Microsoft

Microsoft Education AI Toolkit

A navigator for education institutions to plan their AI journey

Contents

Overview

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 leaders 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 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.

Paige Johnson

Vice President Public Sector,Financial Services, and Media Industry 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.

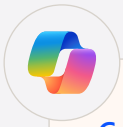
Using Microsoft 365 Copilot Chat

Microsoft 365 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, 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.

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.

Different features of Copilot

Image generation: Leverage Copilot's Designer image creator to generate logos, drawings, visual aids, or other images 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.

Tip: Use Copilot 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 to explore this and other PDFs by summarizing or extracting insights. To get started, attach the AI Toolkit PDF in Copilot and ask it to:

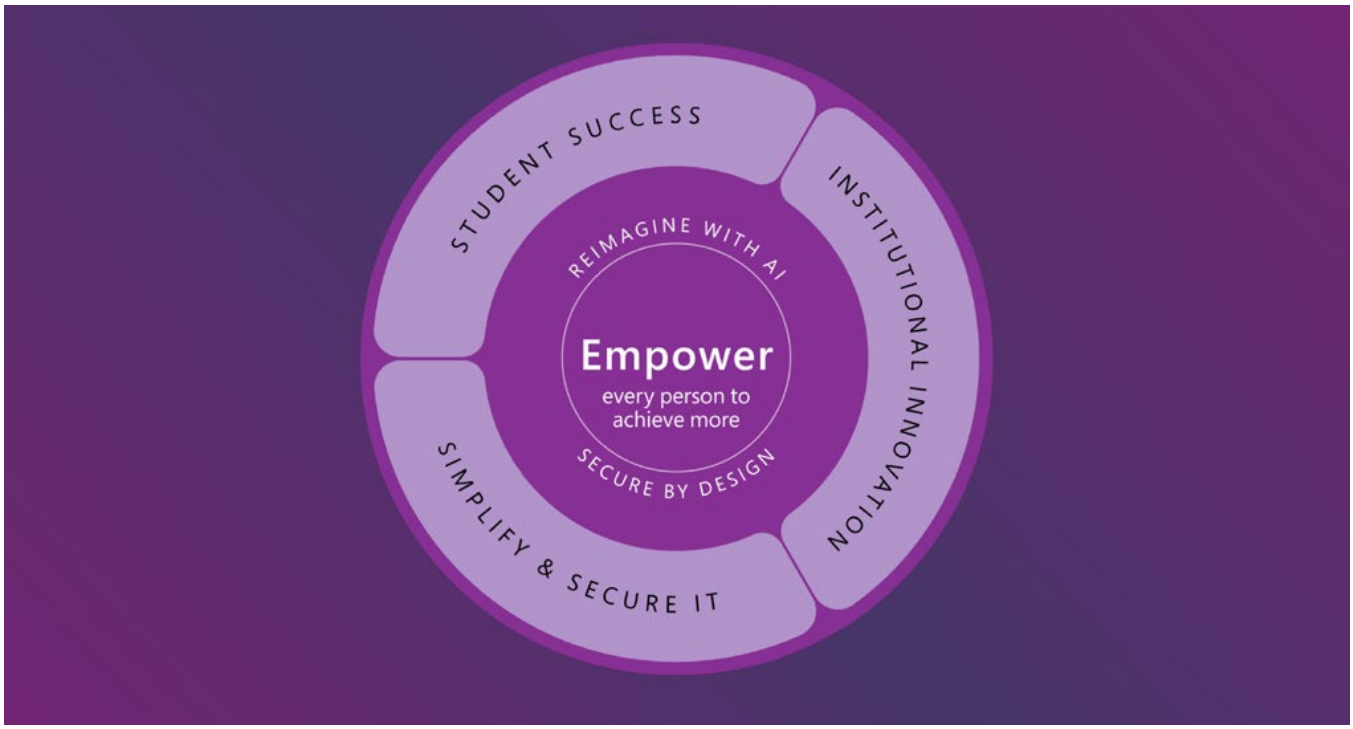
- Summarize the section titled "The power of possible."
- Create a concise list of next steps to develop an institutional AI policy for my [K–12 district, high school, or college].

Navigate support for your AI Journey in your language

To support education leaders worldwide, we've translated this toolkit into a number of languages. Now, you can explore resources and strategies in your preferred language to better guide your AI journey.

Language	Link to translated version
Brazilin Portuguese	https://aka.ms/pt-br/eduaitoolkit
Crown English	https://aka.ms/en-gb-eduaitoolkit
English	https://aka.ms/eduaitoolkit
French Canadian	https://aka.ms/fr-ca-eduaitoolkit
French	https://aka.ms/fr-fr-eduaitoolkit
Japanese	https://aka.ms/ja-jp/eduaitoolkit
Korean	https://aka.ms/ko-kr-eduaitoolkit
Saudi Arabian Arabic	https://aka.ms/ar-sa-eduaitoolkit
Spanish	https://aka.ms/es-xl/eduaitoolkit

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



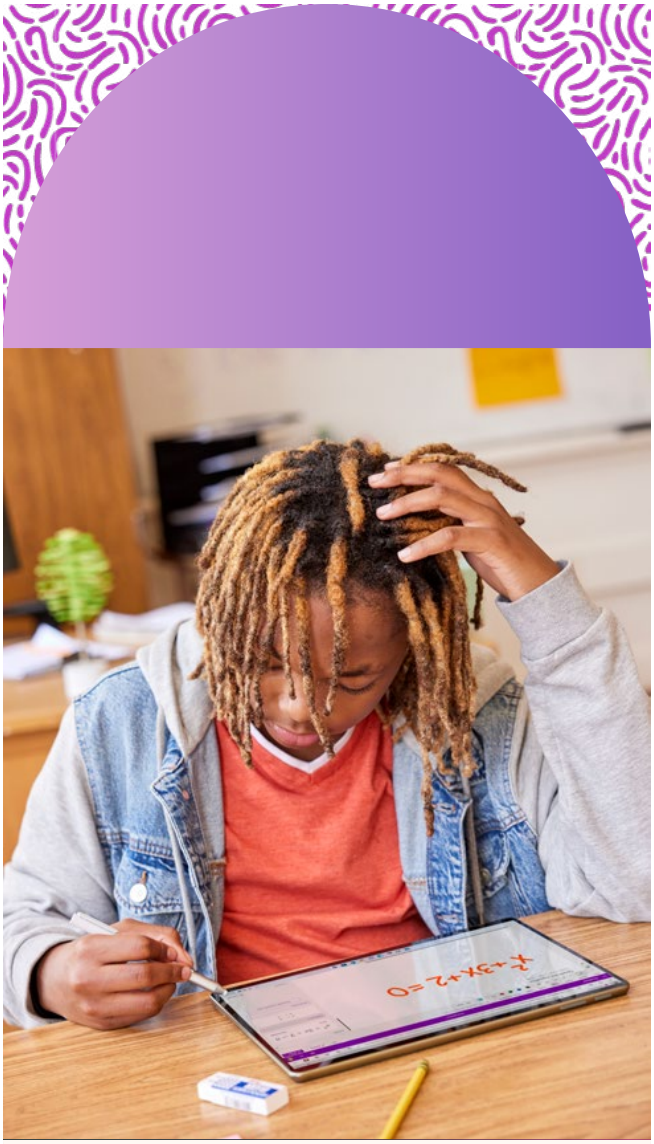
Generative AI is reshaping the way we teach and learn, creating new possibilities across all levels of education—from primary and secondary schools to higher education institutions. For educational leaders, generative AI's potential offers significant opportunities to enhance educational outcomes, spark creativity, and, most importantly, prepare students for a future where AI is woven into many aspects of work and life.

