxes like this one to copy and paste into Copilot Chat at m365copilot.com to experience the power of AI firsthand.

Copilot prompt

Assume the role of an education institution leader for a medium-sized institution and provide five guiding questions and summary responses to help ensure ensuring the responsible use of generative AI.

Tip: Use Copilot Chat to explore this toolkit and other PDFs

If you have a paid work or school Microsoft 365 account (required to upload large files), use Copilot Chat to explore this and other PDFs by summarizing or extracting insights. To get started, attach the AI Toolkit PDF in Copilot Chat and ask it to:

- Summarize the section titled "The power of possible."
- Create a concise list of next steps to develop an institutional AI policy for my [K–12 district, high school, or college].

The power of the possible: The promise of generative AI in education

Generative AI is reshaping the way we teach and learn, creating new possibilities across all levels of education—from primary and secondary schools to higher education institutions. For educational leaders, generative AI's potential offers significant opportunities to advance student success, drive institutional innovation, and simplify and secure IT.

For example, generative AI makes personalized learning easier for educators. With Learning Accelerators and AI-powered tools like Copilot and agents, educators can tailor educational content to individual needs, giving students real-time feedback and flexibility to learn at their own pace.

Leaders can also encourage innovation by leveraging generative AI to streamline operations and support. With Azure AI Agent Service, IT professionals can develop and deploy helpful agents that guide students through tasks like scheduling, tech support, or finding resources.. Microsoft Copilot in Fabric also gives leaders and educators actionable data to make decisions faster and with confidence.

Generative AI is simplifying and securing IT by providing proactive, AI-driven threat protection that reduces workloads and increases efficiency for IT professionals. Security Copilot augments security teams with industry-leading AI capabilities that summarize vast data signals into key insights to cut through the noise and respond faster to threats.

While generative AI can offer significant benefits in education, addressing concerns such as responsible use, data privacy, algorithmic bias, and the need for human interaction in learning is essential. By integrating AI to complement rather than replace educators and focusing on security and fairness, we can build trust and create a more effective, inclusive educational environment.

Generative AI isn't just a technological upgrade—it's an opportunity to inspire the next generation of innovators. As educational leaders, you can use it to foster creativity, curiosity, and a love of learning, preparing students with the skills and mindset to achieve more in a changing world.

Introduction to AI

Since the release of ChatGPT in late 2022, generative AI has become one of the most widely discussed technologies, shaping how we work, learn, and engage with entertainment. At its core, generative AI uses complex algorithms and large datasets to create original content, including text, images, music, video, and more.

Understanding AI fundamentals helps you make informed decisions and support an equitable future for students. As an IT or education leader, you play a key role in integrating AI into teaching, learning, and operations. This includes strengthening your security posture and safeguarding data privacy. Taking a holistic approach ensures a secure, accessible, and inclusive educational experience for every student.

Copilot prompt

You are a computer scientist who works with AI. Explain the prevalence of AI to an audience of K-20 IT professionals and school leaders. Give clear and easy-to-understand explanation of AI, demystify AI and inspire innovative educational applications. Then give 5 unique examples for both K-12 and higher education instuitutions of how AI is currently used in educational settings from personalizing learning to helping with administrative efficiency.

The subsequent pages in the Overview section offer an array of practical and contextualized insights.

- Navigate through a concise evolution of AI technology in **A brief overview of AI.**
- Delve into data's central role in education by reading **It's all about the data.**
- Examine AI's impact on work skills in **AI and the future of work.**
- Scan the functions of each copilot in **Get to know the Microsoft AI tools.**
- Explore suggestions for how different educational practitioners might use generative AI in **Copilot for IT leaders, Copilot for education leaders, and Copilot for educators.**
- Plan for student interaction with AI by reading **AI for students.**
- Meet the AI-powered tools that boost student learning in **Learning Accelerators.**
- **Engage with the sample Copilot Chat prompts** sprinkled throughout the section.

A brief overview of AI

Artificial intelligence (AI) emerged in the 1950s, with pioneers like Alan Turing exploring whether machines could think like humans. The 1954 Dartmouth Conference officially launched AI research, sparking cycles of progress and skepticism. Over the years, advances in computing power, larger datasets, and sophisticated algorithms have propelled AI forward, especially in machine learning (ML).

Neural networks, deep learning, and natural language processing (NLP) have made ML more practical, enabling machines to interpret and generate human language. Today, AI powers everyday technologies like virtual assistants, recommendation systems, autonomous vehicles, smart devices, email filters, and translation apps.

A key innovation is generative AI, which allows users to create text, images, code, and more with simple prompts. This makes content creation accessible to all users.

Small models, big benefits for education

Small language models (SLMs) provide a compact alternative to large language models (LLMs) like ChatGPT. SLMs handle tasks like language processing, coding, and basic math with far fewer resources, making them especially valuable in educational settings with limited computational capacity.

SLMs are run locally on devices, reducing latency and enhancing privacy, which is critical for regulated environments or areas with limited network access. While SLMs have a narrower knowledge base and less contextual understanding than LLMs, they excel in tasks that don't require extensive reasoning or complex data analysis. Their resource efficiency allows schools to integrate AI broadly, providing scalable solutions that support personalized learning experiences and streamline administrative processes without extensive infrastructure.

1950s
Artificial intelligence

The field of computer science that seeks to create intelligent machines that can replace or exceed human intelligence.

1959
Machine learning

Subset of AI that enables machines to learn from existing data and improve upon that data to make decisions or predictions.

2017
Deep learning

A machine learning technique in which layers of neural networks are used to process data and make decisions.

2021
Generative AI

Create new written, visual, and auditory content given prompts or existing data.

It's all about the data

Data drives education, shaping strategies, improving teaching, and fostering continuous improvement. As institutions embrace AI, effective data management is essential for adopting technology and making informed decisions. One of the greatest challenges to adopting AI solutions in education is data silos—isolated repositories that limit access and insights. Breaking down silos and adopting unified data strategies opens the door to deeper insights, personalized learning experiences, and data-driven decisions.

Building a strong data foundation

A robust data management strategy begins with integration. Start by connecting diverse data types to create a unified system. Implementing basic security measures, like encryption and role-based access controls, ensures sensitive data remains protected.

Starting small is key. Incremental improvements, supported by ongoing learning, helps to evolve from simple practices to sophisticated systems. This approach emphasizes the importance of starting where you are, with what you have, and understanding that perfection is not a prerequisite for progress.

Quality and diversity of data over volume

The true power of AI isn't unlocked by the sheer volume of data but by its quality and diversity. Educational institutions generate a variety of data types, including academic records, multimedia, and behavioral metrics, that when integrated, drive personalized learning and operational efficiencies.

Big data is more than just large datasets—it's about rich, varied, and comprehensive data that fuels advanced models. For example, while LLMs require vast resources, SLMs offer a practical, efficient AI entry point for smaller institutions or those with limited resources without overhauling existing systems.

A unified approach to AI integration

Breaking down data silos and prioritizing quality over quantity unlocks AI's potential. Institutions don't need perfect systems to begin—incremental progress matters. Platforms like Microsoft Azure simplify data unification, enabling AI-powered insights for personalized learning and operational flexibility.

With a unified approach, AI transforms data from a static resource into a dynamic decision-making tool, creating a future where technology and strategy work hand in hand to meet the evolving needs of students and educators.

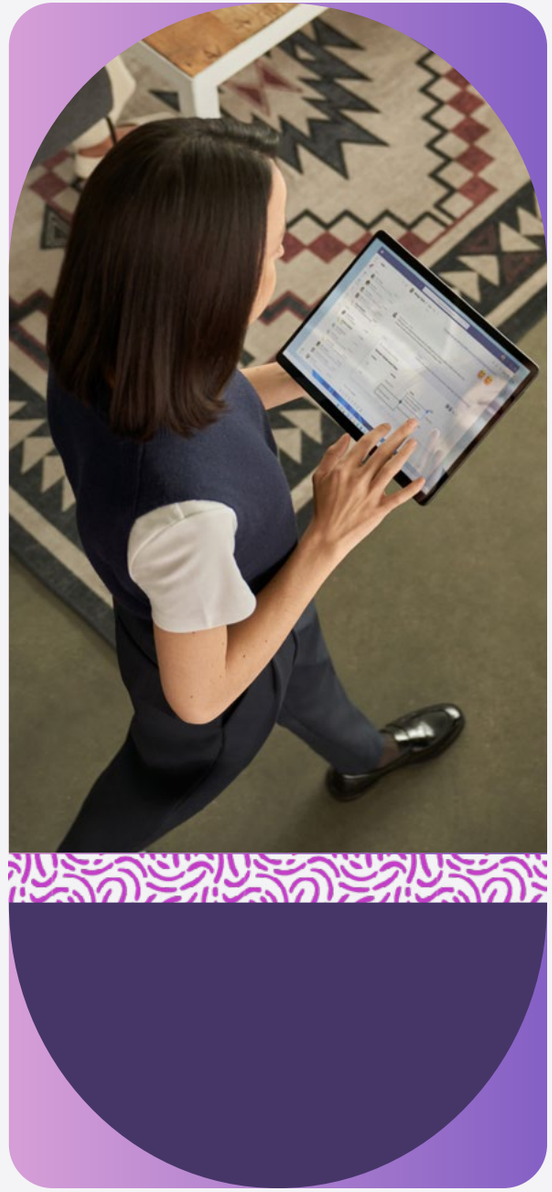
Information lifecycle and governance in the age of AI and storage limits

Weak information governance exposes organizations to risk and undermines generative AI adoption. In this recorded webinar, hear from Gartner analyst, Max Goss, and Microsoft on how this impacts education institutions. This discussion provides practical guidance on how to more effectively manage the information lifecycle to meet new storage parameters and prepare for the future of AI.

Watch recorded discussion

Microsoft Elevate

Microsoft Elevate democratizes AI innovation in education, nonprofits, NGOs, and government with $4 billion pledged over five years to credential 20 million learners in two years. Through partnerships, it delivers innovative solutions, skills empowerment, and insights and advocacy ensuring AI reflects and serves human needs.



AI and the future of work

AI is reshaping the future of work, requiring a mix of technical skills and durable skills like critical thinking and emotional intelligence.

Reports highlight the urgency of updating skills frameworks to prepare workers for a technology-driven environment. Traditional curricula must shift toward dynamic, personalized learning that builds AI-era skills such as metacognition, curiosity, and prompt design for effective content creation and information retrieval.

Strategic planning is critical to integrating AI and future skills into education. This includes collaborating with technology partners, fostering innovation, and promoting adaptability. As generative AI enables rapid content creation and retrieval, the focus of education must focus on analysis and integration rather than production.

It's important to acknowledge that generative AI is not infallible and may produce inaccuracies. Students and educators need skills in prioritization, delegation, proofreading, and efficiency to navigate AI-powered environments.

Worklab

Explore the future of work with WorkLab—a Microsoft platform offering expert insights, reports, and podcasts on how AI is transforming workplaces.

Explore Microsoft Research

Transformative workplace skills

Understanding how AI impacts workplaces and education is critical to preparing students and your community for adopting AI. As a fundamental component of the fourth industrial revolution, AI—along with related fields such as machine learning and data analytics—is reshaping workplace skills and experiences.[1] Medical research, business operations, and sustainable energy are driving rapid innovation. For instance, Walmart uses AI to streamline inventory management.[2] They also partnered with Bentonville Schools to provide AI learning experiences.[3]

To address evolving workplace needs, many schools and institutions have implemented a multi-tiered approach. This includes the recent introduction of a K–12 vertical program that integrates AI principles into every grade level and subject area.[4] Nationwide, billions of dollars have been invested in AI initiatives, including faculty recruitment, building construction, and new programs.[5]

In early 2023, the University of Buffalo launched the National AI Institute for Exceptional Education.[6] Their initial projects include the AI Screener, which identifies each student's needs, and the AI Orchestrator, which assists speech and language pathologists in creating personalized interventions.

AI-driven innovations that personalize learning start with data and security readiness

Generative AI presents new opportunities in education, and institutions must prioritize secure, accessible data to unlock its potential. AI success begins with managed data and leads to enhanced operational efficiency, improved learning outcomes, and safeguarded information. Microsoft provides trusted solutions that help personalize education, streamline operations, and ensure security—supporting inclusive, future-ready institutions.

Streamline data management for operational efficiency

Use Microsoft Fabric and Azure Synapse Analytics to unify data from various sources, eliminate silos and improve operational efficiency.

Ensure data security and compliance

Protect sensitive data with Microsoft Purview, Microsoft Defender, Microsoft Entra, and Microsoft Intune, ensuring compliance with data privacy regulations.

Prepare data for personalized learning

Use Microsoft 365 Copilot and Azure Machine Learning to support the analysis of student performance data and create personalized learning experiences.

Build an AI-ready culture

Cultivate a culture of responsible AI practices and data literacy with user-friendly tools and educational resources like Microsoft Learn.

Agentic AI

Agentic AI is transforming how institutions deliver learning, streamline operations, and empower decision-making. But to realize its full potential, you need a secure, scalable foundation.

Design agents easily with Copilot Studio for rapid, no-code solutions, or customize advanced agentic AI experiences using Azure AI Foundry Agent Service for complex, domain-specific needs. Tools like Microsoft Fabric, Entra Agent ID, and Purview provide a unified, secure, and innovative platform for deploying agentic AI in education.

Achieve institutional goals with agentic AI

By building on Microsoft's agentic AI capabilities and a unified data foundation, your institution can unlock opportunities to:

- Drive institutional strategy with intelligent insights
- Streamline administrative workflows
- Accelerate research breakthroughs
- Govern and protect data seamlessly
- Engage learners and alumni at every stage

These capabilities are already being realized in higher education. The University of Leicester used Copilot Studio to develop a digital coach and AI-powered agent that provides instant access to key university information resulting in reduced staff workload and students getting the support they need, whenever they need it. This is a practical example of agentic AI in action where digital agents automate support and streamline university operations.

AI implementation in 5 steps

1 Exploration and planning

"Practical steps for education leaders", on page 46

"Engage your community", on page 48

"Define your goals", on page 52

Identify educational goals AI can enhance.

2 Data and infrastructure prep

"Strengthen governance and policies", on page 57

"Break down your data silos", on page 58

"Implement security", on page 60

Protect sensitive data for students and faculty in AI deployment.

3 Pilot implementation

"Professional learning", on page 71

Offer training on integrating AI tools into workflows.

Run a pilot

4 Scale and optimize

Introduce AI-driven administration

Introduce tools such as Microsoft 365 Copilot Chat

Gather feedback

5 Evaluate and review

Assess impact

Monitor and analyze AI's influence on your goals and objectives.

Iterate based on results

Creating AI-powered experiences

Get started for free

- Microsoft 365 Copilot Chat[1]
- GitHub Copilot[2]
- Learning Accelerators
- Microsoft Teams for Education
- Minecraft Education AI Foundations
- Khanmigo for Teachers[3]

Enhance experiences

- Microsoft 365 Copilot[4]
- Security Copilot
- Copilot in Dynamics 365
- Copilot in Power Automate

Build your own

- Microsoft Copilot Studio
- Microsoft Azure AI Foundry
- Azure OpenAI in Foundry Models

1 Available at no additional cost with enterprise data protection for educators, staff, and students 13 and older.
2 GitHub Copilot is free for verified educators and students 13 and older.
3 Khanmigo for Teachers is free for educators in over 40 countries due to a partnership with Microsoft.
4 Available for educators, staff, and students 13 and older.

Measure the impact of AI in your school

The Microsoft 365 Copilot Evaluation Toolkit, developed with Digital Promise, helps education leaders assess their Copilot implementation and impact. Use the customizable survey and conversation matrix to gather insights and guide data-driven decisions.

Get to know the Microsoft AI tools

Copilot Chat

A more secure AI-powered chat for the web with enterprise data protection at no additional cost.

AI chat for the web with enterprise data protection

Learn more about Copilot Chat

Microsoft 365 Copilot

A productivity tool that integrates AI-powered assistance into the apps schools use daily—Word, PowerPoint, Outlook, Excel, and Teams.

Works alongside you in the applications you use every day

Learn more about Copilot

Copilot experience in Windows

An AI assistant in Windows 11 that can help you with various tasks, such as changing settings, organizing windows, getting answers, and generating images.

A powerful combination of AI and productivity

Learn more about Copilot experiences in Windows

Security Copilot

A security-focused generative AI solution enhancing defense efficiency and capabilities. Using natural language assistive experience in various scenarios, including incident response, threat hunting, intelligence gathering, and posture management.

Defend at machine speed with Microsoft Security Copilot

Learn more about Security Copilot

Copilot for Dynamics 365

A tool that helps organizations automate tasks, analyze data, and give suggestions to improve school performance and student outcomes.

Turbocharge your staff with a copilot for every job role

Learn more about Copilot in Dynamics 365

Copilot in Power Platform

A tool that helps educational users create and customize apps, workflows, and chatbots for their schools.

Imagine it, describe it, and Power Platform builds it

Learn more about Copilot in Power Platform

GitHub Copilot

A coding assistant that helps you write code faster and smarter by generating suggestions based on your context and description.

Increase developer productivity to accelerate innovation

Learn more about GitHub Copilot

Copilot Studio

A low-code AI development platform that enables users to build, customize, and deploy their own copilots using natural language, with integrations across Microsoft 365, Teams, Power Platform, and other services.

Build the copilots you need, tailored to the way you work.

Learn more about Copilot Studio

Maximizing your AI experience

Transitioning to Windows 11 or upgrading to Copilot+ PCs creates opportunities to enhance teaching and learning with AI.

Copilot+ PCs

Copilot+ PCs are the fastest, most intelligent, and most secure Windows PCs ever built. Designed with future-proofing in mind, they feature advanced NPUs (neural processing units) capable of performing over 40 trillion operations per second, these PCs are optimized for the evolving demands of AI-powered tasks and ready for the future of computing.

They offer innovative experiences to enhance productivity and creativity, like Live Captions, which translates 44 languages into English, and CoCreate, which transforms your sketches into polished designs. Improved Window Search understands descriptions to help you find what you need faster. Built with intelligent features to boost productivity while maintaining the highest levels of security, Copilot+ PCs redefine the Windows experience.

Enhancing security with Windows 11

Windows 11 offers cutting-edge security features such as Secure Boot and TPM 2.0, which safeguard sensitive data and protect devices from cyber threats. Quick Machine Recovery allows IT administrators to deploy targeted fixes through Windows Update—even on PCs that will not boot—without requiring physical access. Designed for performance, these features reduce system downtime, allowing educators to focus on teaching while IT teams streamline device management.

Understand the differences between Copilot Chat and Copilot

What's the difference?

Copilot Chat and Copilot offer unique features for your organization. While both use generative AI, Copilot integrates deeply with your institution's data to personalize workflows, whereas Copilot Chat relies on web-based data for broader AI interactions. Here's a comparison of the key differences.

- ▲ **Included with full organizational context**
- ○ **Included — Metered**
- ♦ **Included — Content-aware (limited to open file/email)**

Category	Key Features	Copilot Chat (Free + Metered)	Copilot (Paid)
Chat	Grounded in the web (powered by GPT-5)	▲	▲
	Grounded in work data (Graph, 3rd party via Copilot connectors)		▲
	Use Copilot Pages to convert AI outputs into durable, collaborative content	▲	▲
	File upload and image generation	▲	▲
	Code Interpreter	▲	▲
	Enterprise Data Protection (EDP): Help security, governance, and other policies stay intact	▲	▲
	Generate images, infographics, posters, banners, stories, and documents	▲	▲
Agent	Create agents using Copilot Studio, including SharePoint agents	○	▲
	Discover Microsoft, partner, and custom agents in the Agent Store	▲	▲
	Use agents grounded in Web data	▲	▲
	Use agents grounded in work data (SharePoint, Graph, 3rd party via connectors)	○	▲
	Agent automation with autonomous actions on behalf of users	○	○
Personal Assistant	Copilot in Word (draft, rewrite, and summarize)	♦	▲
	Copilot in Excel (Python, formulas, and visualizations)	♦	▲
	Copilot in PowerPoint (create and design presentations)	♦	▲
	Copilot in Outlook (summarize, draft, and prioritize)	♦	▲
	Copilot in OneNote (organize and summarize notes)	♦	▲
	Copilot in Teams (Meetings and Meeting Recap)		▲

Copilot tools for IT leaders

IT leaders play a pivotal role in maintaining infrastructure assets, establishing cybersecurity protocols, protecting private data, and supporting community members with technical assistance. Copilot tools provide ways to simplify and streamline these challenging responsibilities in schools and higher education institutions.