Generative AI tools are versatile and capable of supporting a wide range of educational modalities. From personalized learning experiences to collaborative projects, generative AI can adapt to each student's unique needs. Imagine classrooms with dynamically tailored lessons or virtual tutors in higher education providing instant feedback. These AI-driven experiences are starting to become a reality in some educational environments.

In primary and secondary education, educators use AI tools to create tailored simulations, develop engaging educational activities, and produce interactive storytelling experiences that captivate students.

In higher education, generative AI is enhancing research capabilities, enabling students and faculty to analyze vast datasets and generate new insights with unprecedented speed and accuracy.

Early users show improved student engagement and achievement, as AI streamlines administrative tasks and lesson planning. IT departments benefit from faster data protection, and students gain valuable skills for an AI-driven future. These advancements are making education more efficient, personalized, and aligned with future job market demands.



While generative AI can offer significant benefits in education, addressing concerns such as responsible AI use, data privacy, algorithmic bias, and the need for human interaction in learning are also essential. By integrating AI in ways that complement rather than replace human educators and focusing on data security and fairness, we can build trust and create a more effective and 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 have can use generative AI to foster creativity, curiosity, and a love of learning, preparing students with the skills and mindset they need to thrive in an ever-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.

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

- Explore AI-related foundational vocabulary in **Terms.**
- 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 apply a copilot 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 prompts** sprinkled throughout the section.

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.

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.

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.

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.

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.

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.

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

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.

> "If our era is the next Industrial Revolution, as many claim, AI is surely one of its driving forces."
>
> **Dr. Fei-Fei Li**
> Stanford University

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 implementation in 5 steps

1 **Exploration and planning,** page 56	**Practical steps for education leaders,** page 56	**Engage your community,** page 58	**Define your goals,** page 62 Identify educational goals AI can enhance.
2 **Data and infrastructure prep,** page 66	**Strengthen governance and policies,** page 68	**Break down your data silos,** page 69	**Implement security,** page 72 Protect sensitive data for students and faculty in AI deployment.
3 **Pilot implementation**	**Professional learning,** page 100 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*
- GitHub Copilot†
- Learning Accelerators
- Microsoft Teams for Education
- Minecraft Education AI Foundations
- Khanmigo for Teachers‡

Enhance experiences

- Microsoft 365 Copilot
- Security Copilot
- Copilot in Dynamics 365
- Copilot in Power Automate

Build your own

- Microsoft Copilot Studio
- Microsoft Azure AI Foundry
- Azure OpenAI Service

* Available at no additional cost with enterprise data protection for educators, staff, and students 18 and older.

† GitHub Copilot is free for verified educators and students 13 and older.

‡ Khanmigo for Teachers is free for educators in over 40 countries due to a partnership with Microsoft.

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

An AI-powered chat assistant designed to aid users in web browsing and more. Enterprise data protection is included for education institutions.

AI chat for the web with enterprise data protection

Learn more about Copilot Chat

Microsoft 365 Copilot

An AI-powered productivity tool that includes access to Microsoft Copilot and integrations with Copilot in Word, PowerPoint, Excel, Outlook, Teams, Loop, and other Microsoft 365 applications.

Works alongside you in the applications you use every day

Learn more about Microsoft 365 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 in 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

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 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

Copilot in Intune

AI-powered insights to assist IT admins troubleshoot devices and create policy.

Explore new ways to work smarter and faster using the power of AI

Learn more about Copilot in Intune

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

As Windows 10 support nears its end, educational institutions face an important decision: transition to Windows 11 or upgrade to Copilot+ PCs powered by AI. Both options offer opportunities to enhance teaching and learning.

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.

Windows 10 End of Support

Support for Windows 10 ends on October 14, 2025. After this date, devices running Windows 10 will no longer receive free security updates, feature updates, or technical support.

While your PC will still work, Microsoft recommends upgrading to Windows 11 to help you maintain security.

Microsoft also offers an Extended Security Updates (ESU) program. The ESU program provides critical and important security updates for an additional fee.

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.

Copilot Chat vs M365 Copilot

What's the difference?

Microsoft 365 Copilot and Copilot Chat offer unique features for your organization. While both use generative AI, Microsoft 365 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**

○ **Pay as you go**

Function	**Features**	**Microsoft 365 Copilot Chat** Free + Consumption	**Microsoft 365 Copilot** Paid
Chat	Copilot Chat – Web grounded (powered by GPT 4o)	▲	▲
	Copilot Chat – Work grounded (in your tenant's Microsoft Graph and 3rd party data via Graph connectors)		▲
	Copilot Pages	▲	▲
	File upload	▲	▲
	Code Interpreter	▲	▲
	Enterprise Data Protection (EDP)	▲	▲
	Image generation	▲	▲
Agents	Create agents using Copilot Studio3, including SharePoint agents	▲	▲
	Discover and pin agents	▲	▲
	Use agents grounded on Web data	▲	▲
	Use agents grounded in work data	○	▲
	Use agents that act independently using autonomous actions	○	○
Personal assistant	Copilot reasons over personal work data (e.g. Outlook, OneDrive, meeting transcripts)		▲
	Copilot in Teams (Copilot in Meetings and Meeting Recap)		▲
	Copilot in Outlook (Prioritize inbox, schedule meetings, draft agendas, summarize message threads)		▲
	Copilot in Word (Get suggestions, draft and summarize documents)		▲
	Copilot in Excel (Create formulas and visualization, Python, how-to support)		▲
	Copilot in PowerPoint (Build narratives or translations, generate slides or images aligned to company branding)		▲

Copilot 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. Microsoft Copilot provides 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.

Microsoft 365 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 for education leaders

Education leaders shape and enact policies, make data-based decisions, monitor achievement, implement curricula, and oversee faculty development. Microsoft 365 Copilot helps 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.

Microsoft 365 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 prompt

Summarize the 2024 National Educational Technology Plan with sections on the digital use divide, digital design divide, and the digital access divide. Provide a 1-2 sentence definition of each digital divide and list 5 steps to take to address the divide in each section. The summary should be written in plain language that's understandable by educators. Cite any source material.

Copilot for educators

Educators spend the bulk of their working hours writing lesson plans, assessing understanding, facilitating classroom activities, and completing administrative duties. Microsoft 365 Copilot makes 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.