Copilot Chat

Increase productivity and save time performing common IT duties to:

- Update Acceptable Use Policies (AUP).
- Create FAQs for adopted technologies.
- Draft step-by-step tutorials.

Copilot

Complete specialized tasks that use Microsoft 365 apps and files to:

- Analyze device inventory spreadsheets.
- Translate ticket languages.
- Summarize IT candidate resumes.

Security Copilot

Respond to external threats and evaluate risks using natural language queries and prompts designed to:

- Assess incident impact.
- Develop remediation plans.
- Analyze vulnerabilities.

Copilot prompt

Open your institution's Acceptable Use Policy (AUP) in the Edge browser. Open Copilot sidebar from the top right and enter this prompt:

Please review the Information Technology Acceptable Use Policy on the page for potential improvements. Specifically, look for any outdated information, areas in need of clarification, inconsistencies in language, and suggestions for enhancing user understanding. Check for the inclusion of the last update date, ensure accessibility considerations, and provide insights on the scope, monitoring procedures, and contact information. Additionally, analyze the clarity of prohibitions, suggest examples where helpful, and assess the completeness of related sections such as exceptions and definitions. Your feedback should help identify any potential revisions to improve the overall effectiveness, clarity, and user-friendliness of the policy.

Copilot tools for education leaders

Education leaders shape and enact policies, make data-based decisions, monitor achievement, implement curricula, and oversee faculty development. Copilot tools help accomplish many of these time-consuming tasks.

Copilot Chat

Increase productivity when completing administrative duties to:

- Research and compare curricula.
- Outline an agenda for professional learning.
- Summarize online articles or PDFs.

Copilot

Use Microsoft 365 apps and files to complete specialized tasks to:

- Summarize internal state reports.
- Auto-draft messages to faculty.
- Create visualizations from spreadsheets.

Copilot tools for educators

Educators spend the bulk of their working hours writing lesson plans, assessing understanding, facilitating classroom activities, and completing administrative duties. Copilot tools make common educator tasks more manageable and efficient.

Copilot Chat

Increase productivity and save time completing duties to:

- Create a course syllabus.
- Write a lesson plan that differentiates instruction.
- Level text for emergent readers.

Copilot

Use Microsoft 365 apps and files to accomplish specialized tasks to:

- Recap Teams meetings for absent students.
- Auto-draft emails for families.
- Create a rubric from a lesson document.

GitHub Copilot

Deploy an AI-powered coding assistant that supports computer science instruction to:

- Provide students with just-in-time coding support.
- Debug complicated programs and refactor code.
- Help students document change logs.

Copilot prompt

You are an AI with expertise in physics. Your task is to provide five diverse analogies that can help explain Bernoulli's Principle to high school students preparing for their state exams. The analogies should be simple, concise, and cater to a range of student interests and experiences. Remember, your goal is to aid their understanding of the principle, not to introduce more complexity.

AI for students

Equipping students with the knowledge and tools needed to safely interact with AI products in the classroom prepares them for the real-world challenges and future workplaces. Recent research, sponsored by Microsoft, reveals significant insights into the widespread adoption of AI in schools. Explore the key findings.

- 35% of students use AI to summarize information, the highest usage for students.
- Microsoft Research and Harsh Kumar of the University of Toronto discovered that AI-generated explanations enhanced learning compared to solely viewing correct answers.
- Harvard University and Yale University professors found that AI chatbots can give students in large classes an experience that approximates an ideal one-to-one relationship between educator and student.

Use AI-powered tools

Using their school-issued Microsoft accounts, students have access to select Microsoft AI tools. This commitment to accessibility and equity ensures that all students, regardless of background or financial means, can leverage cutting-edge technology to enhance their educational journey.

AI tools	Students 13+
Copilot Chat Available at no additional cost with Microsoft 365 Education licenses which includes enterprise data protection for educators, staff, and students 13+	Yes
Copilot Per user add-on for a complete AI assistant	Yes
GitHub Copilot Free for verified educators and students 13+	Yes
Learning Accelerators Available at no additional cost for all educators, staff, and students	Yes

When students use Copilot Chat or Copilot, they immediately gain access to an on-demand AI assistant that can help provide contextualized explanations of challenging concepts, brainstorm creative project ideas, and offer instant feedback on assignments with enterprise data protection. This means your data is secure and private, your existing Microsoft 365 access controls and policies apply, you're guarded against AI security and copyright risks, and your data isn't used to train foundation models.

Microsoft supports student AI skilling with Hour of AI

Microsoft is partnering with Code.org to support the Hour of AI program, building on the successful Hour of Code initiative. Launching in the fall of 2025, Hour of AI helps learners and educators explore AI concepts through easy-to-follow, hands-on lessons and activities.

The program ensures students and educators have access to the tools and instructional content needed to become creators, all while having fun.

Get started by exploring the Minecraft Education: Generation AI lesson.

Support AI literacy

Minecraft Education

Minecraft Education offers a set of accessible, engaging materials to build AI literacy. Explore these experiences to get started.

Experience	Age
Fantastic Fairgrounds Explore AI concepts through a wondrous world, practicing skills to understand, evaluate, and use AI.	Ages 8-18
Hour of Code: Generation AI Build problem-solving, creativity, and computational thinking skills while learning AI and coding basics in MakeCode Blocks or Python.	All ages
AI for Earth Use AI in real-world scenarios like wildlife preservation, climate research, and aiding remote communities.	Ages 8-18
AI Foundations program Learn the basics of AI literacy in a series of animated videos and real-world scenarios.	Ages 8-14
AI Adventurers Learn the basics of how AI works, and how it helps us solve problems in this animated video series.	Ages 6-13
Reed smart: AI detective Investigate deepfakes and AI-generated content, and build AI information literacy skills that help learners thoughtfully examine online information.	Ages 8-18

Classroom AI Toolkit

The Classroom toolkit: Unlocking generative AI safely and responsibly combines engaging narratives with instructional content to create an immersive and learning experience for educators and students aged 13-15 years.

Educators can use the toolkit to spark discussions on responsible AI use. Through these lessons, students gain valuable insights and practical skills to enhance their digital safety.

Tips for using AI responsibly

These simple tips can help your students successfully use Copilot Chat and other generative AI tools. Consider creating a school usage policy or classroom agreement to establish rules for safe and responsible use.

- **AI as an assistant:** Think of generative AI tools as your helpful assistants. They follow your commands and perform tasks well, but it's up to you to use them wisely and responsibly.
- **AI is not perfect:** While AI tools can do a lot of things well, these tools can make mistakes because they are trained to always provide an answer. This makes it important to stay alert.
- **Always fact-check:** Make fact-checking a habit. Do not blindly trust AI-generated information—always verify it with trusted sources to be sure.
- **Beware of bias:** Generative AI models can sometimes show bias in their responses. Always ensure you review the outputs with a critical eye and be proactive by adjusting the prompts as necessary.
- **Always cite your sources:** Ensure that you give credit where it is due by always citing work that has been completed with the support of generative AI.
- **Protect your information:** Don't share private information with untrusted websites or apps and read privacy policies to understand how your data is used. Don’t forget you can use AI tools to summarize complex documents, but always remember to fact-check and verify!
- **Mind your wellbeing:** Communicating with an AI tool that can appear to converse naturally with you can be very tricky. Establish healthy boundaries with technology by limiting screen time and spending time with the important people in your life.

Learning Accelerators

Learning Accelerators offer AI-powered support to help students enhance their literacy, math, social-emotional, speaking, and information literacy skills. Tools like Reading Coach and Search Coach provide personalized coaching, immediate feedback, and practical exercises. When used alongside direct instruction and guidance from educators, these tools help primary and secondary students develop essential skills.

Reading Progress

Tracks student reading skills and provides educators with actionable insights for targeted improvement areas.

Reading Coach

Offers AI-powered, personalized reading fluency practice, enabling learners to co-create stories and practice challenging words.

Math Progress

Aids educators in creating practice questions and analyzing students' challenges, facilitating personalized feedback and support.

Math Coach

Enhances math learning with real-time feedback and personalized practice for students.

Reflect

Encourages students to identify and express emotions and provides educators with insights to offer support.

Search Progress

Enables educators to guide students' information literacy skills by monitoring their search activity and query quality.

Search Coach

Fosters information literacy by coaching students to develop effective search queries and identify reliable resources.

Speaker Progress

Provides data-driven insights on students' speaking skills.

Speaker Coach

Offers real-time feedback on public speaking elements within PowerPoint and Teams.

Education Insights

Integrates data across Learning Accelerators to equip educators with a comprehensive view of each student's academic journey.

Microsoft Elevate: Bringing the power of AI to every person, school, and community

Microsoft Elevate

Microsoft Elevate demonstrates our commitment to ensure that people are at the center of AI innovation. As AI reshapes how we work, live, and learn, Microsoft Elevate brings together our solutions, skills, research, and philanthropic investments to empower education, nonprofit, and workforce partners with AI capabilities. With over $4 billion pledged in cash and technology over five years, and a commitment to credential 20 million learners in the next two years, Microsoft Elevate supports K–12 schools, community colleges, nonprofits, NGO/IGOs, and government agencies that drive the AI economy.

Learn more at www.microsoft.com/elevate

Our three-pillar strategy

Microsoft Elevate addresses fundamental questions about AI's role in society: how do we build technology that helps people thrive, preserves the dignity and meaning of work, and enhances rather than diminishes human judgment, empathy, and creativity? By partnering with educators, labor unions, community leaders, and policymakers, Microsoft Elevate helps ensure AI development reflects human values and serves human needs.

1. **Innovative solutions**

Providing AI and cloud technology to nonprofits and schools to support their missions, students, and communities.

2. **Skills empowerment**

Delivering inclusive AI education at scale through partnerships with education, government, and workforce organizations.

3. **Insights and advocacy**

Equipping leaders and policymakers with research and insights for informed decisions about education and workforce development.

Building on Microsoft's 50-year record of democratizing technology, we bring together existing partnerships with 100,000+ educational institutions across 190 countries, established programs already training 10M+ people annually, and strategic alliances with Code.org, the American Federation of Teachers, the AFL-CIO, and governments worldwide. This unified support structure consolidates technology donations for schools, community college partnerships, nonprofit assistance, workforce development programs, and public policy advocacy into a single, coordinated initiative.

Microsoft Elevate addresses fundamental questions about AI's role in society: how do we build technology that helps people thrive, preserves the dignity and meaning of work, and enhances rather than diminishes human judgment, empathy, and creativity? By partnering with educators, labor unions, community leaders, and policymakers, Microsoft Elevate ensures AI development reflects human values and serves human needs.

Get started at
Microsoft.com/elevate

Checklist

Use this checklist to get started on your AI journey. Take the first steps towards AI adoption in your organization:

- ☐ **Form an AI leadership committee:** Identify key stakeholders across IT, academic affairs, student services, and faculty to guide institutional AI adoption.
- ☐ **Assess infrastructure and policy readiness:** Review current data management capabilities and update Academic Integrity, Acceptable Use, and Data Privacy policies for generative AI.
- ☐ **Start with Copilot Chat:** Use school-issued Microsoft accounts to explore AI capabilities and practice the Goal-Context-Source-Expectations prompting framework.
- ☐ **Evaluate tool options:** Compare free vs. paid Microsoft AI tools (Copilot Chat vs. Microsoft 365 Copilot) to match institutional needs and budget.
- ☐ **Review AI Snapshots and Learning Accelerators:** Identify role-specific use cases and explore student support tools for immediate implementation.

Section 2

AI Navigators

A global collection of best practices

In this section

Education AI Navigators Overview

Microsoft is excited to share the stories of institutions leading the way with research, experimentation, and deployment of AI solutions in education. These AI Navigators span various countries and educational settings.

Common themes

Student success

Advance student success with AI-powered tools that support learning at every stage. With 24/7 AI tutors, automated formative assessments, and instant feedback, institutions can personalize learning for every student. Microsoft helps institutions prepare students through skills-based learning pathways and industry-recognized certifications.

Institutional innovation

Drive institutional innovation, streamline operations, and improve efficiency with AI-powered insights and automation. Modernizing infrastructure not only boosts productivity but also enhances security and sparks innovation. Microsoft AI solutions help institutions streamline workloads, improve faculty and staff experiences, and maximize investments.

Simplify and secure IT

Simplify and secure IT management with AI-powered protection. A unified, integrated tech stack simplifies operations, reduces incidents, and safeguards learning environments. Microsoft Security solutions support compliance with global privacy standards and help institutions scale security operations while training the next generation of cyber professionals.

Chart your AI roadmap through real-world stories

Use these institutions' stories to assess your organization's AI readiness, acquire the necessary technology, and take the first steps toward building your own AI skills using their implementations as your guide. Check out these customer stories videos to explore even more ways education institutions are using AI.

Discover a global community of innovative educators

The Microsoft Showcase Schools program empowers school leaders with opportunities to engage with Microsoft, local partners, and school leaders around the world.

The Microsoft Innovative Educator Expert program recognizes visionary educators who integrate technology into instruction and inspire students through creative learning experiences.

Student Success AI Navigators

Index

Included in this section:

The Education University of Hong Kong Jockey Club Primary School

A primary school reimagined teaching and learning with GenAI chatbots using Microsoft Azure OpenAI.

Microsoft Showcase School

Student success

The Education University of Hong Kong Jockey Club Primary School (EdUJCPS) developed chatbots using Microsoft Azure OpenAI Service to create a more engaging, personalized, and secure learning environment. This enabled educators to focus on instructional strategy, using AI to provide real-time feedback and tailored learning experiences. EdUJCPS hopes to foster creativity through exploration, scientific inquiry and continuous dialogue, helping students develop AI literacy skills and critical thinking.

Early results show promising outcomes. Approximately 65% of students found the math recommendations from EdUJCPS' chatbot useful, and 60% appreciated the quicker feedback on their homework. Educators reported that these tools streamlined classroom management and identified areas of improvement for more personalized instruction. EdUJCPS plans to expand the use of AI across all grades, building on the early successes.

Guiding questions

- How do your current needs align to the driving forces behind EdUJCPS's AI story? What questions does this AI story raise?
- What are the advantages of building your own custom AI applications?
- What training and support might you need to put in place to maximize the impact of AI tools for teaching and learning?

"By adopting a whole-school approach and providing trainings to staff and students, we aim to foster an AI-powered learning setting... AI will take care of the practical tasks...empower[ing] teachers to better meet students' needs, enhancing teaching quality, and resulting in a more impactful educational experience."

— Philip K Y Law
Vice Principal of EdUJCPS

Azure OpenAI Service

Learn more

Microsoft turbocharges the learning potential of Hong Kong primary school students with Azure OpenAI Service

New York Public Schools

A custom AI-powered teaching assistant multiplies educator effectiveness while reducing burn-out.

Student Success

As the largest public school system in the world with more than 1 million students and 1,700 schools, many New York Public School educators and district staff reported feeling overworked and overwhelmed. The district needed a solution that could help reduce the workload while meeting the individual needs of students and families.

District IT leaders partnered with Microsoft to create a data hub of close to 2 billion records, forming the foundation for a custom-built AI teaching assistant and family communication tool with Azure AI Foundry. Educators used the AI assistant to scaffold feedback and help students discover answers on their own, multiplying their ability to be several places at once.

Guiding questions

- How do your current needs align to the driving forces behind NYC's story? Is this implementation model a good fit?
- What are the advantages of building your own custom AI application?
- What district-level data management solutions must be in place before taking the first steps toward building an AI chatbot?

"Our mission is for students to graduate on a pathway to a rewarding career and long-term economic security, equipped to be a positive force for change. If we are not using AI in education, we're putting our students at risk of being behind."

—Tara Carrozza
NYC Director of Digital Learning Initiatives

Azure OpenAI Service

Learn more

'Technology is not something we can hide from students': How NYC Public Schools invited AI into its classrooms

California State University, San Marcos

University leaders use Dynamics 365 and the power of AI to establish a personalized connection with every student.

Student Success

As a university with many first-generation students, California State University, San Marcos (CSUSM) wanted to increase graduation rates and empower social mobility for its diverse population. To do this, they knew they had to find a way to connect with each student, personalize their college experience, and meet their individual needs.

CSUSM used Dynamics 365 Customer Insights "journeys" to tailor the faculty's communications for each student—both digitally and in person—while responding to students' unique interactions and preferences. Dynamics also transformed the school's systems, which were fragmented and siloed, and consolidated their data. University leaders used AI-powered insights to individualize communications and points of interest for every student, resulting in greater attendance and engagement at school-sponsored events and support that continued beyond graduation. Body

Guiding questions

- How do your current needs align to the driving forces behind CSUSM's story? Is this implementation model a good fit?
- What are the advantages of seeking insights into your students' communication preferences?
- Would this model effectively streamline your current data management systems?

"Universities can be complicated for any student, but it can be especially challenging for first-generation students. It's important to know where each of our students are in their lifecycle journeys. To do that, we needed AI technologies that are flexible and can grow with the university."

— **Tony Chung**
Chief Information Officer
CSUSM

Dynamics 365

Learn more

CSUSM prioritizes the student lifecycle journey with Dynamics 365 Customer Insights

Watch video

Reimagine Education 2024

Tecnológico de Monterrey

An AI-powered ecosystem personalizes learning and increases administrative efficiency.

Student Success

Tecnológico de Monterrey's TECgpt, a generative AI-powered ecosystem, is one of the first of its kind in Latin America. Built on Azure OpenAI Service using OpenAI's GPT-4o, TECgpt personalizes learning to students' needs, boosts educators' creativity, and saves time on tedious tasks. With academic and administrative functions, TECgpt features tools like Skill Studio for material creation and Academic and Librarian TECbots for personalized tutoring. Some tools also streamline student service needs, such as answering questions on tuition, scholarships, and shuttle schedules, enhancing operational efficiency and improving student satisfaction.

Their goal is to integrate AI across all disciplines to foster innovation and transform learning experiences for all students, especially those in disadvantaged positions or at risk of dropping out.

Guiding questions

- How do your current needs align to the driving forces behind Tecnológico de Monterrey's AI story?
- How might building a custom AI ecosystem support your institution?
- How might you organize faculty to develop prompts and use cases that support your institution?

"With TECgpt, we have built an ecosystem of AI tools, which is trained with our own data, and that opens up a world of possibilities in education."

— Carles Abarca de Haro
VP of Digital Transformation
Tecnológico de Monterrey

Azure OpenAI Service

Learn more

Tecnológico de Monterrey creates an AI platform to personalize teaching

Watch video

TECgpt: Enhancing Education with AI at Tec de Monterrey

IU International University of Applied Sciences

An AI study buddy revolutionizes learning for students.

Student Success

IU International University of Applied Sciences is using AI to deliver personalized, scalable learning and democratize global education. Syntea, their "Synthetic Teaching" assistant powered by Azure OpenAI Service, guides students through study sessions that promote critical reflection. Since its launch, Syntea has reduced course completion times by 27% and grading bias by 44%. To further prepare students for an AI-driven future, IU partnered with Microsoft to launch the IU Copilot School, providing students with access to Microsoft 365 Copilot with Syntea integration, embedding AI across all study programs.

Looking forward, IU's developers are exploring ways to extend with Syntea using advanced AI agents. They are also using the power of AI-driven mentorship to redefine workplace learning and development by seamlessly integrating personalized upskilling and onboarding journeys directly within Microsoft Teams.

Guiding questions

- How do your current needs align to the driving forces behind IU's story?
- How might you address concerns about maintaining academic rigor and minimizing AI bias?
- What are the advantages of building your own custom AI assistant that integrates with Microsoft 365 Copilot?

"Through Syntea and Azure OpenAI Service, learning is becoming more adaptive overall, bringing students more autonomy, flexibility, and personalization. This elevates the IU learning experience to a whole new level."

— **Quintus Stierstorfer**
Director Synthetic Teaching
IU

Azure OpenAI Service

Learn more

IU revolutionizes learning for its students with the AI study buddy Syntea and Azure OpenAI Service

Auburn University

A higher education institution built a culture of innovation through the responsible use of AI.

Student Success

To enhance research and learning outcomes, Auburn University integrated Microsoft 365 Copilot Chat, Microsoft 365 Copilot, and Azure OpenAI Service into its academic framework. Auburn fosters a culture of innovation by empowering students and faculty to explore creative, AI-driven solutions across disciplines. The university also promotes AI literacy, secure and responsible usage, and collaboration to prepare their community for future advancements.

After extensive stakeholder engagement, Auburn developed a course to boost AI literacy and support learning. They offer classes and workshops on building chatbots, applying AI in business, and more. Auburn is also testing Copilot with 100 faculty members to improve efficiency, and they hosted an "AI Day" with over 400 attendees, featuring discussions on AI integration, safeguards, and future possibilities.

Guiding questions

- How do your current needs align to the driving forces behind Auburn's AI story? What does responsible use of AI mean to you for staff and students?
- How might using Copilot Chat empower your faculty and students to explore AI-driven innovation?
- How might you develop a common understanding of AI literacy across your institution? What training and support might you need to put in place to support AI literacy?

"Our goal is to democratize the value of AI. The focus extends beyond the efficiencies of AI authoring. It's about equipping our Auburn community with the ability to apply AI in creative and ethical ways, integrating it into our daily fabric as seamlessly as mobile phones have over the past decade."

— John Davidson]
Assistant Vice President and Chief Technology Officer, Auburn

Microsoft 365 Copilot Chat

Learn more

Auburn University empowers thousands of students, faculty, and staff to explore new ways of using AI with Microsoft Copilot

Watch video

Auburn University, USA (Higher Education)

Washington State Office of the Superintendent of Public Instruction

Leaders take proactive steps toward AI implementation with statewide guidance and integrated AI teaching and learning standards

Student Success

Education leaders in Washington state, led by Superintendent Chris Reykdal, are taking proactive steps when it comes to AI use in schools. Washington is among the first states in the U.S. to publish official state-level guidance on AI, including an implementation roadmap and guidelines for appropriate AI usage for both staff and students.

Driving Washington's AI roadmap is a central human-to-AI-to-human approach: "Start with human inquiry, see what AI produces, and always close with human reflection, human edits, and human understanding of what was produced." This approach is also helping drive the development of new teaching and learning standards in ELA, Science, and Math that include AI as an embedded component of the curriculum, rather than being siloed into a separate supplemental area. School leaders are confident that the new standards will provide an opportunity for all students to develop the skills they'll need to be ready for the world of work with AI.

"Our focus remains steadfast on ensuring that every student benefits from these advancements while upholding the highest standards of safety and ethical use."

— **Superintendent**
A Washington school district

Human-centered AI guidance[7]

Learn more

Superintendent Reykdal Introduces Guidance for Integration of Human-Centered AI in Washington's Public Schools

Watch video

Superintendent of Public Instruction, Washington State | Reimagine Education 2024

Department for Education, South Australia

Students are supercharging their creativity and critical thinking with AI in the classroom.

Student Success

The Department for Education, South Australia is driven by a mission to equip their students for a future where AI is everywhere. Leaders wanted to instill AI literacy and bring generative AI into classrooms, but one question loomed large—how to do it responsibly?

IT leaders relied on Azure AI Content Safety, an AI-powered platform that blocks inappropriate input queries and filters any harmful responses. This allowed them to responsibly deploy EdChat, a custom student-facing chatbot built with Azure AI Foundry that helped students develop the skills they need to thrive in the era of AI. EdChat enabled student to find quick answers before discussing more complex and nuanced questions with their teachers. Students also learned how to use AI prompts for feedback on their schoolwork, stimulating their creativity and critical thinking.

Guiding questions

- How do your current needs align to the driving forces behind South Australia's AI story? Is this implementation model a good fit?
- What are the advantages of building your own custom AI application?
- Does this model effectively address your stakeholders' biggest concerns when it comes to deploying AI safely and responsibly?

"I think that if we had buried our heads in the sand and banned AI and chatbots in schools, students would likely have continued using it at home to simply generate answers and churn out assignments. By introducing it in schools as part of learning, we're ensuring that they really understand how it can supercharge their thinking and creativity rather than replace it."

— Martin Westwell
Chief Executive of
the SA Department for Education

Azure OpenAI Service

Learn more

South Australian students are supercharging their creativity and critical thinking with AI in the classroom

Watch video

Department for Education South Australia | Reimagine Education 2024

Institutional innovation AI Navigators

Index

Included in this section:

Wichita Public Schools

Educators use Microsoft 365 Copilot Chat to make learning more accessible and bring a greater diversity of learning experiences to the classroom.

Institutional innovation

With nearly 50,000 students and over 100 different languages spoken, the amount of time and energy required of Wichita educators to individualize their lessons was becoming unsustainable. They needed a solution that could bring diverse, tailored learning experiences into the classroom—swiftly and efficiently.

As an existing Microsoft 365 Education A5 customer with Surface devices and Entra ID, the Wichita IT team seamlessly led an early adoption program of Copilot Chat. Educators used generative AI capabilities to increase their efficiency, quickly creating instructional materials that were accessible at different reading levels and in different languages. They also found that they could generate authentic, project-based learning experiences at different levels and streamline individualized student feedback on assignments.

Guiding questions

- How do your current needs align to the rationale behind Wichita's story? Is this implementation model a good fit for you?
- What are the advantages of introducing Copilot Chat to faculty and staff?
- What AI usage guidelines (privacy, data protection) must be in place before taking the technical steps toward implementation?

"There is a highly documented anxiety 'ping' that affects teachers each Sunday evening. We wonder if we are ready for the coming week and if we have time to get ready. When teachers embrace Microsoft Copilot and begin to understand the time savings it represents, I see the anxiety fade away, replaced by sighs of relief."

— **Dyane Smokorowski**
Coordinator of Digital Literacy
Wichita Public Schools

Microsoft 365 Copilot Chat

Learn more

Wichita Public Schools personalized learning for students using Microsoft Copilot

Watch video

Wichita Public Schools | Reimagine Education 2024

University of Sydney

The University of Sydney developed Cogniti, a secure AI assistant on Microsoft Azure, to enhance student learning safely and boost efficiency.

Institutional innovation

The University of Sydney recognizes the importance of generative AI in preparing students for the evolving workforce. They reviewed policies and practices to create clear guidance for appropriate AI use. To address data privacy concerns, they custom-built Cogniti, an AI assistant on the university's secure Azure platform. This ensures prompts and responses remain confidential and are not used for training AI models, safeguarding intellectual property and data privacy.

Developed by educators, Cogniti empowers them to create custom AI chatbots tailored to their instructional needs. The platform enhances student learning through personalized interactions, freeing educators' time for deeper engagement and feedback while also improving prompt writing and AI skills.

The University of Sydney plans to expand Cogniti's capabilities, explore voice interfaces, and share the platform with other institutions, setting a new benchmark for AI in education.

Guiding questions

- How can involving your educators and staff in tool design, like the University of Sydney's approach with Cogniti, address your institution's needs?
- How might enhancing personalized student interactions and providing deeper learning experiences, similar to the capabilities of Cogniti, address your institution's educational goals?
- How might using an Azure OpenAI tool like Cogniti, help free up educators time to focus on more impactful, personalized student interactions?

"[Faculty aren't] being replaced by technology; their expertise is reflected in the way that it works. Cogniti provides the framework a teacher needs... so that they can strengthen their relationships with students. We want Cogniti to be community developed: built by educators for educators."

— **Adam Bridgman**
Pro Vice Chancellor of Education Innovation, University of Sydney

Azure OpenAI Service

Learn more

The University of Sydney utilizes the power of Azure OpenAI to allow professors to create their own AI assistants

Watch video

Sydney University, Australia (Higher Education)

Eduvos

A higher education institution uses AI to automate processes for instant enrollment.

Institutional innovation

After taking over operations of 12 campuses in 2021, Eduvos faced challenges integrating their systems and achieving visibility across departments. To address these issues and support their growth, Eduvos utilized Copilot for Dynamics 365 to streamline student enrollment, manage finances, and improve overall efficiency. Since the transition to Dynamics 365, Eduvos has seen a 50 percent year-over-year growth in enrollment for two consecutive years and has cut costs associated with admissions by 90%.

Looking to the future, Eduvos plans to use AI to recognize patterns that might suggest students at risk of issues, allowing them to provide support more quickly and continue delivering quality education across Africa.

Guiding questions

- How do your current needs align to the driving forces behind Eduvo's story? What insights from data might you gain with Dynamics 365?
- What are the advantages of streamlining student enrollment using AI?
- What processes might AI enhance for your institution?

"We had to go through an 80-page document for each application that was physically signed, so that was quite tedious for our staff and students. Since we implemented more automation, our team has more time now to discuss meaningful topics with students like challenges or their future rather than just document submissions."

— **Dr. Riaan Steenberg**
Executive Director
Eduvos

Dynamics 365

Learn more

Eduvos simplifies student enrolment experience from 90 days to instant with Microsoft and Dynamics 365

Sikshana Foundation

Educators leverage generative AI to save time with customized lesson plans.

Institutional innovation

India faces challenges such as larger class sizes (average teacher-student ratio of 1:33 versus 1:23 in other countries) and educators managing multiple grades and subjects. The Sikshana Foundation aims to improve education quality by focusing on the concept of "Shiksha," a Sanskrit term encompassing instruction, lessons, learning, and the study of skills.

Understanding the time constraints faced by educators, Microsoft Research India developed the Shiksha copilot. This mobile-ready tool, powered by generative AI, assists educators in creating personalized learning experiences, assignments, and activities.[8] Importantly, it also lightens the workload for educators. The Shiksha copilot, using the Azure OpenAI Service, seamlessly integrates educator insights with curriculum requirements and learning objectives, thereby enhancing efficiency and effectiveness. It is designed to support multiple languages and various input methods, making it accessible to a diverse range of users.[9]

Guiding questions

- How do your current needs align to the driving forces behind Shiksha Foundation's story? Is this implementation model a good fit?
- What are the advantages of creating custom copilots to enhance personalization and alleviate workloads?
- What AI usage guidelines (privacy, data protection) must be in place before taking the technical steps toward implementation?

"Shiksha copilot is very easy to use when compared to other AI we have tried, because it is mapped with our own syllabus and our own curriculum."

— **Gireesh K S**
Teacher
Government High School, Jalige

Azure OpenAI Service

Learn more

India's schoolteachers are drafting better lesson plans faster, thanks to a copilot

Watch video

Shikshana Foundation | Reimagine Education 2024

Indonesia Ministry of Education and Culture

Education system uses GitHub Copilot to enhance IT team efficiency and consistency.

Institutional innovation

Indonesia's Ministry of Education, one of the world's largest school systems, serves over 50 million students. With an IT team of only 160 members Indonesia prioritizes tools that enhance efficiency and save time on tasks like generating code snippets and creating documentation. GitHub Copilot has enabled the IT team to maintain consistent code and increase productivity without needing to expand the staff.

In 2021, Indonesia launched a Reading Progress pilot program to combat low literacy rates through personalized feedback and custom passages. Two years later, the Ministry introduced Platform Merdeka Mengajar, utilizing Azure OpenAI Service to provide personalized teaching and learning, offering educators high-quality resources and tailored learning paths for students.

Guiding questions

- How do your current needs align to the driving forces behind Indonesia's Ministry of Education's story? Is this implementation model a good fit?
- What are the advantages of creating custom copilots to enhance personalization and alleviate educators' workloads?
- How might your school or institution benefit from improved efficiency and consistency from a tool like GitHub Copilot?

"With just a dozen engineers per million MAUs, maximizing the productivity of every engineer is critical for our organization. We A/B tested the usage of [GitHub] Copilot within our engineering teams, and we found a +42% uplift in development velocity. More than 85% of our engineers also stated that their work is more enjoyable with Copilot's assistance."

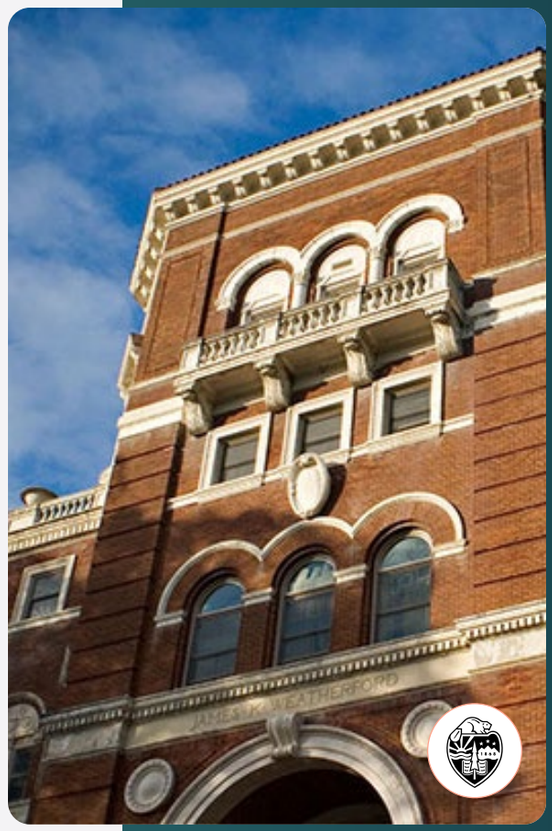
— Ibrahim Arief
CTO of Govtechedu

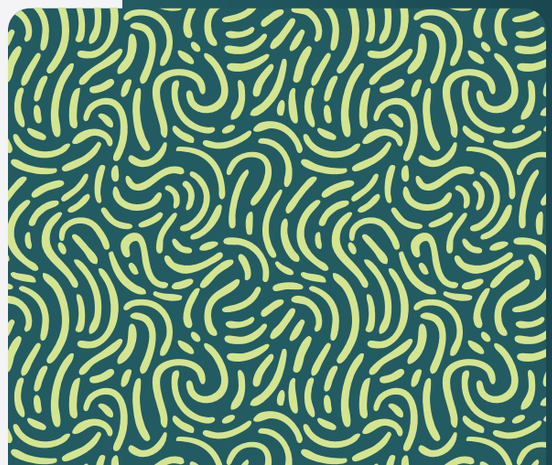
GitHub Copilot

Learn more

Technology for an Irreversible Transformation in Indonesia's Education System

Simplify and secure IT AI Navigators





Index

Included in this section:

Oregon State University

University takes protection to the next level with Microsoft Security Copilot.

Simplify and secure IT

Oregon State University (OSU) is dedicated to conducting open and collaborative research while also prioritizing the protection of sensitive data and upholding the institution's reputation. This delicate balance requires a cybersecurity approach that is both robust and responsive.

Partnering with Microsoft, OSU was able to widely implement tools such as Security Copilot, Microsoft Sentinel, and Microsoft Defender quite rapidly. These tools helped the university to use natural language to dialogue across security data to detect and respond to incidents rapidly, reducing response times from weeks to mere minutes. It redefined their approach, shifting from a time-consuming and reactive strategy to a more efficient and proactive one.

Guiding questions

- How do your current needs align to the driving forces behind OSU's story?
- What are the advantages of leveraging Security Copilot to protect your students, staff, and their data?
- Would this model effectively streamline your current cybersecurity and data management systems?

"We once had the ability to detect incidents in the timescale of weeks. Now we detect things in matter of minutes."

— **David McMorries**
Chief Information Security Officer
Oregon State University

Security Copilot

Learn more

Oregon State University protects vital research and sensitive data with Microsoft Sentinel and Microsoft Defender

Watch video

Customer Story: Oregon State University | Reimagine Education 2024

University of South Florida

Faculty and students adopt Copilot for advanced research, data management, and administrative efficiency.

Simplify and secure IT

With their IT department receiving over 100k help desk tickets per year, the University of South Florida (USF) recognized a need to simplify their IT processes. Using Azure OpenAI Service, USF was able to classify and summarize tickets, helping IT support teams respond to user queries or issues more quickly and effectively. Following this integration, the USF IT department successfully developed and launched its first AI-powered Help Desk integration in just one week. USF security engineers have also seen as much as 80% time savings with Security Copilot.

But IT wasn't their only goal. USF also wanted to alleviate the burden of repetitive, time-consuming tasks on faculty and staff. With Microsoft 365 Copilot in place, they were able to spend more time creatively solving problems, conducting critical research, establishing stronger relationships with peers and students, and using their expertise to forge new, innovative paths for USF.

Guiding questions

- How do your current needs align to the driving forces behind USF's story? What processes might you be able to simplify?
- How could AI improve efficiency in your institution's IT support?
- What repetitive tasks could AI help streamline for faculty and staff?

"While resources might remain the same, what we can do with those resources can be significantly more. The possibilities of acceleration now seem limitless."

— Sidney Fernandes
Vice President IT & CIO, USF

Azure OpenAI Service

Learn more

The University of South Florida drives innovation and acceleration with Microsoft Copilot

Watch video

University of South Florida - Helpdesk Bot | Reimagine Education 2024

Checklist

Use this checklist to learn from global institutions leading the way with AI implementation. Chart your roadmap by exploring real-world success stories and proven strategies across K-12, higher education, and government organizations:

- ☐ **Explore student-facing AI solutions:** Learn more about the Department for Education, South Australia's EdChat for responsible AI deployment and NYC Public Schools' custom AI teaching assistants built with Azure AI Foundry.
- ☐ **Plan for instructional content creation:** Discover how Wichita Public Schools used Copilot Chat to create accessible, multilingual materials at scale.
- ☐ **Study student engagement systems:** Explore CSUSM's Dynamics 365 implementation for personalized communications and Eduvos's 50% enrollment growth through AI automation.
- ☐ **Learn more about security and IT operations for AI:** Read how OSU's Security Copilot deployment reduced incident response time from weeks to minutes
- ☐ **Connect with peer networks:** Join Microsoft Showcase Schools or Innovative Educator Expert programs for ongoing learning and collaboration.

Section 3

Plan

Valuable resources to prepare AI programs

In this section

Exploration and planning

Ensuring responsible AI use in education relies on strong policies, clear guidelines, thoughtful frameworks, and effective tools. Leaders play an important role in this process; by collaborating with key stakeholders, leaders can better maximize the benefits of AI while ensuring trustworthy, responsible implementation. This section prepares leaders for successful rollout, provides ways to engage school communities, and helps define clear AI goals.

Educate leadership and stakeholders

A strong foundation for integrating AI starts with informed leadership. Helping education leaders and key stakeholders understand AI's opportunities, challenges, and responsibilities builds alignment across your institution. Use the resources and examples in the following pages to equip decision-makers, foster trust, and support community engagement.

Consider these key questions as you review frameworks and policy:

1. What goals drive your use of AI tools?
2. How does your institution currently manage technology adoption? Will that model work for AI?
3. Should you create a new AI policy or adapt existing ones?
4. How will you ensure equitable policy application of AI tool?
5. What legal considerations must you address?

Various AI frameworks, like Teach AI[10], offer sample policies and best practices for promoting transparency, safety, and respect.

Practical steps for education leaders

Translating frameworks into action is a central challenge education leaders face in AI adoption. As you navigate this evolving landscape, start with these simple steps to build organizational trust.