Microsoft 365 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 and prepare for AI

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 18+	Students 13+	All Students
Copilot Chat Available at no additional cost with Microsoft 365 Education licenses which includes enterprise data protection for educators, staff, and students 18+	Yes	Currently in private preview.	
Microsoft 365 Copilot Per user add-on for a complete AI assistant	Yes		
GitHub Copilot Free for verified educators and students 13+	Yes	Yes	
Learning Accelerators Available at no additional cost for all educators, staff, and students	Yes	Yes	Yes

Microsoft 365 Copilot Chat

When students use Copilot Chat, 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.

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**

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 and other generative AI tools. Consider creating a school usage policy or classroom agreement like one found in the AI Classroom toolkit to establish rules for safe and responsible use.

- **AI as a copilot:** 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

Microsoft's 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.

Get to know Microsoft Learning Accelerators

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.

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.

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.

Speaker Progress

Provides data-driven insights on students' speaking skills.

Speaker Coach

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

Reflect

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

Education Insights

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

AI Snapshots

AI Snapshots provide quick overviews of AI tools and their practical applications. These snapshots help you easily understand and make the most out of our AI tools in your day-to-day tasks. Use them to pinpoint the right AI tool for your needs, follow step-by-step guides for effective use, and explore sample prompts to drive your success.

AI Snapshots index

AI Theme	Scenario	Job Title	Page in toolkit
Student success	Transforming student engagement with relatable and relevant content	K-12 teacher	page 27
	Supporting students with AI-driven insights	Dean of students	page 28
	Sparking students' curiosity with AI-powered teaching assistants	Elementary teacher	page 29
	Saving time and improving instructional clarity with clear, age appropriate, and inclusive language	Secondary teacher	page 30
	Generating high-quality math assessments and detecting of areas of growth for student knowledge	Elementary teacher	page 31
	Advancing student success with a personalized AI tutor	Academic dean	page 32
Institutional innovation	Improving efficiency in K-12 grant writing	K-12 grant writer	page 33
	Automating transcripts and redactions	Administrative assistant	page 34
	Breaking language barriers in real time for more accessible community engagement	Director of community engagement	page 35
Simplify and secure IT 	Improving cybersecurity with custom cybersecurity promptbooks	IT cybersecurity specialist	page 36

AI Snapshot

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 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. 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 will generate the examples, but don't leave Copilot yet. Copilot can continue the conversation and go deeper. Try asking Copilot:
   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.

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AI Snapshot

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.

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AI Snapshot

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.

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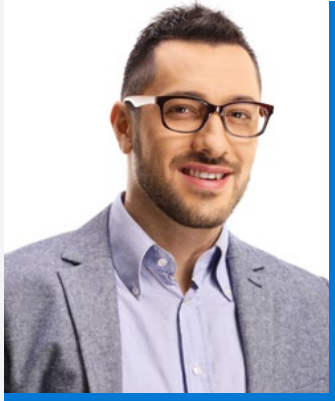
AI Snapshot

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.

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Navigate back to the table of contents

AI Snapshot

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.

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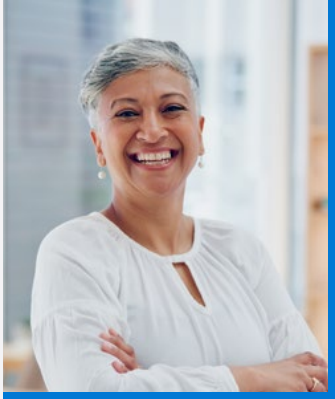
AI Snapshot

Advancing student success with a personalized AI tutor

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

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AI Snapshot

Improving efficiency in K-12 grant writing

How 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
- Microsoft 365 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.

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AI Snapshot

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 Microsoft 365 Copilot in Teams.
    a. Assign Microsoft 365 Copilot add-on licenses for intended users.
    b. Open the **Teams** admin center.
    c. Expand **Meetings** from the navigation pane.
    d. Under **Meetings**, select **Meeting Policies**.
    e. Either select an existing policy or create a new one.
    f. Select **On** or **On only with retained transcript** from the dropdown for the Copilot setting.
    g. 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.*

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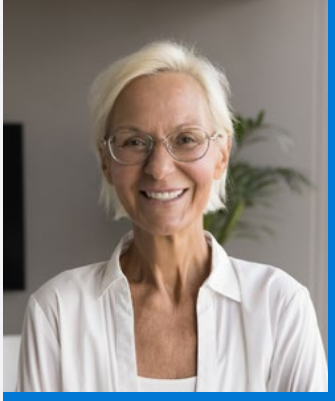
AI Snapshot

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**.*
   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.

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

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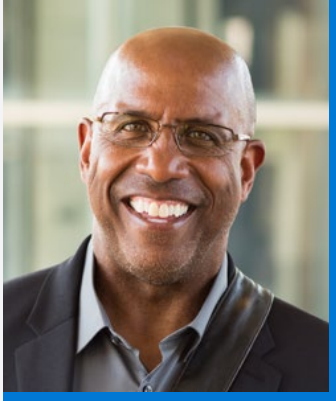
AI Snapshot

Improving cybersecurity with custom cybersecurity promptbooks

How 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.

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Section 2

AI Navigators

A global collection of best practices

AI Navigators section contents

Education AI Navigators

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

Enhance student experience 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

Transform 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

Strengthen cybersecurity and 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 capability 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 to foster inclusive future-ready learning 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.

AI Navigators Index

Pillar	AI Navigator	Institution type	Page in toolkit
Student success	**The Education University of Hong Kong Jockey Club**	K-12	page 40
	New York City Public Schools	K-12	page 41
	California State University, San Marcos	Higher education	page 42
	Tecnológico de Monterrey	Higher education	page 43
	IU International University of Applied Sciences	Higher education	page 44
	Auburn University	Higher education	page 45
	Washington State Office of the Superintendent of Public Instruction	State Department of Education	page 46
	Department for Education, South Australia	Ministry of Education	page 47
Institutional innovation	**Wichita Public Schools**	K-12	page 48
	University of Sydney	Higher education	page 49
	Eduvos	Higher education	page 50
	Sikshana Foundation	Education foundation	page 51
	Indonesia Ministry of Education and Culture	Ministry of Education	page 52
Simplify and secure IT	**Oregon State University**	Higher education	page 53
	University of South Florida	Higher education	page 54

The Education University of Hong Kong Jockey Club Primary School

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

Student success

[The Education University of Hong Kong Jockey Club Primary School (EdUJCPS)] created chatbots using Microsoft Azure OpenAI Service to create a more engaging, personalized, and secure learning environment so educators can 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. 65% of students found the math recommendations from EdUJCPS' chatbot useful, and 60% appreciate the quicker feedback on their homework. Educators have reported that these tools streamline classroom management and identify areas of improvement for more personalized instruction. EdUJCPS plans to expand the use of AI across all grades, building on the early successes.

- 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

AI Tool: Azure OpenAI Service

Learn more

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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.

- 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

AI Tool: Azure OpenAI Service

Learn more

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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.