Step 1: Revise policies to address generative AI

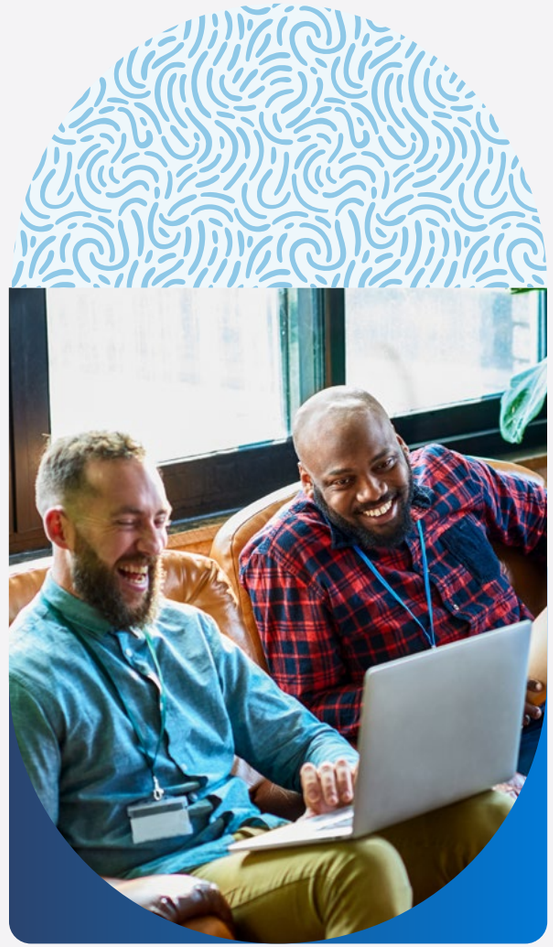
Update documents like Acceptable Use Policies to include language on AI use.
Resource: Rethinking Acceptable Use Policies in the Age of AI, *District Administration*

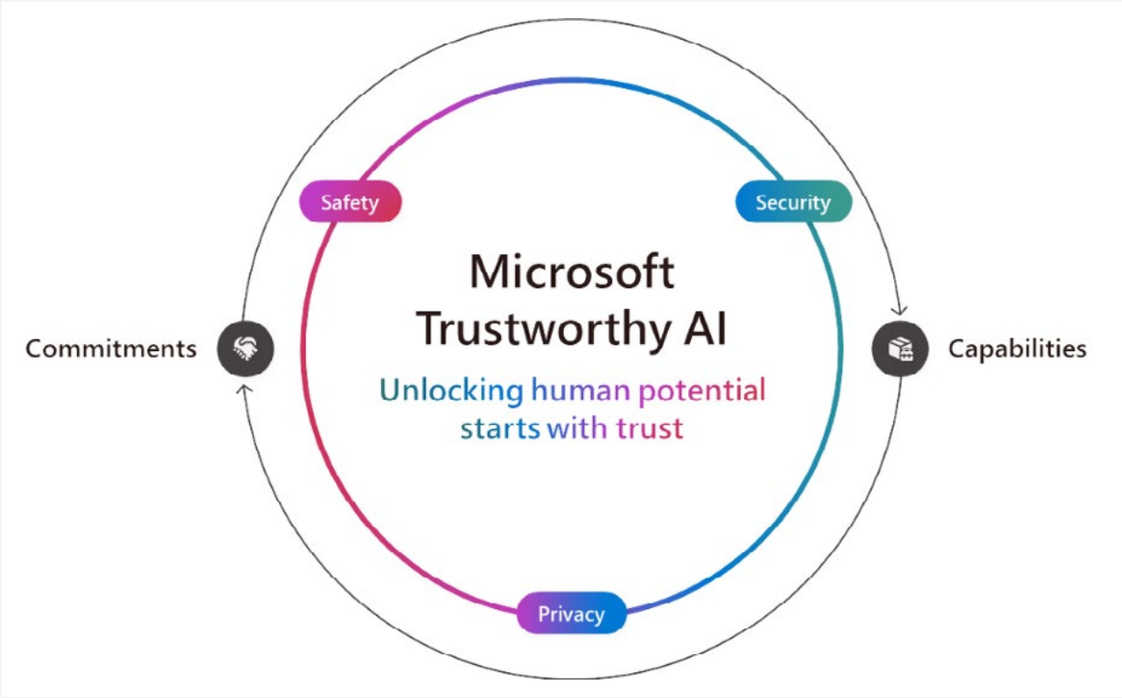
Step 2: Incorporate AI into teaching and learning

Set guidelines for the responsible use of AI in lesson planning and course creation.
Resource: Integrating Generative AI into Higher Education, *EDUCAUSE*

Step 3: Establish AI monitoring and evaluation standards

Create a plan to monitor and assess AI use across your institution.
Resource: ChatGPT and Beyond, *Common Sense Education*





Copilot prompt

Assume the role of an education institution leader such as a provost or superintendent for a medium-sized institution. Provide a list of six policies, frameworks, or guidelines (such as Acceptable Use Policies) that should be reviewed and considered for revision to allow for the use of generative AI responsibly and ethically. Additionally, describe three different types of AI use policies that could be developed by schools, universities, or ministries of higher education for reference.

Trustworthy AI for education

Microsoft runs on trust that's earned through commitments and capabilities that support AI adoption in schools. The Secure Future Initiative, privacy policies, and responsible AI principles protect people and data at every level. With built-in security, safety, and privacy protections, Microsoft provides the foundation for developing and using trustworthy generative AI solutions in education.

Microsoft aligns AI development with six responsible AI principles—fairness, reliability and safety, privacy and security, inclusiveness, transparency and accountability. Microsoft also protects privileged data through four privacy principles: You control your data, you know where your data is located and how it's used, your data is secure at rest and transit, and Microsoft defends your data.

Successfully implementing Trustworthy AI requires shared responsibility between technology providers and users—including leaders, educators, and IT professionals. This includes:

- Regularly reviewing AI applications to protect student privacy and promote fairness.
- Monitoring biases and updating policies as AI evolves.
- Crafting clear AI policies aligned to educational goals.

By leveraging Microsoft's commitments and capabilities, educational institutions foster trust, ensure accountability, and create AI environments that align with community values.

Engage your community

Implementing AI requires thoughtful planning, clear communication, and collaboration with stakeholders who have diverse responsibilities and experiences with AI. This section highlights key challenges and practical strategies to:

- Build trust and support for AI-powered tools.
- Understand and address your community's concerns.
- Align tools to your goals and needs.
- Build a shared vision with your community.

Build trust and support with stakeholders

Engaging stakeholders is essential for AI adoption. Effective approaches include:

- Seeking feedback from diverse groups.
- Aligning initiatives with shared values that prioritize student success.

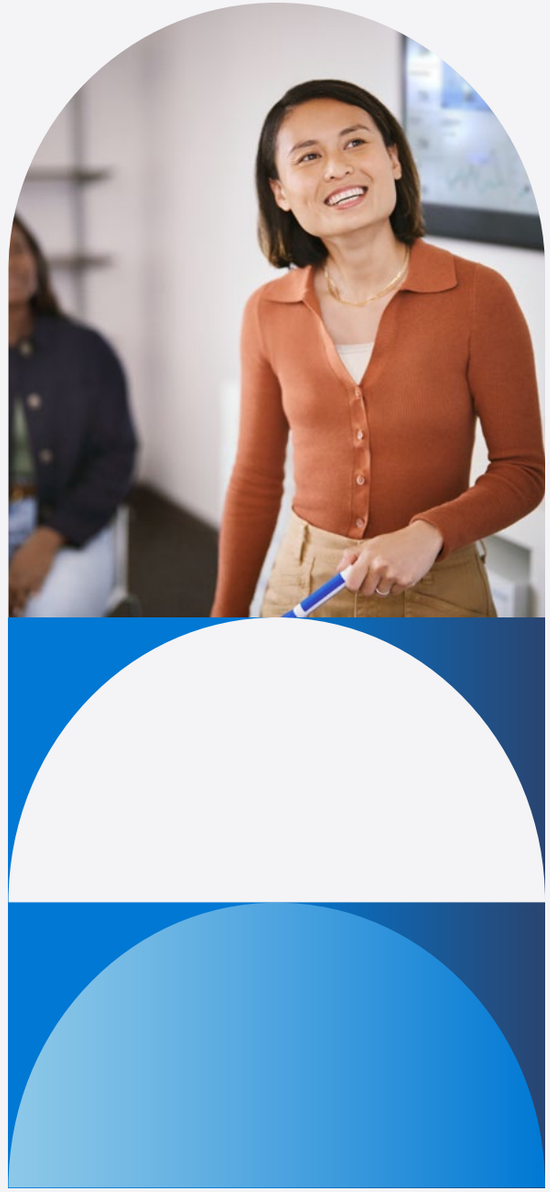
Familiarize yourself with these key points so that you can engage in meaningful discussions with community partners.

Key point: Efficiency

Responding to emails, exploring data trends, researching instructional approaches, and drafting detailed syllabi take time away from forming relationships with students. Generative AI tools give educators time back so that they can refocus on what matters most. Learn how educators in Wichita Public Schools (page 36) used Copilot Chat to become more efficient.

Key point: Accessibility

Accessibility is a key component of equitable learning experiences. Generative AI tools can help educators create high-interest text for emerging readers, develop multiple means of representation for content, and offer new ways of demonstrating ideas for students. Read about how Tecnológico de Monterrey (page 30) used Azure OpenAI Service to personalize learning and better support students.



Understand and address community concerns

As you meet with different community members, you'll encounter various concerns, interests, and needs. Use this opportunity to build empathy, demonstrate your AI expertise, and show how you'll support the entire community.

Leadership and administrators

Schools are increasingly the target of cyberattack, making data security a top priority.

"Student privacy is one of our biggest concerns. We vet any tool to ensure data protection and use security solutions in Microsoft 365 Education A3/A5 plans to identify threats, automate our response, and remediate any issues quickly."

School leaders may have concerns about equity and accessibility.

"We evaluate AI tools to support equitable access for all students and help build a fairer educational landscape, as exemplified by institutions like the University of Texas."

Educators and practitioners

Some educators hesitate to adopt new technology due to past experiences with unsupported initiatives.

"We are committed to making sure that you and your students know how to use AI tools responsibly. Our plan includes age-appropriate materials, conversation starters, and an iterative approach to AI policies. You can also refer to resources like Microsoft Learn's Educator and Student modules for self-paced learning."

Educators prioritize tools that show clear, lasting learning outcomes.

"Early research indicates that students benefit from AI-generated explanations, outperforming those who only receive correct answers.[11] To start, try using Learning Accelerators, many of which use AI, to provide immediate, personalized coaching for students."

Students and families

Families may have reservations about corporations profiting from children's data

"We prioritize your student's privacy by thoroughly examining each company's privacy policies for responsible data use."

Families rely on schools to equip their children for future aspirations and careers.

"We've integrated AI features into the tools students use daily for learning, creativity, and productivity. Additionally, we're exploring how other schools have implemented AI guardrails. These guardrails help students access school-specific chatbots designed to support their individual learning requirements."

"Integrating AI tools into our instruction is part of our commitment to preparing students for the future. Experts have highlighted AI's importance in defining the modern workplace.[12, 13] We're also exploring guardrails to support safe and effective student use."

Community

The community expects their tax dollars to be used efficiently and responsibly.

"AI-powered tools support our data analysis efforts and resource optimization, helping us direct more funding toward student learning. Whether it's adjusting bus routes, optimizing utilities, or refining staffing allocations, AI enables us to pinpoint areas for improvement."

Community members want students to graduate with solid knowledge and useful skills, but worry about the information AI gives them.

"We plan to introduce age-appropriate, custom chatbots to provide students with safe AI learning environments, inspired by successful initiatives like those in Wichita Public Schools (page 36). These chatbots will be tailored specifically for our students, ensuring that the data comes from trusted sources and aligns with our curricula, while keeping our data private so that it isn't used to train larger models."

Continue the conversation

No matter where you are in the process, you'll speak with a wide variety of stakeholders who will have important questions that need answers.

How can I protect the privacy and security of students' data when using AI-powered tools?

"We start by reviewing each AI tool's terms of service and privacy policy to ensure that they are committed to privacy and are aligned to our expectations. We know that Microsoft's generative AI solutions like Copilot, Copilot Chat, and Azure AI Foundry support FERPA compliance and student data privacy protection. They use advanced encryption and data handling policies to secure sensitive information. Microsoft's AI solutions provide access controls and transparency in data usage, undergoing regular compliance audits to maintain high standards of privacy and security. We can customize privacy settings to align with our specific compliance requirements and data governance policies."

How can I prevent academic dishonesty and plagiarism when using AI-powered tools?

"Protecting our school's academic integrity begins with all users learning how to use AI responsibly. We're starting with professional development for educators, modeling responsible use, and having open discussions. We've also paired our training with a clear policy."

How do these AI solutions accommodate language differences among students, educators, and faculty in our institution?

"Copilot, Copilot Chat, and Azure AI Foundry, are designed to support multilingual environments. They offer features like real-time translation and multilingual support across various applications in more than 100 languages. This ensures that students, educators, and faculty can engage with content in their preferred language, enhancing comprehension and participation."

How can I support students with diverse learning needs and preferences when using AI-powered tools?

"Educators can use tools like Copilot, Copilot Chat, and Learning Accelerators to personalize instructional content to meet individual student needs. With Copilot, educators can quickly adapt content into different languages or reading levels. Furthermore, they can use prompts to create custom explanations or analogies that build upon age-appropriate knowledge or a student's interests. Copilot supports multiple means of generating prompts including through text or voice and Microsoft 365 Copilot includes screen reading capabilities."

Set goals for your AI systems

AI systems perform different functions and have different capabilities. Knowing what you want the AI system to accomplish will help you find the right solutions for your institution.

Use these steps to help you identify goals to set.

1. Begin by making a hierarchical list of pain points you identified that an AI system might address.
2. Place the most urgent items at the top of the list.
3. Ask colleagues from other departments to offer input on what you identified.

After you have your list, consider rewriting the pain points into goal statements. For example:

Pain point: IT administrators struggle to prioritize threats because of the number of signals that emerge each day.

Goal statement: Any security-focused AI system should help administrators prioritize threats and give guidance on steps to take to respond appropriately.

Compare your goal statements against the capabilities of any AI systems that you are considering.

Define your goals

Establishing goals and policies for AI use creates structure and guidelines for your faculty, staff, students, and community. Before you get started, consider these practical suggestions.

Start now. Your students and staff are likely using AI already and need guidance. Create initial policies and iterate as you go.

Establish what activities need a policy and what doesn't. Focus on the largest areas of impact.

Identify key areas of need and critical questions that will guide your process.

Learn from peers and familiarize yourself with resources like the TeachAI toolkit, developed with support from Microsoft.

As your school or institution develops its AI strategy, it's natural to shift your focus to affected areas, especially policies that may need updating to address recent changes. Start by consulting government guidelines and requirements and reviewing your existing policies. Then, consider curating a set of exemplary policies that can be customized to meet your specific needs.

Institutional policy considerations

Crafting, updating, and approving new policies is a critical task. A successful policy is one that is regularly reviewed and revised to meet the current needs of the school and community.

Leadership teams can create prompts to assess existing policies and suggest areas for improvement and alternative ways to convey important guidelines. For instance, Copilot can analyze a policy, review it for potential biases, and request a simplified version in plain language.

Questions to lead your discussion

- Are your students allowed to use AI on assignments?
- What guidelines need to be in place ot ensure students know appropriate and inappropriate uses of AI on assignments?[14]
- What impact will that have on your current policies?

Policy spotlight

South Australia's Department for Education led a pilot program that introduced a custom chatbot for students to use. Their policy provides structure and guidance around how learners can responsively use generated content.[15]

Academic integrity highlight: Refining a policy

AI's impact extends beyond tool usage to community adoption and classroom integration. As student use of generative AI grows, schools must define clear academic integrity guidelines. Evaluating the effects of policies is crucial to maintaining educational standards and student success.

Use the following guidelines on plagiarism as a starting point for analyzing how to adjust your academic integrity policy for AI usage.

Initial policy

Presenting another person's work as your own is an act of dishonesty. This behavior undermines your integrity and contradicts the principles upheld by our community. We maintain the belief that academic success is contingent upon the dedication you invest in your studies.

Analysis

This policy addresses human-authored texts, but with students using AI, clear guidance on responsible AI use is essential to maintain academic integrity and prevent plagiarism.

Revised policy

Presenting another person's work or content created by a generative AI tool as your own is an act of dishonesty. This behavior undermines your integrity and contradicts the principles upheld by our community. We maintain the belief that academic success is contingent upon the dedication you invest in your studies. We expect you will approach your assignments honestly, as your work reflects your capabilities.

Analysis

This policy covers generative AI, expanding permitted uses beyond assignment copying but doesn't give guidance on appropriate uses. We recommend setting guidelines for additional AI uses like revision, formative feedback, and brainstorming.

Apply your learning

Sample policy developed with Copilot

Open your institution's academic integrity policy in the Edge browser. Open Copilot Chat and enter this prompt:

> As the CAO of a school district, analyze our existing academic integrity policy, focusing on AI's ethical use by students. Evaluate the policy's current consideration of implicit biases, linguistic, cultural, and socio-economic diversity. Suggest concrete, actionable improvements to enhance inclusivity, fairness, and clarity, ensuring the policy is understandable and accessible to all students. Provide examples of best practices from other policies and include a revised policy draft incorporating these elements.

Sample policy

At **[our school]**, we prioritize academic integrity. All students will complete their assignments with honesty, showcasing their abilities. We emphasize responsible AI usage, including thoroughly reviewing content, not just copying and pasting. To ensure fairness, we provide the following guidelines.

Attribution and AI content

- When using AI-generated content, always provide proper attribution.
- Presenting AI-generated work as your own is strictly prohibited. Faculty will set clear expectations regarding responsible AI use for their class using approved categories.
  - Highly restrictive: No AI use is allowed.
  - Fully encouraging: AI is fully available for student academic use. No restrictions.
  - Hybrid: AI use is for brainstorming and AI tutorials, but not for submitted assignments.

See AI guidance & FAQs from Harvard for more.[16]

Cultural sensitivity

- We respect diverse cultural norms related to collaboration and attribution. Students should be aware of these differences and adapt their practices accordingly.

Implicit bias awareness

- Our academic integrity process aims to be unbiased and consider individual circumstances.

Education and resources

- We offer workshops, tutorials, and online resources on citation practices and responsible AI use. Students are encouraged to learn and apply these principles.

Equitable enforcement

- Violations will be addressed consistently, regardless of socio-economic status or cultural background.
- If assignments allow or require AI use or specific tools, those tools must be readily available and provided for each student.

Analysis

This policy outlines expectations for students, emphasizing some of the ways students may use generative AI tools in their workflow. It reflects the school's dedication to fairness and outlines efforts to teach students responsible AI skills.

Additional policy considerations

After evaluating and revising your academic integrity policy, apply similar methods to other policy areas. Consider how your team can draft AI-specific policies around data protection, faculty use, syllabi notifications, and accessibility.

Data protection and privacy

Large language models (LLMs) depend on user data to produce results. Data privacy should be a core consideration when approving AI tools, and schools must clearly communicate how data is used and protected. Use these guiding questions:

- What does student privacy mean in the AI era?
- How well do our data protection and privacy policies align with legal regulations?
- How do we communicate our data usage policies to students, staff, and families? Is there an opt-out option?

Staff and faculty use

AI tools can enhance educator efficiency and personalize student content. Clear guidelines for AI usage are highly recommended. Use these guiding questions:

- How might we improve learning by using AI for instructional purposes?
- What instructional uses do we want to encourage? What might we restrict?
- How will we support our staff with professional learning?

Classroom syllabi

Consider providing a standardized statement about AI usage that educators and faculty can use in their syllabi. Use these guiding questions:

- What message should be included on all syllabi?
- How can this statement reinforce broader policies?
- To what extent can educators adapt the statement for their classes?

Accessibility and Universal Design for Learning (UDL)

AI tools have the potential to make learning more accessible for all learners. Use these guiding questions:

- What are the accessibility and language proficiency needs of our students and staff?
- How might AI tools enhance accessibility for all learners?
- What government guidelines must we follow as we evaluate AI tools and design our school's AI program?

Copilot prompt

As a superintendent or provost of a medium-sized educational institution, you are tasked with preparing your institution for the implementation of generative AI. Draft a ten-step plan for integrating generative AI in your educational institution. Focus on policy updates, implementation strategies, and evaluation methods to ensure a smooth transition.

Data and infrastructure preparation

Education leaders know that protecting data and preventing cyberattacks are essential for safe, secure, and effective learning environments. Schools, universities, and ministries of education are increasingly targeted by cybercriminals, making cybersecurity a challenging but critical feature of AI adoption.

According to Cyber Signals Issue 8:

- Education is the third-most targeted industry.
- Educational institutions face an average of 2,507 cyberattacks per week.
- Microsoft Defender for Office 365 blocked more than 15,000 emails per day targeting the education sector with malicious QR codes—including phishing, spam, and malware.

The U.S. Cybersecurity and Infrastructure Security Agency (CISA) launched a campaign to address cyberthreats impacting education, starting with the Protecting Our Future report.[17]

Schools and universities across the country are responding to this call to action by strengthening cybersecurity measures and examining AI security and privacy. Many states are adopting policies for safe AI use in K–12 school districts, with help from companies like Microsoft and government agencies. Microsoft is also working closely with higher education institutions like the University of Michigan to deploy secure AI copilots.[18]

This section of the AI Toolkit offers suggested actions to help you implement generative AI tools safely and securely. You'll also discover how Microsoft's AI systems and Microsoft 365 A3/A5 Education plans enhance your security, giving you the tools to control, protect, and manage AI in your school's infrastructure.

Evaluate data handling

AI systems use data to generate responses, sometimes requiring access to files or critical systems. For example, Microsoft 365 Copilot may summarize notes found in OneDrive, while Azure AI Foundry can connect private data sources for customization. Regardless of the AI sytem, you should follow the data privacy requirements found in the Family Educational Rights and Privacy Act (FERPA) in the U.S. and the General Data Protection Regulation (GDPR) in the EU to maintain compliance.

The following activities can help you make informed decisions about data handling.

- Form a committee that includes compliance officers, security administrators, and other leaders. Review and revise the goals you wrote, identify any data sources required by the AI system, and list any compliance requirements that must be met before implementation.
- Draft a list of data handling questions for vendors. Consider what data sources are required, how data is kept safe, and what helps you manage risk.
- Review Microsoft's enterprise data protection for Copilot and Copilot Chat which safeguards prompts and responses by the same contractual terms and security commitments that customers have long trusted for protecting their emails in Exchange and files in SharePoint.

Strengthen governance and policies

Ensuring the security and integrity of data assets is a top priority for education institutions. Data governance involves defining and implementing policies, standards, and practices for managing data quality, security, and compliance.

Use these governance strategies, along with robust security measures, to help you defend against threats and manage data more securely.

Establish data governance, roles, and responsibilities

After you have identified an AI system that's secure, compliant, and addresses a goal, begin exploring data governance for your school or institution. Keep these questions in mind.

1. Does my school or institution have the infrastructure required for AI applications to access data securely, quickly, and at scale?
2. What infrastructure and resources are available to support AI deployment?
3. Who is going to be responsible for ongoing monitoring, troubleshooting, and communication?

Develop a plan and consider roles

It's important to assess your infrastructure's readiness for secure AI use. Even if an AI system meets security requirements, your infrastructure may need to be updated or staff may require more training before deployment. A plan helps address data governance issues unique to your school or institution.

Here are some questions to consider as you develop your plan.

1. Would it be better to buy a pre-built AI system, develop AI applications in-house, or update existing AI systems?
2. Should data for AI systems be stored on-premises or in the cloud?
3. Does the data architecture we need comply with legal requirements?

In addition to assessing infrastructure capabilities, Evaluate IT administrators' ability to monitor AI systems. CISA recommends establishing an incident manager, technology manager, and a communication manager to oversee AI systems.[19]

- **The incident manager** leads AI incident response, manages communication flows, and delegates tasks, but does not perform any technical duties.
- **The technology manager** offers subject matter expertise in AI, data security, and response measures.
- **The communication manager** communicates with internal and external stakeholders about important decisions or incidents.

If no one fits these roles, consider hiring an expert. Assigning roles early helps you gather diverse perspectives and foster teamwork before AI implementation.

Break down your data silos

Breaking down data silos is essential for maximizing the potential of AI in education. Siloed data limits collaboration, insights, and the effectiveness of AI-driven solutions. A unified data strategy enhances accessibility, interoperability, and decision-making.

Use these strategies to integrate data across systems, improve AI performance, and create a more connected learning environment.

Identify outcomes and data sources for AI systems

It can be helpful to create a list of the desired outcomes you want the AI system to accomplish and what data might be required. Keep the following questions in mind.

- What are some pain points in your school or institution?
- What needs do community members have that an AI system might address?
- How does the AI system use data to generate responses?

Utilize AI tools for data governance and cloud consolidation

Migrating data to the cloud offers advantages in education. The Microsoft 365 Education A3 and A5 plans and security add-ons include applications that help monitor AI activities and data flow. Consider how your institution might utilize these tools to support a secure AI roll-out.

- Microsoft Defender for Cloud: Monitor AI system usage across cloud, multicloud, or hybrid infrastructures, understand associated risks, and approve or block access by browsing a catalog of 400+ generative AI applications.
- Microsoft Purview: Detect data security risks in Copilot through Purview's AI hub. The AI hub aggregates usage statistics and applies a risk level to over 100 of the most common AI applications. Purview also uses sensitivity label citation and inheritance for additional security with AI systems.
- Microsoft Purview eDiscovery: Identify, preserve, and collect relevant AI data and interactions litigation, investigations, audits, and inquiries.

Determine data privacy procedures and safeguards

Integrating AI in education requires careful management of both student and faculty data—including academic performance, demographics, and sensitive personal details—to safeguard the privacy of data. It's important to review internal policies and identity access protocols prior to deploying an AI system. Keep these questions in mind.

- What are the known privacy risks with the AI system?
- How is data shared, used, and stored in the AI system?
- How do people access and use the AI system?

Here are some practical tips to help you minimize data privacy concerns:

- Collect and use only the minimum data needed for the task.
- Where possible, anonymize student data to protect student identities by removing personally identifiable information (PII) or replacing it with pseudonyms.
- Conduct a privacy impact assessment to evaluate your risks.
- Review the privacy policies of all AI solutions you use.

Privacy impact assessments

Privacy impact assessments (PIA) help evaluate IT systems for privacy risks and identify mitigating options. A PIA typically includes:

- Known privacy risks.
- Options for mitigating known privacy risks.
- Instructions on how to properly handle privacy issues.
- Documentation on the flow of personal information.
- Processes for analyzing the legal compliance with privacy laws and regulations.
- Public assurances that personal information is protected.

Addressing these points when evaluating an AI system supports informed decision-making about data privacy protection.

Privacy policies

Vendors should clearly articulate how data is used, stored, and shared in AI solutions.

ou can make more informed, legal decisions about AI solutions by reviewing vendor's data privacy and security statements. For example, Microsoft publishes how data is used in each one of its AI systems.

- Copilot Chat
- Copilot experiences in Windows
- Copilot
- Security Copilot
- Azure OpenAI Service

Implement security

Implementing security is critical to protecting AI systems and sensitive data in education. Strong security measures help prevent unauthorized access, data breaches, and other cyber threats.

A comprehensive security framework reinforces data protection, ensuring confidentiality, integrity, and compliance. Use these strategies to strengthen your security posture and safeguard AI-driven systems.

Establish identity access

Enhance privacy and security with secure identity access protocols and user policies. Consult IT administrators to understand your system's capabilities.

Microsoft offers two solutions that help you set and manage access controls.

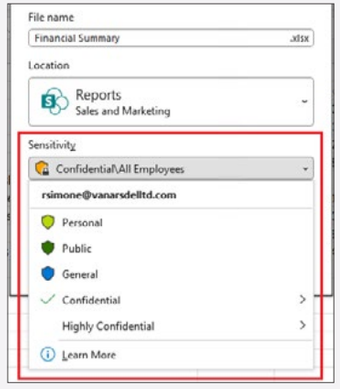
- Microsoft Entra ID: Manage access to Microsoft Copilot tools and underlying data with secure authentication procedures and risk-based adaptive policies.
- Intune for Education: Apply security, configuration, and compliance policies to devices so that school-issued endpoints have baseline protection when working with AI systems.

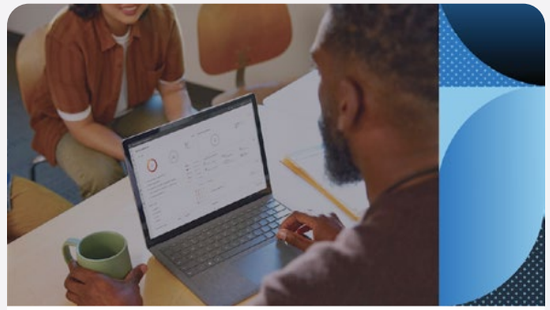
Apply sensitivity labels

Collaboration in education often extends beyond institutional domains, meaning content can move across various devices, apps, and services. It's crucial that this content remains secure and complies with your institution's policies.

Sensitivity labels from Microsoft Purview Information Protection help classify and protect data without hindering productivity or collaboration. Copilot and agents recognize and integrate sensitivity labels into user interactions to help keep labeled data protected. Keep these questions in mind.

1. What types of sensitive information need protection?
2. How will sensitivity labels be deployed and managed?
3. How will the effectiveness of sensitivity labels be monitored?





Empower students, strengthen security

Equip students to defend your institution's digital environment with the Microsoft Student Security Operations (SOC) Toolkit. This ready-to-implement resource helps facilitators launch student-led SOCs in high schools and higher education institutions through structured lessons, hands-on experiences, certification pathways, and real-world cybersecurity scenarios. Students gain workforce-ready skills while contributing to campus cybersecurity.

Develop an incident response plan

Having an incident response plan ensures that you can respond effectively when an issue arises. Incidents can occur in even the most secure infrastructure, so having a plan before you launch an AI system helps address logistics and procedures. Keep these questions in mind.

- What constitutes an incident with an AI system?
- What parts go into an incident response plan?
- Who should be notified when an incident occurs?

Defining an incident

Before creating an incident response plans you should understand what constitutes an incident. Microsoft defines an incident as a group of correlated alerts that humans or automation tools deem to be a genuine threat. Although one alert on its own might not be a major threat, the combination of alerts might indicate a possible breach.

Even secure AI systems in managed infrastructures face threats. Some common points of failure include:

- Security breaches exposing sensitive data.
- Unintentional disclosure of private information.
- Discriminatory or misleading responses.

Developing an incident response plan helps you to effectively address issues that arise. CISA recommends a 6-stage incident response plan.

1. Preparation

Document policies, assign roles, configure security systems, and educate users.

2. Detection and analysis

Establish monitoring processes and define authorized use vs. incidents.

3. Containment

Develop strategies to minimize threats.

4. Eradication and recovery

Remove incident artifacts, mitigate vulnerabilities, collect evidence, and establish backups.

5. Post-incident activity

Document incidents, strengthen security, and apply lessons learned.

6. Coordination

Identify who to notify based on threat severity.

Forming a committee with experts, including an incident manager, technology manager, or communication manager, can help create a strong plan. For more information, check out CISA's Incident Response Plan (IRP) Basics[20] or the K12 SIX Essential Cyber Incident Response Runbook v1.1.[21]

Checklist

Use this checklist to prepare your institution for responsible AI deployment. Build the foundation for secure, effective AI adoption through policy development, stakeholder engagement, and infrastructure readiness:

- ☐ **Establish AI governance and leadership:** Form a data governance committee including compliance officers, security administrators, and other leaders. Establish clear oversight roles: incident manager, technology manager, and communication manager.
- ☐ **Update policies and guidelines:** Review and update your Academic Integrity Policy to address AI-generated content and attribution. Establish clear guidelines for staff and faculty AI use, including what is encouraged and restricted.
- ☐ **Audit data and infrastructure:** Conduct a comprehensive data audit to identify silos and evaluate current management practices. Assess your infrastructure's readiness for secure AI deployment at scale.
- ☐ **Ensure regulatory compliance:** Review and ensure compliance with FERPA, GDPR, and other relevant data privacy regulations. Conduct a Privacy Impact Assessment (PIA) before deploying AI solutions.
- ☐ **Develop incident response plans:** Create an incident response plan specifically for AI-related security issues.

Section 4

Implement

Materials to help you choose the right tools and maximize AI adoption.

In this section

Implement Microsoft AI tools

Taking time to learn how to use a generative AI tool is difficult when you are managing a school district, running a technology department, or operating a university. This section provides instructions, links, and additional resources to help you begin your AI journey.

Identify your AI use case

Consider some of the responsibilities you assume in your role and how generative AI tools might help you save time or increase efficiency. Start by identifying your specific goals and challenges, then choose the tools that best align with your needs to maximize their impact. Use these examples to help guide your thinking as you explore the right solutions for your work.

Superintendent's cabinet

Use AI to support in drafting policy suggestions, analyzing trends in technology adoption, or reviewing compliance.

IT department

Use AI to streamline troubleshooting by quickly diagnosing common issues and suggesting solutions.

Ministries of Education

Use AI to assist in aggregating and analyzing performance metrics to identify areas for improvement or best practices.

Provost's office

Use AI to assist with uncovering patterns, generating actionable insights, or simplifying large datasets for decision-making.

Directors of Technology

Use AI to automate threat detection, assess risks in real-time, and flag potential vulnerabilities in your systems.

Choose the right AI tools

Deciding whether to buy, build, or modify an AI solution depends on your institution's goals, resources, timeline, and technical capacity. Microsoft's AI solutions offer flexibility and control, allowing you to combine approaches that best meet your needs. Use these questions to assess your needs, then identify the right tools for your institution.

Key considerations

- Do you need an AI solution that's ready to use or one you can fully customize?
- Will users need access to institutional documents (e.g., syllabi, research, policies)?
- Could a hybrid approach help meet different needs across your institution?

Free	Paid, low- or no-code	Paid, pro-code
• Ideal for rapid deployment. • Doesn't connect to institutional data or systems. • Built-in data protection with school or work accounts	• Quick to implement with minimal configuration. • Connects to institutional data sources for context-aware responses. • Built-in governance and security controls.	• Highly adaptable for advanced, scalable solutions. • Requires developers and system integrations. • Keeps institutional data private and secure.
Great for quick idea generation, AI exploration, and personalized learning.	Designed to accelerate institutional workflows and inform decision-making.	Built to power complex, custom AI solutions at scale specific to your needs.
Microsoft 365 Copilot Chat Learning Accelerators Khanmigo for Teachers	Microsoft 365 Copilot Copilot Studio Role-based Copilots (Service, Sales, Finance) Copilot in Power Apps Copilot for Dynamics 365 Security Copilot	Azure AI Foundry Microsoft GitHub Copilot

Copilot prompt

As an education leader, help me decide whether to buy, build, or customize an AI solution for my institution. I need help weighing factors like deployment speed, integration with institutional data, customization needs, security, and my team's technical capacity. Also, suggest if a hybrid approach (combining buy and build) might be appropriate based on these needs.

Get started with AI implementation

To get started, refer to the technical implementation guides for IT teams and leaders to help you set up your Microsoft AI tools. Whether you're configuring the tools for your institution or helping educators and faculty make the most of them, these resources will support every step of the process.

- Microsoft 365 Copilot Chat
- Microsoft 365 Copilot
- Microsoft Copilot Studio
- Security Copilot
- Azure AI Foundry
- Copilot in Dynamics 365
- GitHub Copilot

Optimize AI adoption with additional resources

Explore these additional resources to help you fully leverage Microsoft AI tools in your institution. These materials will support your ongoing efforts to adopt, scale, and optimize the use of AI across your institution.

Creating effective prompts on page 67

Professional learning on page 71

Our commitment to collaboration on page 74

Microsoft supports accessible AI on page 76

Creating effective prompts

To get the most out of generative AI you must develop strong prompting skills. Prompts are the instructions you give through the chat interface, and the more precise they are, the more useful and accurate the AI's responses will be. Like students following directions, AI tools respond best to clear, specific guidance. As AI evolves, so too will the art of prompting—making it a continuous learning process.

Try it

Copy these examples into Copilot Chat to compare a poorly crafted prompt with a well-crafted one.

Example 1

Create a 9th-grade lesson plan for science.

A vague prompt lacks context, specific topics, clear learning objectives, and activity types, leading to overly general responses.

Example 2

Create a 9th-grade biology lesson plan on cellular respiration aligned with NGSS. Structure it for a standard class period with: a 10-min warm-up, 20-min interactive lecture, 30-min hands-on activity, and 10-min formative assessment. Include specific learning objectives, materials for each segment, engagement strategies, differentiation for diverse learners, and clear assessment criteria.

A well-structured prompt includes clear instructions, alignment considerations, and key components, yielding detailed, tailored responses.

Now, continue iterating on your prompt to refine your results.

- Please provide five different analogies that are culturally diverse to help students remember the three stages of cell respiration.
- How might I make the lecture more interactive? Provide three to five ideas for this lesson.
- What are some scaffolds I could use with students that might be struggling with this content?
- Generate 5 alternative formative assessments that account for language proficiency differences to fairly evaluate the understanding of multilingual learners.

Elements of an effective prompt

Use these elements to help you get better responses from your AI assistant. The more elements you incorporate, the better your results will match your query—saving time and limiting irrelevant results.

Goal

What response do you want from Copilot?

- Review and offer suggestions on improving a policy.
- Outline a budget for the next school year.
- Create an action plan based on the minutes of a board meeting.

Context

Why do you need it? How do you want it? Who is involved?

- Background information or specific details related to the task
- Type of output (table, image, email, etc)
- Elementary educators that teach art and music

Source

Which information sources or samples should Copilot use?

- Focus on email and Teams chats since June.
- Use attached PDF to...
- Review this site [insert URL] for...

Expectations

How should Copilot respond to best meet your expectations?

- In less than 500 words
- In a friendly and courteous tone
- Make columns for x, y, and z

Example Copilot prompt

Goal

Evaluate online apps appropriate for high school students to learn pronunciation in world languages. Create a table with the app's name, brief summary, cost, and user rating.

Context

Educators will use this table to select tools for language pronunciation support for high school students. Focus on highly rated, easily integrated apps for different skill levels.

Source

Use educational websites, app store reviews, and teacher forums to find reliable apps.

Expectations

The table should be clear, organized, concise, and include at least 5–7 apps.

Refine your prompt

Experiment with different instructions, techniques, or word choices to get varied responses. If the results don't match your expectations or lack specificity, adjust your prompt. Refining AI responses involves iterating until you achieve the desired results.

Tip	Description
Be clear and specific	Provide specific instructions about the task to be performed, explain the data context, and output requirements. Leave as little to interpretation as possible.
Give examples	Use high quality and diverse examples to guide the AI to generate more relevant and accurate responses.
Be descriptive	Use analogies and provide details.
Use specific language	Avoid using slang, jargon, or informal language as it may cause the AI to give low quality, inappropriate, or unprofessional responses and create inconsistencies when translated into other languages.
Provide context	Always provide context and set expectations. Generative AI relies on clear instructions to frame its response and often needs assistance identifying relevant knowledge sources.
Re-purpose a successful prompt	Use a successful prompt as a template and adapt it for similar tasks. Example: *Design a lesson plan for a **[course and level]** that aligns with **[standards]** and concentrates on the topic of **[topic]**. The lesson should include **[list of required parts]**. It should be structured **[requirements]**.*
Checking for accuracy	Remember, AI is an assistant, not a replacement for humans. It can make mistakes, resulting in inaccurate or fabricated information. Always review AI responses for accuracy, grammar, and style. Ensure translations or multilingual content are contextually correct and culturally appropriate. Additionally, verify that AI-generated content is factual and check for any irrelevant or inappropriate material.

Interactive prompts

Try using the following prompts in Copilot Chat and then refine them to meet your needs.

Copilot prompt

As an ESL/Bilingual Coordinator, design a two-hour interactive workshop for ESL/Bilingual staff focused on using student data to inform instruction. The session should guide participants in analyzing state language proficiency assessments, classroom data, and anecdotal evidence to identify next steps. Include clear objectives, collaborative tasks for setting goals and planning scaffolds, activities that integrate multiple data sources, and tools to evaluate effectiveness and plan follow-up support. Ensure the workshop promotes active participation, meets staff needs, and includes clear instructions and materials for implementation.

Copilot prompt

As a collaborative and knowledgeable instructional coach, support teachers in introducing the rhetorical appeals—logos, pathos, and ethos—to 10th–11th grade AP Language students with no prior exposure. Provide clear, accessible explanations, relatable analogies, and practical examples for each concept to help students easily grasp and apply them in context.