- 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

AI Tool: Dynamics 365

Watch video

Learn more

← Return to AI Navigators Index (page 39)

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.

- 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

AI Tool: Azure OpenAI Service

Watch video

Learn more

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IU International University of Applied Sciences

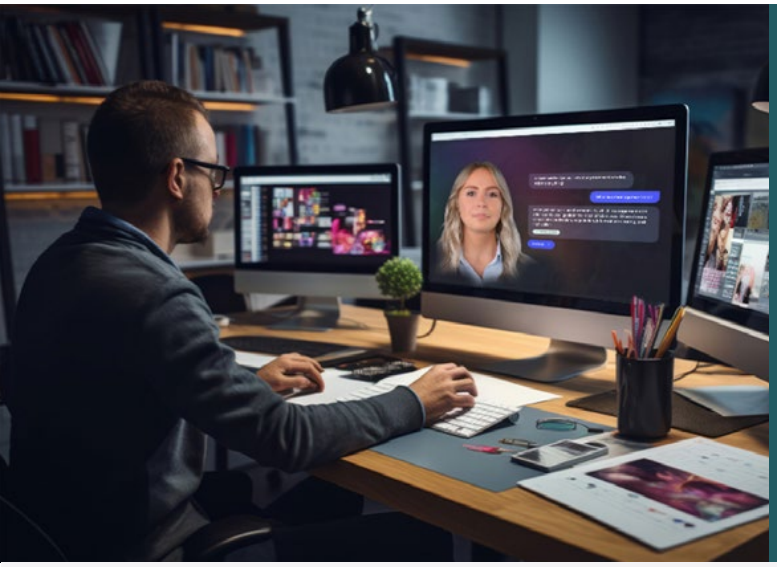
An AI study buddy revolutionizes learning for students.

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.

- 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

AI Tool: Azure OpenAI Service

Learn more

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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 in the U.S. state of Alabama integrated 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, while promoting 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 Microsoft 365 Copilot with 100 faculty members to improve efficiency and hosted an "AI Day" with over 400 attendees, featuring discussions on AI integration, safeguards, and future possibilities.

- 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

AI Tool: Microsoft 365 Copilot Chat

Watch video

Learn more

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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 use in schools, 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 to 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

AI Tool: Human-centered AI guidance[7]

Watch video

Learn more

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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 Microsoft's 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 is empowering students with the skills they need to thrive in the era of AI. EdChat helps students find quick answers before discussing more complex and nuanced questions with their teachers. Students are also learning how to use AI prompts for feedback on their schoolwork, stimulating their creativity and critical thinking.

- 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

AI Tool: Azure OpenAI Service

Watch video

Learn more

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Wichita Public Schools

Educators use 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 existing Microsoft 365 A5 users with Surface devices and Entra ID, the Wichita IT team seamlessly led an early adoption program of Microsoft 365 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.

- 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

AI Tool: Microsoft 365 Copilot Chat

Watch video

Learn more

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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.

- 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

AI Tool: Azure OpenAI Service

Watch video

Learn more

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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 the power of AI in Microsoft 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.

- 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

AI Tool: Dynamics 365

Learn more

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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]

- 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

AI Tool: Azure OpenAI Service

Watch video

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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, or twelve engineers per million students, 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.

- 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

AI Tool: GitHub Copilot

Learn more

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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.

- 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

AI Tool: Security Copilot

Watch video

Learn more

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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.

- 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

AI Tool: Azure OpenAI Service

Watch video

Learn more

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Section 3

Plan

Valuable resources to prepare AI programs

Plan section contents

Exploration and planning

Ensuring responsible AI use in education relies on strong policies, clear guidelines, thoughtful frameworks, and effective tools. For example, safeguarding student data requires both robust policies and training. Leaders play a critical role in collaborating with educators, policymakers, and stakeholders to maximize AI's benefits while maintaining high standards of responsibility. This section helps you prepare leaders for success, engage your community, and define your AI goals.

Educate leadership and key stakeholders

A strong foundation for integrating AI thoughtfully 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:

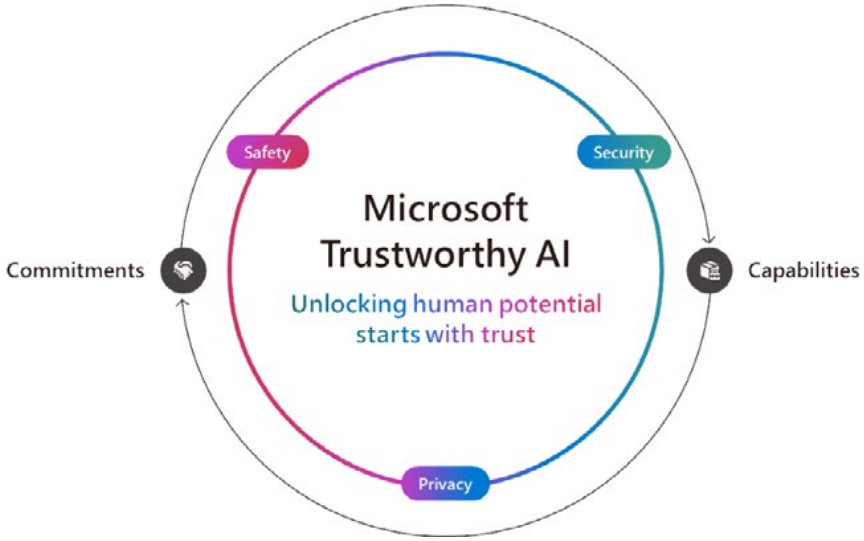
1. What goals drive your use of AI tools?
2. How does your institution currently manage technology adoption? Will that model work for AI?
3. Should you create a new AI policy or adapt existing ones?
4. How will you ensure equitable policy application of AI tool?
5. What legal considerations must you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

Steps	Suggested actions	Resources
Revise policies to address generative AI	Update documents like Acceptable Use Policies to include language on AI use.	Rethinking Acceptable Use Policies in the Age of AI, *District Administration*
Incorporate AI into teaching and learning	Set guidelines for the responsible use of AI in lesson planning and course creation.	Integrating Generative AI into Higher Education, *EDUCAUSE*
Establish AI monitoring and evaluation standards	Create a plan to monitor and assess AI use across your institution.	ChatGPT and Beyond, *Common Sense Education*



Trustworthy AI principles in education

Trustworthy AI principles in education support safety, security, and privacy. Microsoft is dedicated to building products using these principles by default, combining policy commitments, such as our Secure Future Initiative and our Responsible AI principles, with product capabilities.

At the core of Microsoft's approach to Responsible AI are six key principles: fairness, reliability and safety, privacy and security, inclusiveness, transparency, and accountability. These principles are embedded in Microsoft platforms, providing built-in tools and frameworks to support trustworthy AI integration.

Successfully implementing trustworthy and responsible 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 for biases and updating policies as AI evolves.
- Crafting clear AI policies aligned with educational goals.

By leveraging Microsoft's tools and principles, educational institutions foster trust, ensure accountability, and create AI environments that align with community standards.