Copilot prompt

As a cybersecurity expert, create a clear, practical tutorial for K–12 and higher education staff on spotting and responding to phishing emails and social engineering attacks. Focus on nontechnical strategies, real-world examples, and tips that apply across various email platforms. Ensure the tutorial is adaptable and emphasizes practical measures to enhance staff awareness, reduce risk, and protect institutional data.

Professional learning

Generative AI brings new technology and new learnings. A well-developed professional learning plan supports informed adoption, promotes responsible practices, and ensures your institution remains relevant and responsive to change. Start with low-stakes experimentation, then apply these strategies to shape your plan.

Conduct a needs assessment to identify the gaps and opportunities for adoption. Consider your users' roles and expertise levels and how they can benefit from AI skills.

Define clear and measurable objectives that align with your AI priorities. Determine what learners should know and do after completing the AI learning plan.

Select relevant and engaging content that covers the topics and skills your learners need. Use existing resources or create your own.

Choose the appropriate delivery method for your content—in-person, online, synchronous, asynchronous, or a mix—to meet learner needs. *For professional development support, check out Microsoft Global Partner Training program and/or our Training Service Partners.*

Collect feedback and evaluate the effectiveness of your AI learning plan. Use data and evidence to monitor progress, refine your plan, and improve AI adoption.

Foster a community of practice, where learners can share their experiences, challenges, and best practices with AI. Encourage continuous learning as AI evolves.[22]

Take professional learning further

Explore the Microsoft Education Prompt-a-thon collection to help your team build core AI skills for education.

Microsoft Learn

Microsoft offers a variety of free resources to support AI skilling. Microsoft Learn provides technical documentation and self-paced professional learning experiences for different roles and levels.

Documentation and resources

Track training progress and certifications of learners within your tenant using the Microsoft Learn Organizational Reporting Overview

Audience: K-12 and Higher education IT leadership and IT department

K–12 educators can explore AI for Education, featuring the AI for education learning path and Classroom toolkit.

Audience: K-12 educators and leaders

Faculty members can access AI curriculum, labs, assessments, and industry-recognized credentials via Microsoft Learn for Educators.

Audience: Higher education faculty and leaders

Self-paced professional learning experiences

Prepare your organization for Microsoft 365 Copilot

Learn about the features of Microsoft 365 Copilot and how to implement it at your institution.

Format: Microsoft Learn learning path

Audience: K-12 and higher education IT leadership and IT department

Preparing for AI: The AI learning journey for technical leaders

Gain essential knowledge to set up, deploy, and use AI solutions, including what to enable to use or build internal AI solutions.

Format: Microsoft Learn collection

Audience: K-12 and higher education IT leadership and IT department

Preparing to use AI: How business leaders can build a foundation for AI success

Discover the five pillars that help institutions on the path to AI transformation.

Format: Microsoft Learn collection

Audience: K-12 and higher education IT leadership and IT department

GitHub Education

GitHub is another location that offers free developer tools, training, and support for students, educators, and schools.

[Artificial intelligence for beginners—A curriculum]

Explore AI with a 12-week, 24-lesson beginner-friendly curriculum covering tools like TensorFlow and PyTorch.

Format: GitHub curriculum with hands-on lessons, quizzes, and labs

Audience: Higher education faculty and students; Higher education IT department; K–12 IT department

[Mastering GitHub Copilot for paired programming]

Discover how to harness GitHub Copilot with this 6-lesson course on AI-assisted programming.

Format: GitHub Education course

Audience: Higher education faculty, leadership, IT leadership, and IT department

Discover your AI learning path

Use the Microsoft AI Skills Navigator [link] to create a personalized learning path based on your goals and expertise.

Need help deciding where to start? Use the free Digital Skills Compass assessment to get a personalized action plan.

[Copilot prompt]

As the IT Department Director, you're tasked with enhancing educational strategies through technology. Design a detailed 1-hour professional development session for middle school educators focused on integrating Microsoft Copilot to improve student writing across subjects. Specify:

- Session Goal: Clarify the main objective.
- Learning Objectives: List specific skills or knowledge the educators will gain.
- Hands-On Activities: Detail interactive tasks involving Copilot, tailored to writing improvement.
- Ethical and Pedagogical Framework: Allocate time for discussing the responsible use of AI in education.
- Evaluation Methods: Describe how educators' understanding and session effectiveness will be assessed.

Ensure the plan is practical, directly applicable to classroom settings, and addresses educators' current familiarity with AI tools.

Our commitment to collaboration

Microsoft is dedicated to driving innovation in education by collaborating with leading edtech partners. By integrating partner solutions with Microsoft's AI technologies, educational institutions gain tailored, scalable solutions that address their unique needs.

Beyond technology, Microsoft and its partners provide training, workshops, technical support, and best practices for trustworthy AI in education. This collaboration ensures education leaders have the tools and expertise to implement AI effectively, reinforcing Microsoft's mission to empower every student and educator to achieve more.

Partnerships enhancing AI integration in education

Microsoft collaborates with leading edtech partners to deliver customized solutions addressing key challenges in education. The table highlights some of these partnerships, illustrating how each partner's offerings benefit educational institutions and align with Microsoft's AI solutions.

These collaborations provide institutions with the tools, training, and confidence to integrate AI effectively. Together, Microsoft and its partners help educational institutions be more innovative, inclusive, and prepared for the future.

Partner	Benefits to educational institutions
Khanmigo for Teachers Khan Academy's AI-powered assistant for teachers	• Personalizes learning support • Offers instant feedback for students • Reduces grading workload
Kahoot! Learning product suite	• Saves time for educators • Improves search and brainstorming • Creates quizzes and presentations
Quizlet AI-powered study tools and flashcards	• Improves student retention • Offers personalized study paths • Engages students with interactive content
Canvas by Instructure Learning management system integration	• Fully immersive Teams meetings through LTI • OneDrive LTI support • Course roster sync in Teams through Class Teams LTI
Schoology by PowerSchool Learning management system integration	• Fully immersive Teams meetings through LTI • OneDrive LTI support
Blackboard by Anthology Learning management system integration	• OneDrive LTI support

Microsoft supports accessible AI

At Microsoft, we believe everyone should have access to technologies that unlock content. Since 2018, our AI for Accessibility program has supported projects that empower people with disabilities. We invest in ideas that are developed by or with people with disabilities to improve accessibility for communication, mental health, neurodiversity, and vision.

"Assistive technology used to be something tacked on after the fact to make computers and software more accessible. Now, we're seeing many of those features integrated right from the start, making them available to everyone."

Rylin Rodgers,
Disability Policy Advisor
at Microsoft

Microsoft AI accessibility tools

Accessible technology is vital for more than 1.3 billion people with disabilities globally. With AI, the possibilities are growing, as is the responsibility to get it right.

- Seeing AI is a free mobile app that narrates the world for people who are blind or with low vision. People can point the camera and hear a description.
- Azure AI Vision processes image information, enabling LLMs to generate descriptions and answer user questions about the image.
- The Ask Microsoft Accessibility bot helps users find publicly available information about the accessibility of Microsoft products and services.
- Custom Neural Voice lets users create personalized synthetic voices using their own speech samples, helping individuals with conditions like ALS maintain their ability to communicate.

Copilot Chat supports more accessible classrooms

Educators can use Copilot Chat to make learning more accessible for individual students or an entire class. Copilot Chat can:

- Express ideas in various formats, like images and figures, from text descriptions.
- Provide alternative text for images in PowerPoint or Word documents.
- Extract data from images or PDFs and transfer it to Word document charts or Excel spreadsheets to better support screen readers.
- Draft translated text into multiple languages for students, families, and community members.
- Customize explanations to make content accessible, like simplifying complex topics for different age groups and incorporating student interests.

Copilot Chat is designed to be an assistive technology for everyone, making teaching and learning more accessible and tailored to individual needs.

Index

AI Sparks and Snapshots

This section provides two complementary resources to help you implement Microsoft AI tools effectively in your institution.

AI Sparks inspire systemic change through brief scenarios showing how teams collaborate with Microsoft AI tools to create institution-wide impact.

AI Snapshots provide step-by-step implementation guides with detailed instructions, sample prompts, and practical walkthroughs for specific AI use cases.

Use Sparks for inspiration and Snapshots for implementation as you advance student success, drive institutional innovation, and simplify and secure IT.

Student success

Institutional innovation

Simplify and secure IT

AI Sparks: Student success

AI Sparks help your team use Microsoft AI tools to create lasting, systemic impact. Use these Sparks to inspire and apply strategies in your context, brainstorming new ways your team or department can support student success through AI.

Microsoft helps schools and universities deliver inclusive, adaptive learning experiences that enhance learning for all students. With tools like Reading Coach, Copilot Chat, and Learning Zone, educators personalize instruction while driving systemic improvements in literacy, writing, and curriculum development.

District-wide early literacy acceleration with Reading Coach and Reading Progress

District literacy coordinators implement AI-powered Reading Coach across K-3 classrooms, giving students personalized reading passages and real-time fluency feedback. Reading Progress analytics help classroom educators and district specialists track student growth and find literacy trends to support informed instruction.

Institution-wide writing support with Copilot Chat

English departments lead colleagues in integrating Copilot Chat's AI writing assistance into courses with written assignments. Faculty learn how AI helps provide grammar and structure feedback while maintaining data security. This offers students consistent writing support and allows faculty to focus more on ideas and critical thinking.

Collaborative curriculum development with Learning Zone

Science teams use AI-powered Microsoft Learning Zone on Copilot+ PCs to create standards-aligned biology units with intelligent content generation. Faculty collaborate to develop and share these resources, helping streamline curriculum development and support instructional consistency across the department.

Transforming student engagement with relatable and relevant content

How Microsoft 365 Copilot Chat can help educators increase accessibility by making student learning more engaging, and relevant, ultimately boosting outcomes for all students

K-12 Educator

Use Copilot Chat to generate relevant examples when explaining new concepts, making the content more relatable and easier to understand for your students.

Goal: Student success

Help ensure directions and explanations are accessible for all students.

Technology

Copilot Chat

1. Visit m365copilot.com.
   Note: Be sure you're signed in using your school account to ensure enterprise data protection is enabled. Additionally, ensure that "Web" is selected for the following query.
2. Copy-paste one of these prompt ideas into Copilot Chat. Tailor any relevant information to your needs.
   a. *I'm teaching a lesson on ecosystems to English Language Learners (ELL) students from Mexican, Vietnamese, and Somali backgrounds. Can you provide an example of a food chain that includes animals relevant to these cultures?*
   b. *I'm teaching the Pythagorean theorem to 9th-grade students with interests in basketball, guitar playing, and video game design. Can you provide an explanation of the theorem tailored to each of these interests?*
   c. *I'm teaching **[concept]** to **[audience]** students with **[backgrounds/interests]**. Can you provide an explanation of **[concept]** tailored to each of these interests?*
3. Copilot Chat will generate the examples, but don't leave it yet. Copilot Chat can continue the conversation and go deeper. Try asking:
   a. *Can you create a quiz question using each of these examples to check for understanding?*
   b. *What are some common misunderstandings students have about this concept?*
   c. *What is a hands-on activity we could do to help solidify the learning?*
   d. *What other real-world contexts could we explore where **[concept]** is used?*
4. When you're finished, export your responses to a Word document, PDF, or text file to share with your students, or copy and paste them to another location for easy access.

Supporting students with AI-driven insights

How Microsoft Fabric empowers academic leaders to support students through AI-driven data insights

Dean of Students

Analyze student engagement to pinpoint challenges and employ AI-driven recommendations for targeted interventions aimed at supporting student persistence.

Goal: Student success

Improve identification and support for struggling students through enhanced data analysis.

Technology

- Fabric
- Copilot in Fabric

1. Access Fabric.
   a. Open the Fabric homepage and select the **Account manager**.
   b. In the Account manager, select **Start trial**. If you don't see the Start trial button, trials might be disabled for your tenant.
   c. Use the Admin center **Capacity settings**. All users with access to those workspaces are now able to use that trial capacity. The Fabric administrator can edit **Capacity settings** as well.
2. Set up a Task Flow.
   a. Navigate to the workspace where you want to create your task flow and open **List view**.
   b. Select a predesigned task flow on the empty default task flow, by choosing **Select a task flow**.
   c. Add a new task to the task flow canvas, open the **Add dropdown** menu, and select the desired task type.
   d. Edit the task name and description.
   e. Change the task by opening the task details pane and then selecting from the **Task type** dropdown menu.
   f. Arrange the tasks by selecting and dragging each task to the desired position in the task flow.
   g. Add connections by selecting the edge of the starting task and drag to an edge of the next task.
3. Assign items to a new task.
   a. Once a task has been placed on the canvas, assign items to it to help structure and organize the work. Create new items to be assign to the task, or assign items that already exist in the workspace.
4. Enable Copilot in Fabric.
   a. Copilot and other generative AI features in preview bring new ways to transform and analyze data, generate insights, and create visualizations and reports in Microsoft Fabric and Power BI.

Sparking students' curiosity with AI-powered teaching assistants

How Khanmigo for Teachers helps educators make relevant instructional content that connects to students' interests

Elementary teacher

Connect lesson topics with real-world context and students' lives to boost engagement and relevance.

Goal: Student success

Make learning materials more meaningful and accessible through relevant connections for students.

Technology

Khanmigo for Teachers

1. Access Khanmigo for Teachers.
   Note: Khanmigo for Teachers is available for free in 40+ countries in partnership with Microsoft.
   a. Go to https://www.khanmigo.ai/.
   b. Select **Teacher**.
   c. Choose an option for creating an account.
   d. Fill out the required information on the form.
   e. Select **Sign up**.
2. Generate content with real-world context.
   a. From the Khanmigo for Teachers homepage, select **Real World Context Generator**.
   b. Set the grade level.
   c. Add the instructional topic and then select **Write some ideas**.
   d. Review and customize the generated content.
3. Connect content to students' passions.
   a. From the Khanmigo for Teachers homepage, select **Make it Relevant**.
   b. Add the learning objectives.
   c. Add students' interests and then select **Make it relevant.**
   d. Review and customize the generated content.
4. Customize content.
   a. Highlight a word or passage from the generated text.
   b. Select from the following options in the pop-up menu:
      i. **Make changes to this:** Offer Khanmigo direction such as "Turn this into a five-minute station activity."
      ii. **Try something new:** Request an entirely new option without needing to add any directions.
      iii. **Discuss this:** Open a side-bar discussion with Khanmigo.

Saving time and improving instructional clarity with clear, age appropriate, and inclusive language

How Microsoft Teams for Education assists educators in creating accessible and clear assignments

Secondary social studies teacher

Develop accessible and clear educational experiences, optimize curriculum and assessment planning, and equip students with skills essential for the future.

Goal: Student success

Enhance the clarity of instructions in assignments to more effectively support and engage learners using Microsoft Teams for Education Assignments.

Technology

- Microsoft Teams for Education Assignments

Access Microsoft Teams for Education Assignments.

- **a.** Log into Microsoft Teams for Education or in the app.
- **b.** Select a **class team**.
- **c.** Create a **new assignment**.

1. Draft the assignment.
   - **a.** Enter a title for your assignment.
   - **b.** Start typing instructions for the assignment. After entering ten characters, AI will generate instructional details.
2. Customize **Assignment settings**.
   - **a.** Grade Level: Guides the LLM (Large Language Model) for the target audience. Default is Grade 8 but can be changed.
   - **b.** Add Detail: Expand the provided text.
   - **c.** Add Steps: Format text into clear steps for students.
   - **d.** Add Sparkle: Add emoji to key concepts and steps.
   - **e.** Add Learning Objectives: Suggest learning objectives for the assignments.
   - **f.** Clarify Concepts: Outline key concepts for the assignment.
   - **g.** Simplify: Make the text easier to read.
   - **h.** Emphasize Key Concepts: Bold key concepts in the text.
   - **i.** MLL Focused: Simplify text for multi-language learners (English only).
   - **j.** More: Show additional Generative AI actions not displayed due to limited space in the AI toolbar.
3. Create an assignment in Microsoft Teams for Education. Choose an option.
   Note: Generative AI instructions are limited to 10 generations. Each added action counts as one generation. The counter below the AI toolbar shows the remaining generations.
   - **a.** Select **Keep it** if you like the result.
   - **b.** Select **Regenerate** for a new result.
   - **c.** Select **Cancel** to return to your original instructions.
4. Translate into another language.
   - **a.** Enter assignment instructions in your native language.
   - **b.** Select the **settings icon** in the top-right corner.
   - **c.** Choose **Language**.
   - **d.** Select a language from the list.

Generating high-quality math assessments and detecting of areas of growth for student knowledge

How Math Progress increases educator efficiency generating math assessments and helps identify opportunities for learning

Elementary teacher

Create relevant math questions and customized lessons, review assignments, and track insights over time.

Goal: Student success

Craft personalized math questions that meet students' specific learning needs.

Technology

- Math Progress

1. Access Math Progress.
   a. Log into Microsoft Teams for Education.
   b. Choose a class team.
   c. Create a new assignment.
   d. Select **Learning Accelerators** and then **Math Progress.**
2. Create a Math Progress assignment.
   a. Choose **Generate.**
   b. Choose a category and a topic from the dropdown menus.
   c. To use AI to generate a problem set, select **Generate**.
   d. Select your preferred problems by checking the box in the top right of each card. Your choices will appear in the **Assignment Questions** panel.
3. Customize the assignment.
   a. Change any problem by choosing the **Edit** button. All answer fields in the problem can be modified.
4. Review the assignment and student progress.
   a. Navigate to the student submission.
   b. Observe the auto-graded assignment and make adjustments if needed.
   c. Choose one of the report cards to see student's progress across assignments and compare that to the rest of the class.

Advancing student success with a personalized AI tutor

How education organizations can easily build customized academic support for students with Microsoft 365 Copilot Chat and Microsoft Copilot Studio

Academic Dean

Develop an AI study assistant that aids learners across various topics and subjects, providing anytime, anywhere support.

Goal: Student success

Provide personalized academic support for all students whenever and wherever they need it.

Technology

- Copilot Studio
- Copilot Chat

1. Select either Copilot Chat or Copilot Studio to create the agent.
2. Open Copilot Chat.
   a. Select **Create an agent**.
   b. Customize your agent through Copilot Studio agent builder.
   c. Manage your settings to determine who can access your agent.
3. Access Copilot Studio.
   a. Go to the Copilot Studio portal.
4. Create an agent.
   a. Select **Create** and then **New agent**.
   b. Define the agent's purpose: *Develop an AI study assistant that aids higher education learners across various topics and subjects, providing anytime, anywhere support.*
   c. Name the agent.
5. Respond to the Copilot Studio questions and prompts such as:
   a. *Determine a purpose, tone, and any items that should be avoided in the agent's responses.*
   b. *Refine the agent's parameters as needed.*
6. Set up the knowledge base by linking your agent to trusted sources or asking Copilot Studio to provide suggested sources.
   a. Public websites: Connect to reliable academic resources.
   b. SharePoint and files: Upload and link SharePoint resources.
   c. Dataverse: Use structured data tables for data management.
   d. Microsoft Fabric: Integrate enterprise data securely.
7. Configure the agent by selecting **Skip to configure**. Customize the language, name, icon, description, instructions, and knowledge.
8. Create and test the agent.
   a. Select **Create**.
   b. Test your agent in the sidebar.
   c. Iterate on the left-side.
   d. Select **Publish**.
9. Publish the agent and configure deployment.
   a. Select **Publish**.
   b. Select **Channels** and then select the desired channel.
   c. Select a location.
      i. Live or demo website
      ii. Microsoft Teams
      iii. Mobile or custom apps

Discovering passions through college and career pathways

How Microsoft 365 Copilot Chat helps students explore careers with mock interviews, trends, skills, and education options

Secondary or post-secondary student

Make career decisions based on personalized pathways and guidance.

Goal: Student success

Improve student college and career exploration, preparation and skilling.