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.

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.
- Using translation services as required for speakers of other languages.
- Aligning initiatives with shared values that prioritize student success.

Familiarize yourself with these key points to empower you to 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 connecting students. Generative AI tools give educators time back so that they can refocus on what matters most. Learn how educators in Wichita Public Schools used Copilot Chat to become more efficient.

Key point: Accessibility

Accessibility is a key component of equitable schools. 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 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 demonstrating AI expertise, and inspiring support.

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 Copilot 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 Equip your students with AI and tech skills for today—and tomorrow and Empower educators to explore the potential of artificial intelligence courses 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 at the World Economic Forum and McKinsey & Company have highlighted AI's significance in defining the workplace.[12, 13] *We're also exploring guardrails to support safe and effective student use."*

The wider 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, controlled AI learning environments, inspired by successful initiatives like those in Wichita Public Schools. 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 continue to speak with a wide variety of stakeholders.

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, Microsoft 365 Copilot, 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?

"Microsoft's AI solutions, such as Copilot 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 and the 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."

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.

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

Establish what needs policy and what doesn't. Focus on the largest areas of impact.

Learn from peers and familiarize yourself with resources like the TeachAI toolkit, developed with support from Microsoft.[14]

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. Schools are still exploring the full extent of the use and impact of AI. 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 for improvement and explore wording options. 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?
- Which policy model will guide your practice?[15]
- 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.[16]

Academic integrity highlight: Refining a policy

AI's impact extends beyond tool usage to how the entire school community adopts and integrates it. As student use of generative AI grows, schools must define clear academic integrity guidelines. Evaluating the effects of restrictive, encouraging, or hybrid policies is crucial to maintaining educational standards and student success. Here is one possible evolution of an academic integrity policy. Each step in the evolution includes a sample policy which is followed by a quick analysis of its effectiveness.

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 institution]. 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 school]. 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 sidebar from the top right and enter the 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.

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.[17]

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 the many ways that 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 exploring the process of evaluating and drafting an academic integrity policy, apply similar methods to other policy areas. Consider how your team can implement the methods discussed earlier in these new contexts.

Data protection and privacy

Large language models (LLMs) depend on user data to produce results. Data and privacy should be core considerations 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 tool 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 for inclusion or adaptation 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. From adapting content into accessible formats to creating tailored instructional materials, AI offers great promise. 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 leader in a medium-sized educational institution, such as a provost or superintendent, 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 prep

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, as evidenced by rising attacks and evolving social engineering threats.

According to Microsoft Cyber Signals report:

- 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.[18] In 2023, President Biden's Executive Order on AI security called for public and private organizations to ensure AI systems are resilient, function as intended, and are securely developed and deployed.

Schools and universities across the country are esponding 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.[19] With the 2023 launch of the Secure Future Initiative (SFI), Microsoft accelerated its development of AI-based cyber defense to provide machine-speed security for educational institutions.

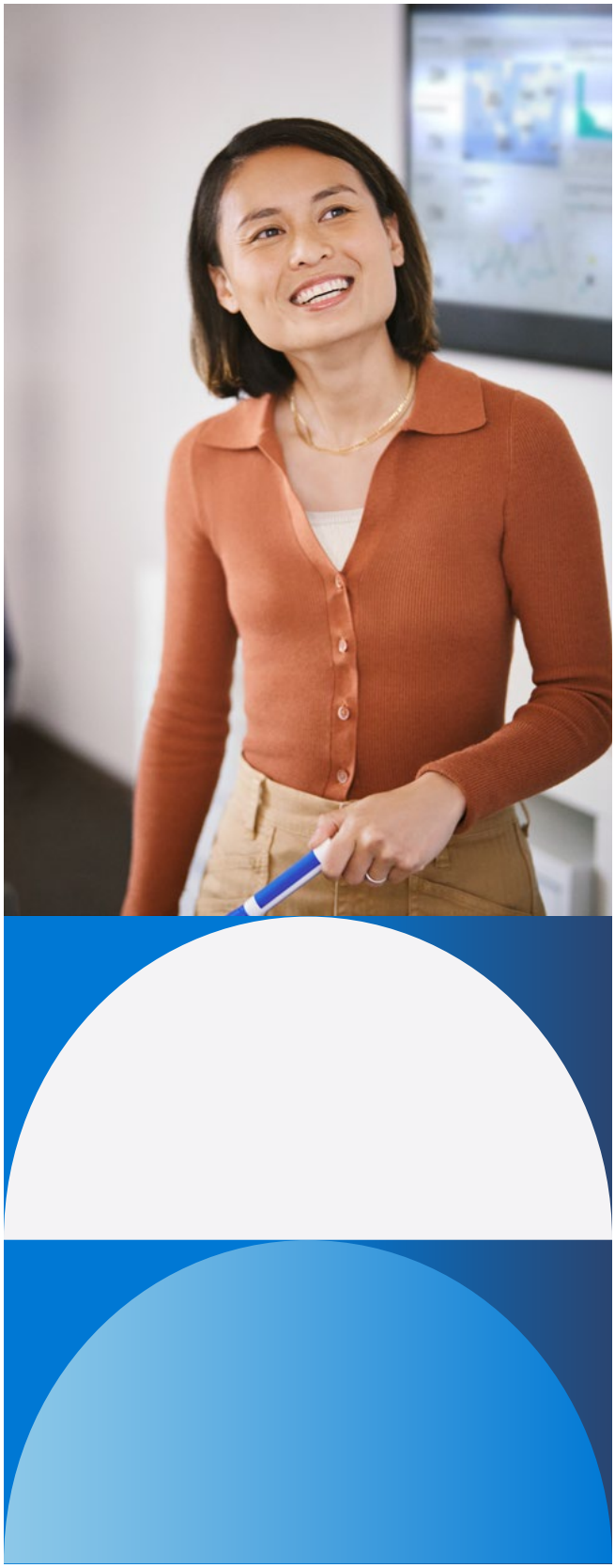
This section of the AI Toolkit offers suggested actions to help you implement generative AI tools safely and securely. You'll also discover how Microsoft's AI systems and Microsoft 365 A3/A5 Education plans enhance your security, giving you the tools to control, protect, and manage AI in your school's 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, while Azure AI Foundry can connect private data sources for customization. Regardless of the AI sytem, consider data requirements and data privacy like 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 Microsoft Copilot and Microsoft 365 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.

A strong data governance framework reinforces security, safeguarding confidentiality, availability, and integrity. Use these governance strategies, along with robust security measures, to help you defend against cyber threats and manage data effectively.

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 staff or infrastructure may need preparation. 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.[20]

- **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?

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.

Utilize AI tools for data governance and cloud consolidation

Migrating data to the cloud offers advantages in education. A governance framework sets rules, roles, and processes for securely managing data flows, while tools support safe and efficient handling. 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, multi-cloud, 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 Microsoft 365 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, learning behaviors, 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 can help you assess solutions you are considering and 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. After all, schools and institutions are responsible protecting student privacy, so AI solutions must provide adequate security.