Technology

Copilot Chat

1. **Explore college and career pathways with these sample prompts that follow the Think-Act-Know-Go framework:**
   a. **Think:**
      i. Help me reflect on my interests and strengths.
      ii. What values are most important to me in a future job?
      iii. Create mock interview questions to help me think deeply about my passions and career goals.
   b. **Act:**
      i. Give me steps to explore my career aspirations and interests.
      ii. Help me practice different interview scenarios and provide feedback on my responses.
      iii. Create a set of questions that focus on my interests, strengths, and career goals.
      iv. Help me write a professional email to request an informational interview.
   c. **Know:**
      i. Research current and future career trends.
      ii. Present this information in an engaging format, like a PowerPoint presentation, to aid my career decisions.
      iii. Identify industries with high demand for skilled workers and forecasted growth.
      iv. Compare two careers I'm interested in using a side-by-side chart.
   d. **Go:**
      i. Develop a detailed skilling roadmap that outlines my journey to my desired career.
      ii. Include milestones and timelines to track my progress.
      iii. List relevant courses, certifications, and training programs.
      iv. Suggest extracurricular activities, internships, and volunteer opportunities.
      v. Create a timeline that includes academic, personal, and professional milestones.

AI Snapshots are just the beginning. Explore Empowering teen students to achieve more with Copilot Chat and Microsoft 365 Copilot and the AI Classroom Toolkit to continue learning.

Using personalized speech analysis to enhance world language speech skills

How Azure AI Foundry streamlines and personalizes world language speech practice for students.

World language educator

Enhance student speech outcomes with AI-driven, personalized practice plans.

Goal: Student success

Provide real-time feedback to enhance students' world language skills.

Technology

Azure AI Foundry

1. Conduct a scripted assessment.
   a. Go to Pronunciation assessment in the Azure AI Foundry portal.
   b. On the Reading tab, choose a supported language that you want to evaluate for pronunciation.
   c. Use provided text samples or enter your own script.
2. Access assessment results.
   a. Select Assessment results.
   b. Pronunciation scores are aggregated assessments based on accuracy, fluency, completeness, and prosody.
   c. Content scores are only available for unscripted assessments and aggregate vocabulary, grammar, and topic scores.

AI Snapshots are just the beginning. Explore Pronunciation assessment in the Azure AI Foundry portal and Interactive language learning with pronunciation assessment to continue learning.

AI Sparks: Institutional innovation

AI Sparks help your team use Microsoft AI tools to create lasting, systemic impact. Use these Sparks to inspire and apply strategies in your context, brainstorming new ways your team or department can support student success through AI.

Microsoft empowers schools and universities to drive institutional innovation through secure, adaptive AI solutions. With tools like Copilot, Azure, and Fabric, staff teams collaborate to modernize operations, streamline processes, and support data-driven decision-making for scalable transformation across every department.

Facilities and operations teams modernize with Willow

Facilities and operations departments collaborate to unify campus data using Willow on Microsoft Azure. Together, they identify efficiencies, reduce costs, and reinvest savings in academic innovation, creating sustainable, modernized environments that help everyone on campus.

Transportation and data teams optimize routes with Fabric

Transportation and analytics teams collaborate using Microsoft Fabric to centralize and analyze bus route data. Teams use AI-powered analysis to help address equity gaps, optimize schedules, and improve safety, supporting institutional goals for inclusion and operational excellence.

Instructional leadership teams coordinate professional development with Copilot

Instructional leadership teams use Copilot's agentic AI to collaboratively design and manage professional development plans. AI-powered coordination helps align school priorities, educator goals, and student outcomes, helping educators advance through personalized learning while supporting systemic growth across the institution.

Improving efficiency in K-12 grant writing

How Microsoft 365 Copilot Chat and Microsoft 365 Copilot can support grant identification and streamline the application process

K-12 Grant Coordinator

Use generative AI to find and apply to more grants and improve the efficiency of the process.

Goal: Institutional innovation

Improve efficiency and productivity in identifying and preparing grant applications.

Technology

- Copilot Chat
- Copilot

1. Visit m365copilot.com.
   Note: Sign in using your school account to ensure enterprise data protection is enabled. Additionally, ensure that **"Web"** is selected for the following prompts. That setting will ensure only publicly available information is accessed and not private data on your PC.
2. Copy-paste the following prompt into Copilot and update the highlighted text to reflect the name of your school district or organization:
   *Analyze available information about my school district, **[School or Organization]**, and identify five key needs that could be addressed by a publicly available grant.*
3. Continue the conversation with Copilot by asking it:
   Are there specific grant programs available for the first item on the list for my school district?
4. Next, ask Copilot:
   Craft a clever title for the grant application and then draft an outline to apply for the first grant program you've identified. For each point in the outline, include a 300-word response that addresses the grant application requirements. Be sure to include citations for each section.
5. Use the **copy** icon in Copilot (or the Export to Word option) after the response in step 4 to copy Copilot's response and paste it into a new Word document.
6. Open the Copilot sidebar in the Word document, select one of the sections of the outline that needs additional information, and enter the following prompt:
   What indices should I include in this section?
   Note: You may have to copy-paste the excerpt into Copilot.
7. Use this outline and summary as the starting point of a grant application. You may also want to use Copilot in Word to prompt for additional data or justification for the potential grant application.

Automating transcripts and redactions

How Microsoft 365 Copilot in Teams increases efficiency and protects sensitive information

Administrative assistant

Summarize key discussion points—including who said what and where people are aligned or disagreed—and suggest action items, all in real time during a meeting.

Goal: Institutional innovation

Keep teams connected and productive with real time meeting summaries that automatically assign action items and protect sensitive information.

Technology

Microsoft 365 Copilot in Teams

1. Access Copilot in Teams.
   a. Open the **Teams** admin center.
   b. Expand **Meetings** from the navigation pane.
   c. Under **Meetings**, select **Meeting Policies**.
   d. Either select an existing policy or create a new one.
   e. Select **On** or **On only with retained transcript** from the dropdown for the Copilot setting.
   f. Select **Save**.
2. Improve efficiency during Teams meetings.
   a. Select the Copilot icon in from the toolbar.
   b. Chat with Copilot using these suggested prompts:
      i. *What are some follow-up questions that I can ask in an email?*
      ii. *Create a table with the ideas discussed and their pros and cons.*
   c. Select **More prompts** and choose from the following:
      i. *Recap the meeting so far.*
      ii. *List action items for each person.*
      iii. *Generate meeting notes.*
3. Close a meeting.
   i. Copilot will send a prompt a few minutes before a meeting's scheduled end to help participants wrap up.
   ii. Select **Open Copilot** to see a summary of key points of discussion and identify agreed-upon next steps, including tasks assigned to specific people.
4. Follow-up after a Teams meeting.
   a. From the meeting chat, go to the **Recap** tab and open Copilot. From here, Copilot bases responses on the meeting transcript.
   b. Try these prompts. Copy them or modify them to suit your needs.
      i. *Draft an email to the meeting participants that summarized the meeting and includes the action items. Redact any sensitive information.*
      ii. *What questions were asked, answered, and unresolved?*
      iii. *Summarize what people said in a less technical way.*

Breaking language barriers in real time for more accessible community engagement

How Azure OpenAI Service enhances community connections with real-time translation

Director of Community Engagement

Offer real-time translation at community events and meetings to promote inclusivity.

Goal: Institutional innovation

Foster community engagement through seamless communication in over 100 languages.

Technology

- Azure OpenAI Service

1. Access Azure.
   Note: Creating solutions using Azure OpenAI Service is an iterative process and these suggested steps can get you started on creating robust custom AI solutions.
   a. Sign up for an Azure subscription.
   b. Go to the AI Foundry home page.
   c. Select the **Real-time audio** playground from under **Resource playground** in the left pane.
   d. Select **+ Create a deployment** to open the deployment window.
   e. Search for and select the "gpt-4o-realtime-preview" model and then select **Confirm**.[1]
   f. Follow the wizard to deploy the model.
2. Open the GPT-4o real-time audio assistant.
   a. Select the Azure OpenAI Service page in AI Foundry.
   b. Select the **Real-time audio** playground from under **Resource playground** in the left pane.
   c. Select the deployed gpt-4o-realtime-preview model from the **Deployment** dropdown.
   d. Select **Enable microphone** to allow the browser to access your microphone. If you already granted permission, you can skip this step.
   e. Adjust settings or provide context such as the assistant's personality.
3. Communicate with the assistant.
   a. Select **Start listening** to start the session. You can speak into the microphone to start a chat.
   b. You can interrupt the chat at any time by speaking. You can end the chat by selecting the **Stop listening** button.
4. Select the appropriate deployment type that meets your cost, data residency, and usage needs.

1 As of winter 2024, select the 2024-10-01 model version.

Creating dynamic data collection and verification apps

How Power Apps Canvas Apps empower field research through custom data collection

Field researcher

Collect data from remote locations, verify its accuracy, and combine data from various sources into a unified dataset.

Goal: Institutional innovation

Improve efficiency and accuracy in field data collection with a user-friendly app that simplifies data entry.

Technology

- Power Apps

1. Sign in to Power Apps.
2. Select **Create**, then choose a **blank app, template, or start from data** depending on your needs.
3. Customize your app's layout and design using drag-and-drop elements like text boxes, buttons, and images.
4. Use Power FX formulas to add logic, such as validating input or triggering workflows (e.g., sending notifications or saving data).
5. Test your app in a simulated environment using preview mode.
6. Select **Save**, then **Publish**, to make the app available to other team members. You can also share the app with others by setting permissions.
7. To use the app on a computer: Go to Power Apps home, find your app in the left menu, and click the **play icon** to launch it.
8. Access an app on a mobile device. Ensure your device is connected to the internet for the first login.
   a. Install the Power Apps mobile app.
   b. Open the app.
   c. Log in with your Microsoft credentials.
   d. Select the app from the list.
9. Use the app to enter, view, and analyze collected data. You can export data or connect it to Power BI for deeper insights.

AI Snapshots are just the beginning. Explore Discover Power Apps for Educators and Create a canvas app in Power Apps to continue learning.

Personalizing media recommendations for libraries with a custom AI agent

How Copilot Studio agent builder connects learners to the media that drives their passions

Media specialist

Create personalized content recommendation agents that enhance student engagement and support high-interest media choices.

Goal: Institutional innovation

Connect students to high-interest media based on their interests, literacy skills, and reading preferences.

Technology

Copilot Studio agent builder

1. **Prepare library management system (LMS) data.**
   a. Work with your IT team to access your LMS's API and ensure secure data transfer to Azure.
   b. Ingest data into Azure Data Lake or Azure SQL.
2. Sign in at Copilot Studio agent builder and select **Create an agent**.
3. **Define the agent's purpose and behavior with these sample prompts:**
   a. **Purpose:** Provide personalized media recommendations based on the student's interests, literacy skills, and preferences.
   b. **Content types:** Create an agent that recommends books, movies, music, speeches, and art based on the student's interests, age, and literacy level.
   c. **Recommendation algorithms:** Analyze the students' media history and preferences to identify patterns and suggest media that align with the student's interests and literacy level. Copilot Studio uses built-in AI models; no coding is required to apply these algorithms.
   d. **Data sources:**
      i. **Media lists:** Connect to popular lists like from the New York Times, Goodreads Choice Awards, UK's Carnegie Medal, Australia's CBCA Book Awards, the American Library Association's (ALA), or Billboard Music Charts.
   e. **Content safety:** Ensure the recommendations are appropriate for students. Use Azure AI Content Safety to filter and verify the content. This step is critical for ensuring age-appropriate and culturally relevant content.
   f. **Continual improvement:** Implement feedback mechanisms where students can rate the recommendations, and the agent can adjust its algorithms accordingly.
4. Test your agent using the **Try it** tab, then publish and share the link.

AI Snapshots are just the beginning. Explore Create and delete agents and Empowering everyone with agents in Copilot Chat to continue learning.

AI Sparks: Simplify and secure IT

AI Sparks help your team use Microsoft AI tools to create lasting, systemic impact. Use these Sparks to inspire and apply strategies in your context, brainstorming new ways your team or department can support student success through AI.

Microsoft empowers schools and institutions to simplify and secure IT with a unified, AI-powered cybersecurity platform. Using Security Copilot, Copilot Studio, Copilot in Excel, and Power BI, teams collaborate on cybersecurity and innovate services that support scalable, consistent, and secure learning environments.

IT and security teams streamline onboarding with Security Copilot

IT and security teams use Security Copilot and Copilot Studio to build custom agents that guide new staff through onboarding and institutional processes. This collaboration accelerates knowledge transfer, streamlines incident response, and supports consistent, secure practices across the department.

Technology and finance teams optimize cybersecurity budgets

Technology and finance teams use Copilot in Excel and Power BI to analyze budget data, identify spending variances, and surface new funding opportunities. Together, they help develop data-driven budget proposals and presentations for board or leadership approval, helping guide resources allocation for a secure, modern learning environment

Helpdesk support and communication transformation

IT teams use Microsoft Copilot Studio analytics to find frequent helpdesk agent interactions and unresolved issues. They proactively update documentation and send targeted messages to users, enabling self-service for common problems and reducing support ticket volume across the institution.

Improving cybersecurity with custom cybersecurity promptbooks

How Microsoft Security Copilot can improve cybersecurity for technology through collaborative and custom prompts

IT Cybersecurity Specialist

Achieve consistent expert-level analysis and comprehensive reports across the IT team by creating and sharing custom Security Copilot promptbooks.

Goal: Simplify and secure IT

Improve cybersecurity against evolving threats and vulnerabilities using custom AI prompts tools that save IT admin time and improve protection.

Technology

Security Copilot

1. Access Security Copilot.
   a. Access your Azure portal.
   b. Search for and select **Security Copilot.** **Note:** Microsoft Security Copilot is offered on a consumption-based model on the number of Security Compute Units (SCU) used.
2. Create a promptbook.
   a. Type a question for Security Copilot and select **Send** or **Enter**. Use this sample prompt to get started: *If a student is listed in the incident details, show which devices they recently used and indicate if they are compliant with policies.*
   b. Select the checkboxes beside the prompts to include them or select the top box to include all prompts in the session.
   c. Select **Create** to create your new promptbook.
   d. Test your promptbook by selecting the **View** icon.
3. Share a promptbook.
   a. Go to the **Promptbook library** in the main menu and look for your promptbook.
   b. Select **. . .** , then select **Details** from the options.
   c. Review the pre-built **Promptbook Library**.
   d. Select **Share** to get a link to the promptbook that you can share with other users in your organization.
   e. Learn more about effective prompting.

Protecting institutional research data and environments at scale

How Microsoft Purview Data Loss Prevention (DLP) keeps your proprietary data secure from cybersecurity threats

Data Protection Officer (DPO)

Secure sensitive research data against unauthorized access and breaches.

Goal: Simplify and secure IT

Improve the security and compliance of sensitive research data by implementing robust DLP strategies.

Technology

Purview Data Loss Prevention

1. Access Purview DLP. Ensure your organization has the appropriate Microsoft 365 licensing to access full DLP capabilities.
   a. Sign in to the Microsoft Purview portal.
   b. Navigate to the Data Loss Prevention section.
2. Create DLP policies such as detecting credit card numbers in emails or blocking uploads to personal cloud storage.
   a. Select **Create Policy** and choose the type of data you want to protect (e.g., sensitive research data).
   b. Define the conditions and actions for the policy, such as blocking access or sending alerts when sensitive data is detected.
3. Customize policy settings. You can apply policies to Exchange, SharePoint, OneDrive, Teams, and endpoint devices.
   a. Configure the policy settings to match your specific requirements, such as specifying the environments and platforms where the policy will be enforced.
   b. Set up real-time monitoring and automated responses to potential data breaches.
4. Test and validate policies using the test without policy enforcement mode to avoid disruptions
   a. Test the DLP policies in a simulated environment to ensure they function as expected.
   b. Validate the policies by monitoring their effectiveness in protecting sensitive data.
5. Deploy DLP policies with Microsoft Defender for Cloud Apps or Sentinel for enhanced visibility and response.
6. Regularly review, update, and refine policies based on insights from monitoring and emerging data protection needs.

Checklist

Use this checklist to deploy and maximize AI tools in your institution. Take practical steps to configure, launch, and scale Microsoft AI solutions while building essential prompting skills and professional learning programs:

- ☐ **Launch a pilot program:** Start with a pilot program featuring select education leaders and IT personnel before full-scale deployment.
- ☐ **Build community trust:** Engage students, faculty, and parents through forums and workshops to address concerns and highlight benefits.
- ☐ **Develop AI literacy training:** Leverage Microsoft Learn resources to create professional development pathways for educators and staff.
- ☐ **Establish community of practice:** Create a community of practice for sharing AI experiences and best practices across your institution.
- ☐ **Create feedback loop:** Establish monthly review process to gather pilot insights, adjust policies, and plan institutional scaling.

Section 5

Research

In this section

Microsoft insights

Comprehensive AI resources for education

These resources are designed to offer educators, technology coordinators, and policy makers insights into Microsoft's latest AI tools and solutions, providing practical guidance on deployment, usage, and best practices.

2025 AI in Education: Microsoft Special Report

Microsoft • 2025

This report explores how artificial intelligence (AI) is currently being used—and how it could be used—in education around the world. Building on Microsoft's 2024 education report, it draws on global surveys of students, educators, and institutional leaders, as well as case studies, to better understand current AI adoption, perceptions, and concerns. It also highlights what's needed to responsibly and effectively integrate AI to support learning, teaching, and institutional goals.

Tools for Thought

Microsoft • 2025

This source discusses the Tools for Thought (T4T) initiative, which explores how AI can support and enhance human cognition rather than simply automate tasks. The team advocates for AI that improves critical thinking, insight, and collaboration throughout workflows. T4T emphasizes quality outcomes through better understanding and questioning, not just speed or efficiency. Their work includes principles, guidelines, and practical technologies designed to foster deeper thinking and learning in AI-integrated systems.

Agent Success Kit

Microsoft • 2025

Use this kit to prepare your tenant for AI agents and empower users to create and work with them. The kit includes resources on admin controls, licensing and payment options, training materials, onboarding email templates, and more.

2025: The Year the Frontier Firm Is Born

Microsoft • April 2025

The 2025 Work Trend Index introduces the rise of the "Frontier Firm"—organizations that embed AI agents across teams to transform productivity and redefine workflows. With 82% of leaders calling this a pivotal year for strategic change, the report outlines how digital labor is helping close the widening gap between business demands and human capacity. It emphasizes the importance of developing AI fluency across all roles, with a focus on training employees to manage and collaborate with AI agents. The report offers practical strategies and resources to support organizations in scaling AI adoption and building future-ready teams.

Overreliance on AI Risk Mitigation and Identification Framework

Microsoft • March 2025

This article examines the potential risks of overreliance on AI in productivity tasks, where unchecked outputs can lead to inefficiencies, errors, and reduced trust in AI systems. It presents a structured framework for designing AI systems that promote appropriate reliance, particularly in retrieval augmented generation (RAG) products. Grounded in research, this framework supports continuous innovation to enhance AI reliability and mitigate overreliance effectively.

Fostering appropriate reliance on GenAI: Lessons learned from early research.

Microsoft Technical Report • 2025

This report outlines key lessons from efforts to address overreliance on AI, introducing three UX goals that shaped the Overreliance Risk Identification and Mitigation Framework. Designed to help AI builders navigate common challenges, the framework emphasizes that overreliance is complex and that mitigations must be validated through user research. The report also offers practical guidance for identifying and evaluating overreliance and its mitigations in real-world settings.

Microsoft Copilot Education Scenario Library

Microsoft • 2025

Transform scenarios across your organization with AI. Download functional scenario kits, scenario guides, and day-in-the-life guides to accelerate your Copilot implementation.

Microsoft New Future of Work Report 2024

Microsoft • December 2024

This report explores how artificial intelligence, especially generative AI, is currently reshaping work. It synthesizes Microsoft's own research and other academic and industry studies to illuminate how AI is affecting productivity, workplaces, skills, user interactions, thinking and learning, reliance on AI, user experience, agents, and societal/cultural issues in the "future of work." It aims to identify not only what is happening now but what design considerations, risks, and directions are emerging.