Reviewing data privacy and security statements helps you make informed, legal decisions. For example, Microsoft publishes how data is used in each one of its AI systems.

- Copilot Chat
- Copilot experiences in Windows
- Microsoft 365 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

In education, collaboration often extends beyond your institution, 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?

Develop an incident response plan

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

1. What constitutes an incident with an AI system?
2. What parts go into an incident response plan?
3. 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 & analysis
Establish monitoring processes and define authorized use vs. incidents.

3. Containment
Develop strategies to minimize threats.

4. Eradication & 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 or the K12 Six Essential Cyber Incident Response Runbook.[21,22]

Section 4

Implement

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

Implement section contents

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.

Provost's office

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

IT department

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

Directors of Technology

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

Ministries of Education

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

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. Microsoft 365 Copilot Chat Learning Accelerators Khanmigo for Teachers	Designed to accelerate institutional workflows and inform decision-making. Microsoft 365 Copilot Copilot Studio Role-based Copilots (Service, Sales, Finance) Copilot in Power Apps Copilot in Dynamics 365 Security Copilot	Built to power complex, custom AI solutions at scale specific to your needs. 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.

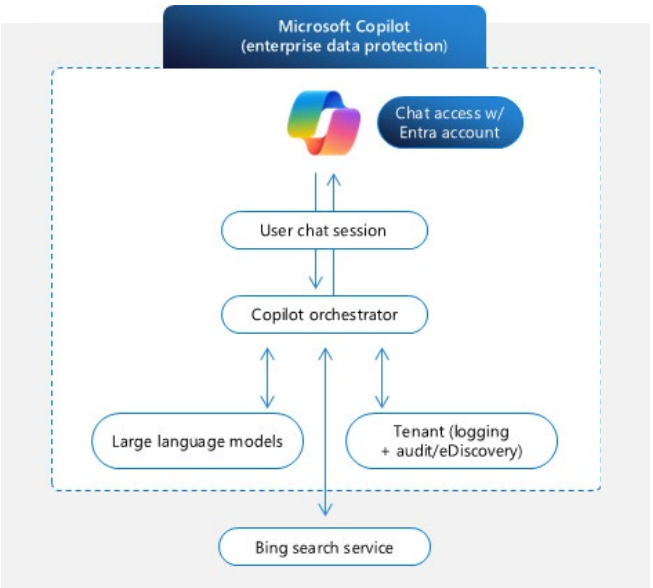
Guide Collection	Topic
Get started with AI implementation To get started, refer to the technical implementation guides for IT teams and leaders to help you set up your Microsoft AI tools. Then, use the step-by-step "how-to" guides to help you and your staff navigate the tools and maximize their impact. 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 (page 78)  Microsoft 365 Copilot (page 81)  Microsoft Copilot Studio (page 84)  Security Copilot (page 87)  Azure AI Foundry (page 90)  Copilot in Dynamics 365 (page 94)  GitHub Copilot (page 95)
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 (page 96) Build professional learning opportunities. (page 100) Discover additional solutions from Microsoft partners. (page 103) Ensure accessibility for all users. (page 104)

Microsoft 365 Copilot Chat

Copilot Chat is an AI assistant that helps you find the right information, create original content, and complete common tasks. It uses a chat interface and natural language prompts to generate responses that summarize, analyze, compare, and more. Copilot Chat is available on the web and mobile devices through Edge or other modern browsers.

When a user signs into Copilot Chat using a free, school-issued Microsoft account, all prompts and responses are covered by Microsoft protections that help secure sensitive data in chat prompts and increase confidence.

- Enterprise data protection: With enterprise data protection, Copilot prompts and responses are protected by the same contractual terms and commitments widely trusted by our customers for their emails in Exchange and files in SharePoint.
- Customer Copyright Commitment: Microsoft defends customers from IP infringement claims related to their use and distribution of the output content generated by Copilot services or Azure AI Foundry as long as customers use the provided guardrails, content filters, and required mitigations.



Microsoft 365 Copilot Chat

Users

- Administrators
- Staff
- Educators
- Higher education students age 18 and older

Implementation guide for Copilot Chat

Preparing for success

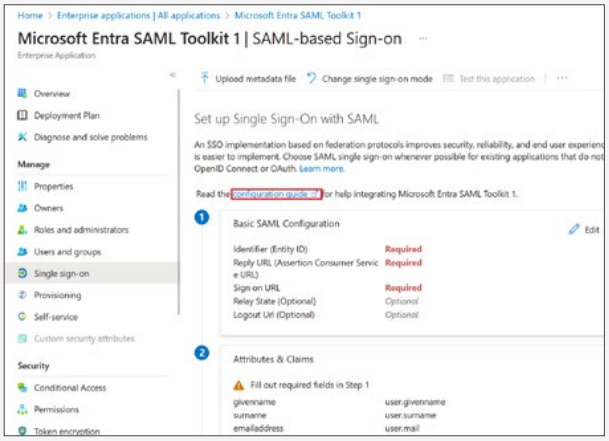
Ready to implement Copilot Chat? Consider these initial steps:

- Purchase Microsoft 365 Education licenses.
- Configure allowlist required IPs.
- Identify faculty, staff, and students you'd like to use Copilot Chat
- Create a plan to rollout Copilot Chat securely and responsibly.
- Review the step-by-step technical overview of how to support your success in the Copilot Chat implementation roadmap.

Technical roadmap

Follow these steps to get started.

1. Open **Entra ID** and select **Single sign-on (SSO)**. Follow the prompts to configure the SAML protocol.



2. Open **PowerShell** in your **Microsoft 365 admin center** and enable the enterprise data protection for Copilot Chat service plan.
3. Copilot Chat uses AI scenarios that access the web and may require connections to specific network endpoints (domains). Refer to the full documentation of network requirements for Microsoft 365 Copilot, which provides a complete list of domains and WebSockets (WSS) that must remain unblocked on your organization's network.
4. Optional: To ensure eligible users cannot access Copilot Chat without enterprise data protection when signed in with their **Entra ID**, implement one of the following:
   a. Use **DNS redirects**.
   b. Use **HTTP header injection**.

Technical guides to follow

- Manage Copilot Chat
- Microsoft 365 Copilot Chat starter kit
- Microsoft Learn: Copilot Chat privacy and protections

How to use Copilot Chat

1. Go to m365copilot.com. Microsoft Copilot Chat is also available as a shortcut in the **Edge browser** sidebar.
2. Sign in with a school-issued Microsoft account.

3. Check for the **Protected badge icon** in Copilot Chat. This badge indicates that enterprise data protection is enabled.
4. Create a prompt by following the Creating effective prompts section of this toolkit.
   a. Type it directly into the chat area.
   b. Speak your prompt using voice input.
   c. **Add a file** to inform the response. Select the **Send** button.
5. Review Copilot's response by checking the listed sources and reading for inaccuracies. Copilot includes footnotes to cite sources within the response and includes links at the end to check source material.