Microsoft AI Skills Navigator

Microsoft • October 2024

In the new landscape of AI at work, opportunities are ever changing—and everyone can learn how to use AI to meet these opportunities. Nearly every role in the workforce can benefit from AI that enhances productivity and creativity. Microsoft AI Skills Navigator empowers you to learn how to unlock the power of AI at work. Learn from the latest leaders in AI innovation with an AI assistant to jumpstart your goals.

Accelerate AI transformation with skill building: Why organizations should invest in AI skill building with Microsoft

Microsoft • March 2024

The report from Microsoft highlights a critical moment for businesses to invest in AI skill building due to the rapid increase in AI adoption. This report offers statistics that point to critical shortage of skilled professionals, making talent scarcity the main barrier to AI implementation at scale. The report recommends that companies develop a comprehensive AI adoption strategy that includes a widespread skill-building initiative for all levels of employees. It offers suggestions and resources for companies to undertake skill-building efforts.

Copilot Prompt Gallery

Microsoft • 2024

The Copilot Prompt Gallery offers videos, tips, examples, and guidance to help you get started, use prompts effectively, and understand how Copilot protects your privacy.

Data and insights

Reports and infographics on AI impact and use

These resources have been developed to provide educators, administrators, and policymakers with detailed analyses and visual representations of AI's current trends, challenges, and opportunities.

2025 AI Index Report

Stanford University • April 2025

The 2025 AI Index Report offers a comprehensive, data-driven overview of the global state of artificial intelligence. It highlights significant advancements in AI capabilities, increased investment, and the growing integration of AI into various sectors, while also addressing emerging challenges and the need for responsible development. It serves as a valuable resource for policymakers, researchers, and industry leaders to understand and navigate the evolving AI landscape.

2025 EDUCAUSE AI Landscape Study: Into the Digital AI Divide

EDUCAUSE • February 2025

The 2025 EDUCAUSE AI Landscape Study provides a comprehensive overview of how higher education institutions are engaging with artificial intelligence (AI). Based on a survey conducted in November 2024 with 788 respondents from various institutions, the study examines strategies, policies, workforce development, and the emerging disparities in AI adoption. The study underscores the need for equitable support and resource allocation to ensure all institutions can effectively integrate AI into their operations and curricula.

Research Brief: Teens, Trust, and Technology in the Age of AI

Common Sense • January 2025

This report explores how U.S. teens (ages 13–18) are experiencing and responding to the challenges of trust, authenticity, and safety in a digital world increasingly shaped by generative AI. Based on a nationally representative survey of over 1,000 teens, the findings reveal that over one-third have been misled by fake online content, and many lack confidence in tech companies' commitment to their well-being. Despite this, teens are proactive—nearly three-quarters support stronger protections such as privacy safeguards and content labeling. The study emphasizes the need for collaborative action from educators, parents, policymakers, and technology leaders to help young people navigate and shape a trustworthy digital future.

Time to Act: Preparing Youth for Work in an AI-Powered World

Generation Unlimited • September 2024

This report highlights how generative AI is reshaping youth employment opportunities and outlines actions for governments, private sector, and youth organizations to close emerging gaps. Drawing on insights from 30 organizations and 53,878 young people, it calls for urgent collaboration to equip youth—particularly in low- and middle-income countries—with the skills, tools, and support needed to navigate and benefit from an evolving AI-driven economy.

LLM Based Math Tutoring: Challenges and Dataset

Pepper Miller, Kristen DiCerbo
Khan Academy • June 2024

This paper examines the challenges large language models (LLMs) face in real-time math tutoring, focusing on their accuracy during student interactions. It introduces the Conversation-Based Math Tutoring Accuracy (CoMTA) Dataset to evaluate model performance, categorizes common student–LLM exchanges, and reviews techniques for improving accuracy. The study highlights both the limitations and opportunities of applying LLMs to support math education.

Report of the NEA Task Force on Artificial Intelligence in Education

NEA • July 2024

The NEA report on AI in education examines AI's potential to enhance learning while addressing critical concerns regarding equity, accessibility, privacy, and ethics. It emphasizes the importance of making AI tools available to all students, mitigating algorithmic bias, protecting student data, and involving educators in AI policy decisions. Additionally, the report calls attention to AI's environmental impact and advocates for sustainable practices. It underscores the need for AI to support human-centered, ethical, and inclusive education.

The Dawn of the AI Era: Teens, Parents, and the Adoption of Generative AI at Home and School

Common Sense • September 2024

This report from Common Sense Media examines how generative AI is being used by teens and parents, both at home and in educational settings. Based on a survey of 1,045 teens and their parents, it highlights the diverse ways AI tools are utilized, the benefits and challenges of integrating AI into classrooms, and the disparities in access and perception based on socioeconomic factors. The report also discusses the mixed feelings about AI's future impact, with some viewing it as a beneficial tool and others expressing concerns about its effects on jobs and privacy.

Student perceptions of generative AI

Jisc • May 2024

This report explores the evolving perceptions of generative AI among students. It highlights key changes since Spring 2023, including the transition to collaborative learning, emphasis on future skills, and concerns about ethics, equity, and accessibility. The report also discusses how students are currently using generative AI for communication, learning, research, creativity, and personal support. Additionally, it addresses the need for comprehensive integration of AI in education, the importance of academic integrity, and the preparation for AI-influenced employment.

Thriving in an AI-Driven Future: Defining Critical Skills and Tolls as Jobs Evolve

IDC supported by Microsoft • March 2024

This IDC InfoBrief examines the essential skills and tools necessary for success in the era of pervasive AI. The study targets both IT roles and business functions such as marketing, sales, HR, operations, and finance. It highlights the importance of not only technical skills, but also the ability to communicate, collaborate, and enhance productivity. The InfoBrief emphasizes the need for enterprises to invest in both technical and human skills development across IT and business roles.

AI & Accessibility in Education: 2024 Blaschke Report

CoSN and CAST • 2024

This report explores the transformative potential of AI to enhance educational accessibility and support for students, particularly those with disabilities. As technologies like AI, generative AI (GenAI), and assistive tools become increasingly prevalent in educational settings, it is crucial to understand both their benefits and limitations.

Academic research and books

Studies on generative AI in education

Research on the effective use and adoption of generative AI technologies in education has become a significant focus as numerous educational institutions and organizations explore and integrate these tools.

Education in the Era of Generative Artificial Intelligence (AI): Understanding the Potential Benefits of ChatGPT in Promoting Teaching and Learning

David Baidoo-Anu, Leticia Owusu Ansah
Journal of AI • January 2025

This review examines ChatGPT's impact on education, highlighting its rapid adoption and potential to enhance teaching and learning through personalized experiences and formative assessment support. It also addresses limitations, including misinformation, data biases, and privacy concerns. The article proposes strategies to maximize benefits and mitigate risks, emphasizing the need for collaboration among policymakers, educators, researchers, and technology experts to ensure ChatGPT's safe and effective integration into educational settings.

Generative AI for Education Hub: Research Study Repository

Stanford SCALE Initiative Accelerator for Learning • 2025

A curated collection of academic research on generative AI in U.S. PreK-12 education, organized into three categories: Descriptive (usage and product design), Impact (effectiveness studies, including RCTs), and Review (syntheses of existing research). The repository prioritizes studies relevant to K-12 leaders, education organizations, edtech companies, researchers, and global education leaders. It includes pre-published academic work but excludes journalism.

Does ChatGPT enhance student learning? A systematic review and meta-analysis of experimental studies

Ruiqi Deng, Maoli Jiang, Xinlu Yu, Yuyan Lu, Shasha Liu
Computers & Education Journal • December 9, 2024

This review analyzes 69 experimental studies (20222024) on ChatGPT's impact on student learning, addressing the gap in causal evidence. Findings show ChatGPT interventions, mainly in universities, enhance academic performance, affective-motivational states, and higher-order thinking, while reducing mental effort without significantly changing self-efficacy. The review offers four recommendations: shift assessment methods, evaluate long-term effects, prioritize objective measures, and ensure adequate sample sizes.

The Impact of Large Language Models on Students: A Randomised Study of Socratic vs. Non-Socratic AI and the Role of Step-by-Step Reasoning

Andrea Blasco, Vicky Charisi

SSRN • December 2, 2024

This study examines the impact of integrating Large Language Models (LLMs) into classroom activities, particularly their step-by-step explanatory capabilities and the effectiveness of Socratic AI in fostering critical thinking. A randomized controlled experiment with 122 high school students, the study found that AI-generated step-by-step reasoning improved accuracy in prediction tasks, while Socratic AI increased engagement but did not significantly enhance learning outcomes. The findings highlight the need for pedagogically sound AI design to maximize educational benefits and effective student-AI interactions.

Case Study: Practical Insights: Incorporating ChatGPT in Language Education and Beyond

Tokyo University of Science • May 2024

This article explores the integration of ChatGPT's voice capabilities in an advanced English language seminar at a Tokyo university. The study highlights the transformative impact of AI on traditional educational practices, focusing on real-time audioresponsive interactions to enhance speaking and listening activities. The pilot study, conducted in fall 2023, involved five students and demonstrated significant improvements in student engagement and communication skills. The findings suggest that AI can effectively simulate realistic conversations, offering a new dimension to language learning.

Generative AI in Education: Pedagogical, Theoretical, and Methodological Perspectives

Omid Noroozi, Saba Soleimani, Mohammadreza Farrokhnia, Seyyed Kazem Banihashem
International Journal of Technology in Education • May 2024

This special issue explores Generative AI (GenAI) tools, including ChatGPT, in education, highlighting their potential to enhance teaching and learning. Analyzing seventeen studies, it finds GenAI improves outcomes through personalized feedback, language learning support, and research facilitation. While GenAI increases engagement and motivation, concerns regarding privacy, bias, accuracy, and critical thinking skills necessitate ethical guidelines and human oversight. The issue proposes a framework for responsible GenAI integration and urges future research on its long-term effects and inclusivity.

Impact of AI Assistance on Student Agency

Computers & Education: An International Journal • March 2024

This study investigates the impact of AI-powered learning technologies on student agency and self-regulation through a randomized controlled experiment involving 1,625 students across 10 courses. The research highlights that while AI can enhance learning activities by providing personalized feedback and scaffolding, students may become dependent on such technologies, potentially undermining their ability to self-regulate. The findings suggest that hybrid approaches combining AI with self-regulated strategies don't significantly enhance outcomes compared to AI assistance alone, raising important questions about the optimal use of AI in educational settings and its long-term effects on student learning behavior.

How AI Revolutionizes Regional Language Education

Sholar's Press - Publisher • March 2024

This book explores the pivotal role of language as a cornerstone of culture, identity, and learning, and how AI can transform language education in regional contexts. It discusses how AI can break down linguistic barriers, enhance inclusivity, and provide personalized learning experiences through technologies like AI-powered translation tools. The book offers a comprehensive overview of the challenges and opportunities in using AI to foster more accessible and effective education. It also addresses the ethical and practical considerations of integrating AI in educational settings, emphasizing a balanced approach that prioritizes the needs of students and teachers.

Artificial Intelligence for Human Learning: A Review of Machine Learning Techniques Used in Education Research and a Suggestion of a Learning Design Model

American Journal of Education and Learning • February 2024

This research paper explores the use of AI and ML (machine learning) in designing learning support systems, proposing the Self-regulated Learning with AI Assistants (SLAA) model and categorizing AI and ML techniques into nine types to enhance education. It reviews existing approaches and discusses potential benefits and challenges, emphasizing the need for careful AI integration to improve learning outcomes, support personalized education, and address technological and pedagogical considerations. The paper serves as a guide for educators and curriculum developers on leveraging AI and ML for more effective, interactive learning.

AI in Language Teaching, Learning, and Assessment

IGI Global • February 2024

This book explores the dual role of AI as both a powerful tool and a potential challenge in language education. It covers the ethical considerations and necessary safeguards for AI's integration in educational settings while highlighting successful real-world applications and future possibilities. This comprehensive resource is essential for educators, researchers, and developers interested in the intersection of AI and language education.

Teaching C550 with AI: Leveraging Generative Artificial Intelligence in Computer Science Education

Harvard University • February 2024

In summer 2023, a suite of AI-based tools was developed for Harvard University's CS50 course, aimed at simulating a 1:1 teacher-to-student ratio. Initially deployed to 70 students and later expanded online and on campus, these tools were designed to guide students towards solutions, acting as a personal tutor. The integration of these AI tools, which restricted the use of commercial AI software, was positively received, enhancing learning through continuous, customized support. This paper details the use of AI to enhance teaching and learning in CS50 by assisting with code explanation, style improvement, and handling queries on the course's discussion forum, providing a blueprint for effectively incorporating AI in educational settings.

Planning support

AI policy guides, frameworks, and toolkits

These resources from leading international organizations, educational institutions, and government bodies support educators and policymakers involved in incorporating AI within educational settings.

AI Toolkit for School Districts

Common Sense Education • June 2025

This toolkit provides school districts with strategic guidance for implementing artificial intelligence in K-12 education through a mission-driven approach that aligns with district values. The toolkit offers customizable implementation pathways, stakeholder-centered decision-making frameworks, and practical resources including templates, professional learning materials, and policy guidance. Designed to prevent fragmented AI adoption, it emphasizes equity, compliance, and responsible use while supporting sustainable, future-ready planning for districts of varying sizes and needs.

Empowering Learners for the Age of AI

The AILit Framework • May 2025

The initiative created an AI literacy framework for primary and secondary education, co-developed by the European Commission and OECD. It defines essential knowledge, skills, and attitudes to help learners critically engage with AI across four domains: engaging with, creating with, managing, and designing AI. Emphasizing ethics, human judgment, and interdisciplinary integration, the framework supports educators in preparing students for the societal and environmental impacts of AI through practical, globally informed guidance.

Generative AI in higher education: A global perspective of institutional adoption policies and guidelines

Computers and Education: Artificial Intelligence, Volume 8 • 2025

This study analyzes how 40 universities across six global regions adopt generative AI (GAI) through the lens of Diffusion of Innovations Theory. Institutions promote academic integrity, inclusive teaching, and responsible GAI use through ethical guidelines, training, and authentic assessments. However, challenges remain in data privacy and equitable access. The research underscores the need for transparent communication, collaboration, and continuous evaluation to support effective and inclusive GAI strategies in higher education.

HAX Toolkit

Microsoft • October 2024

The Human-AI eXperience (HAX) Toolkit is a resource developed by Microsoft Research and Aether to support human-centered AI design. It includes guidelines for human-AI interaction, a practical workbook, reusable design patterns, a strategic playbook, and a design library. The toolkit helps AI practitioners apply responsible, user-focused design practices across the development lifecycle to build AI systems that better align with human needs and expectations.

AI competency framework for teachers

UNESCO • September 2024

This document presents a comprehensive AI competency framework to help guide the professional development of teachers in integrating AI into education. It emphasizes the ethical, pedagogical, and foundational knowledge teachers need to responsibly use AI while promoting human centered teaching and learning environments. The framework outlines 15 competencies across five key dimensions, offering a global reference for developing AI training programs and national policies to enhance educational practices in the AI era.

A Framework for AI Literacy

Educause: Emerging Technologies and Trends • June 2024

Academic and technologies teams at Barnard College developed an AI literacy framework to provide a conceptual foundation for AI education and programming efforts in higher education institutional contexts.

Revealing an AI Literacy Framework for Learners and Educators

Digital Promise • February 2024

A framework developed by Digital Promise that emphasizes that understanding and evaluating AI are critical to making informed decisions about if and how to use AI in learning environments. Recently, the framework has been expanded to support learners, teachers, education leaders, and caregivers with the knowledge and resources they need to understand, use, and evaluate AI.

Responsible AI and Tech Justice: A Guide for K-12 Education

Kapor Center • January 2024

A guide designed for K-12 educators and students to support the critical interrogation of artificial intelligence and its implications on individuals, communities, and the world.

AI Guidance for Schools Toolkit

TeachAI • 2024

This toolkit provides guidance for education authorities, school leaders, and teachers on harnessing AI in primary and secondary education to improve learning outcomes, support teacher instruction, and enhance educational equity, while also addressing the risks such as privacy violations and inconsistent disciplinary consequences. It emphasizes the importance of structured guidelines to mitigate potential risks and ensure beneficial AI adoption practices in educational settings.

How to Use ChatGPT to Enhance Active Learning

Ministry of Education in Chile • 2024

This guide, written in Spanish and prepared by Chile's Ministry of Education, offers a range of use cases and prompts, while addressing key limitations and precautions. It hopes to equip educational institutions, teachers, students, and families with the tools to harness the opportunities provided by new technologies and to mitigate their associated risks.

Thought leadership

AI insights from academics and industry leaders

This section gathers significant articles, insightful blog posts, and noteworthy keynote presentations that discuss the uses of AI technologies in education.

The future of learning: How AI is revolutionizing education 4.0

World Economic Forum • April 2024

This paper explores the transformative potential of AI in education, emphasizing its role in supporting teachers by automating administrative tasks, enhancing assessments with real-time analytics, bridging the digital skills gap, and personalizing learning experiences to meet diverse student needs. It highlights how AI can improve educational outcomes by allowing educators to focus more on student engagement and human-centric teaching, ultimately preparing students for future job demands.

Generative AI and K-12 Education: An MIT Perspective

MIT Exploration of Generative AI • March 2024

This article explores the rise and impact of generative AI, like ChatGPT, in education. It discusses mixed reactions from educators, from enthusiasm to concern, and highlights both challenges and opportunities. It emphasizes the need for thoughtful experimentation, balanced integration, and support for teachers and students. It also addresses equity, academic integrity, and AI's potential to aid or disrupt traditional practices.

One Useful Thing

Ethan Mollick • 2024

Ethan Mollick is an Associate Professor of Management at the Wharton School of the University of Pennsylvania who studies entrepreneurship, innovation, and AI. His work on *One Useful Thing* explores how he and his students are using AI tools in the school of business and in entrepreneurial opportunities. He has published numerous works on AI including Co-Intelligence: Living and Working with AI.

Dr Phil's Newsletter, Powered by DOMS™ AI

Dr. Philippa Hardman • 2024

Dr Phil's Newsletter, Powered by DOMS™ AI, connects the science of learning & AI with the art of learning experience design. Dr. Philippa Hardman is a scholar at the University of Cambridge and a thought leader in the world of education technology. In this Tedx Talk, she discusses the changes and possibilities of AI in education and some of the resistance of education to be disrupted.

Appendix

Terms

Algorithm

A set of clear and specific instructions that can be performed in a prescribed sequence to achieve a particular goal and that has a recognizable set of end conditions.

Artificial intelligence (AI)

Defined as "the ability of a computer or other machine to perform those activities [tasks] that are normally thought to require intelligence." AI tasks involve various data analyses or production such as providing predictions or recommendations, language translation, computer vision systems, or speech recognition. AI is a human endeavor that combines information about people and the physical world into mathematical constructs. Such technologies typically rely on statistical methods, with the possibility for errors throughout an AI system's lifespan.

Deep learning

A machine learning technique in which layers of neural networks are used to process data and make decisions.

Generative AI (genAI)

A term for AI systems that generate various forms of novel output, including text, code, graphics, or audio. Examples of generative AI include generative pre-trained transformer (GPT) chatbots and text-to-image generators.

Fabrication

A phenomenon of large language models (LLMs) sometimes generating responses that are factually incorrect or incoherent.

Large language model (LLM)

A type of AI that can process and produce natural language text. It learns from a massive amount of data gathered from sources like books, articles, webpages, and images to discover patterns and rules of language.

Machine learning (ML)

A model that typically involve data, code, and model outputs, while AI systems have other socio-technical components, such as user interfaces. A ML model is trained to recognize certain types of patterns and then uses an algorithm to make predictions about new data.

Natural language processing (NLP)

The ability of a computer program to understand human language as it is spoken and written—it is a type of artificial intelligence.

Neural network

A machine learning model that uses algorithms to mimic the human brain.

Small language model (SLM)

A compact AI model for processing human language, using fewer neural network parameters and training data than large language models (LLMs). SLMs require less computational power and memory, making them ideal for mobile and resource-constrained environments.

Training

A term that refers to providing a machine learning model's algorithm with a given dataset for processing and identifying patterns that the model will then use for performing predictive tasks in its deployment setting.

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