6. Copy Copilot's response.
7. Select **New chat** to clear Copilot and begin a new prompt.

Try Copilot Chat

Superintendent's cabinets or university administrators can quickly draft policy guidelines on generative AI using Copilot Chat. Use the prompt below to see its capabilities.

Copilot prompt

Create a comprehensive policy on plagiarism and academic integrity specifically addressing the use of artificial intelligence (AI) within our school district, which caters to a diverse audience of 20,000 students, their families, and educators. Write in a clear, direct tone that is accessible to a general audience, including young students and individuals without a background in technology. All sources of information and guidelines must be cited accurately and clearly within the document, following APA citation style.

↑ Copilot Chat refinements

Add these refinements into the chat area to revise your response.

- Add a section about the Benefits of AI after the section on Artificial Intelligence.
- Include information from teachai.org in the Benefits of AI section.

Learn more

- Success kit
- Documentation
- Learning hub
- Copilot for all

Microsoft 365 Copilot

Microsoft 365 Copilot combines powerful large language models to enhance productivity and amplify creativity with Microsoft 365 apps. Like Copilot Chat, Microsoft 365 Copilot uses natural language prompts to easily complete tasks in popular applications like Word, PowerPoint, Excel, Outlook, OneNote, Microsoft Teams, and more.

Schools and institutions can purchase Microsoft 365 Copilot as an add-on to their existing Microsoft 365 Education A3 and A5 plan.

Microsoft 365 Copilot

Users

- Administrators
- Staff
- Educators
- Students age 18 and older

Implementation guide for Microsoft 365 Copilot

Preparing for success

Ready to implement Microsoft 365 Copilot? Consider these initial steps:

- Purchase the licenses and software required to introduce Microsoft 365 Copilot to your IT team and staff.
- Identify select education leaders ready to pilot Microsoft 365 Copilot.
- Complete the Microsoft 365 Copilot Optimization Assessment to proactively assess your institution's readiness to start Microsoft 365 Copilot.
- Review the step-by-step technical roadmap to support your implementation.

Technical roadmap

Follow these steps to get started.

1. Every employee using Microsoft 365 Copilot must have a **Microsoft Entra ID** account to authenticate. Refer to our Add or sync users to Microsoft Entra ID guide for more information.
2. Review the results of the Microsoft 365 Copilot Optimization Assessment. Implement the actionable recommendations provided to prepare for a successful project start.
3. Ensure appropriate **Data Security** controls are in place. Assign permissions by role to manage access effectively. Use manual or automatic labeling and policies to prevent data oversharing and data leaks.
4. If there are any concerns about your data security, enable Restricted SharePoint Search as a short-term fix. This allows you to configure up to 100 sites to be on the allow list of sites. Extend to sites containing highly used, low risk content. Once all the data security concerns are addressed, disable **Restricted SharePoint Search**.
5. In the Microsoft 365 admin center, go to **Billing > Licenses** and select **Microsoft 365 Copilot**. Assign licenses to users as needed.
6. Once you've assigned licenses, the Copilot experience will automatically appear for users in **Microsoft 365 Apps**.
7. Analyze usage reports to track Microsoft 365 Copilot adoption and monitor users' last activity in the service.

Technical guides to follow

- Copilot Success Kit
- Microsoft 365 Copilot setup guide
- Microsoft 365 Copilot admin guide
- Microsoft Learn: Prepare your organization for Microsoft 365 Copilot

How to use Microsoft 365 Copilot

1. Go to office.com and sign in with a school-issued Microsoft account. **Note:** Microsoft 365 Copilot is only available after your organization has purchased the product.
2. Open a Microsoft 365 app like **Word**, **PowerPoint**, **Excel**, **Outlook**, or **Teams**. For this guide, open **PowerPoint** to follow the demonstration for using Microsoft 365 Copilot.
3. Select the **Copilot** button in the **Home** ribbon of a new presentation.

4. Select one of the pre-generated prompts to get started or type your own into the chat box. To reference another file, use a / then start typing the file name to search.
5. Select **Send**.Try Microsoft 365 Copilot

Learn more

- How Microsoft 365 Copilot works
- Microsoft 365 Copilot help & learning
- Adoption kit
- Documentation

Elevate your team's collaboration

Looking for ways to enhance collaboration among your educators, faculty, and staff? Copilot Pages offers a dynamic, persistent canvas in Microsoft 365 Copilot for seamless AI collaboration. Transform AI responses into editable content to share, refine, and organize complex information as a team. Play this video to learn how to access Copilot Pages.

Try Microsoft 365 Copilot

A provost's office might want to create a PowerPoint presentation from board meeting notes to share with deans and faculty members. By referencing a Word file with meeting notes, Microsoft 365 Copilot generates a first draft that's ready for editing and reviewing. If your school has an add-on license, create a PowerPoint presentation from your own Word document or try Copilot in a different Microsoft 365 app.

Copilot prompt

As the university's provost, draft a presentation for technology directors expressing interest in Microsoft 365 Copilot, emphasizing its collaborative and data analysis tools. Highlight the potential for improved university workflows and productivity, especially in research and student engagement. Propose a meeting with a Microsoft partner for tailored solutions, stressing the urgency for the upcoming academic year.

↑ Copilot refinements

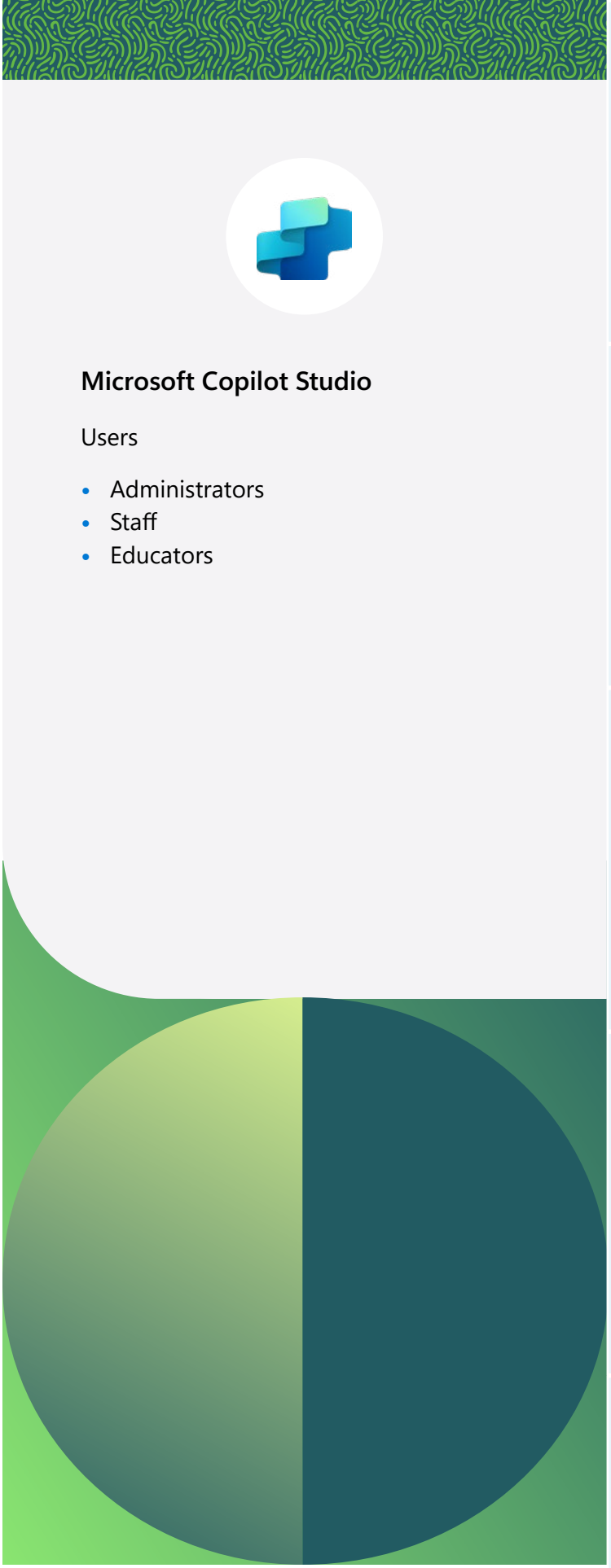
Add these refinements into the chat area to revise your response.

- Include information from microsoft.com/copilot in the paragraph about Microsoft 365 Copilot.
- Add a slide about next steps. Include a sentence about data privacy and security for Microsoft 365 Copilot with citations.

Microsoft Copilot Studio

Microsoft Copilot Studio empowers users to create and customize their own conversational agents for applications employees already work in, like Microsoft Teams, SharePoint, and Microsoft 365 Copilot. Using generative AI and large language models, Copilot Studio enables education institutions to quickly build low-code AI solutions tailored to their unique needs.

Users can add information and knowledge sources to create copilots based on secure data that isn't used to publicly train large language models. These custom copilots simplify tasks, provide responses to predictable scenarios, and enhance productivity and creativity across various workflows.



Microsoft Copilot Studio

Users

- Administrators
- Staff
- Educators

Implementation guide for Copilot Studio

Preparing for success

Ready to implement Copilot Studio? Consider these initial steps:

- Test the capabilities of Copilot Studio by signing up for a free trial. You can disable or enable the ability for users to sign up for a trial themselves by modifying the AllowAdHocSubscriptions flag in your organization settings.
- Purchase the licenses required to introduce Copilot Studio to your school or institution. If your institution has Microsoft 365 Copilot licenses, you may have access to certain features of Copilot Studio. Review the Microsoft Power Platform Licensing Guide to learn more.
- Identify a cohort of education and technology leaders that are looking to solve a problem to pilot Copilot Studio.
- Familiarize yourself with a step-by-step technical roadmap to support your implementation.

Technical roadmap

Follow these steps to get started.

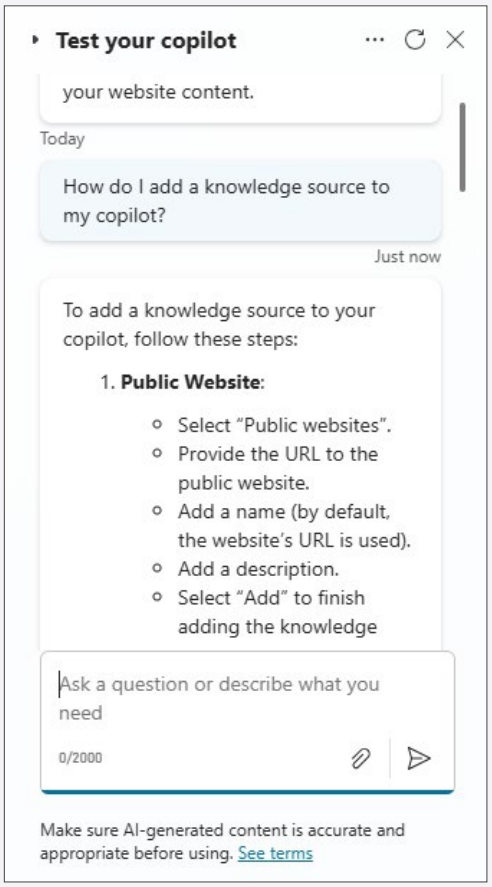
1. Obtain a Copilot Studio tenant license and user licenses from the **Microsoft 365 admin center** or your preferred purchasing channel.
2. Configure appropriate data loss prevention policies for copilots. Use sensitivity labels within **Microsoft Purview** to classify and protect data.
3. Assign licenses to users in the **Microsoft 365 admin center**. Consider assigning licenses to a **Microsoft Entra ID security group** to simplify management.
4. When you purchase a license, you gain capacity for a specified number of billed sessions. Copilot Studio pools this capacity across the entire tenant.
5. Optional: To ensure eligible users cannot access Copilot Chat without enterprise data protection when signed in with their **Entra ID**, implement one of the following:
   a. Use **DNS redirects**.
   b. Use **HTTP header injection**.

Technical guides to follow

- Microsoft Copilot Studio guidance documentation
- Microsoft Learn: Quickstart: Create and deploy a copilot
- Microsoft Learn: Microsoft Copilot Studio overview
- Microsoft Learn Pathway: Create copilots with Microsoft Copilot Studio

How to use Copilot Studio

1. Go to the Microsoft Copilot Studio portal.
2. Sign in with an institution-issued Microsoft account.
3. Select **Create** from the navigation panel.
4. Select **New agent** or choose a provided template to get started.
5. Use the chat to describe what you want your copilot to help users do. Keep your description simple for now and include the conversation style and tone it should use. Copilot Studio uses your responses to fill in the details in name, description, instructions, and knowledge that define your copilot.
6. Add an image to represent your copilot by selecting the copilot icon next to the agent name.
7. Test your copilot by chatting with it in the side panel.



8. To improve your copilot results, select **Edit** in the details card and change your copilot's instructions. Test new instructions by entering another question.

9. Add a knowledge source to inform and improve AI-generated responses. In the **Overview** tab, select **Add Knowledge** then enter the URL or upload the document that you want the copilot to use.

10. When you're happy with the content authored in your copilot, publish it to a website. Select **Publish** to deploy your copilot then send the URL to others to use.

Explore Agent Builder

Unlock Copilot Studio's Agent Builder in Microsoft 365 Copilot to quickly create custom agents for your institution. Streamline operations, save time, and boost efficiency based on your institution's processes and knowledge. Play this video to learn how to build and deploy agents in minutes.

Learn more

- Overview of Copilot Studio agent builder
- Build agents with Copilot Studio Agent Builder
- Publish and manage Copilot Studio Agent Builder agents

Security Copilot

Security Copilot is an AI-powered security solution that enhances IT efficiency and capabilities. It uses an assistive copilot experience and supports end-to-end scenarios for incident response, threat hunting, intelligence gathering, and posture management. It also responds to natural language security questions and learns from user interactions and enterprise preferences.

Open Security Copilot at securitycopilot.microsoft.com. This portal connects licensed Microsoft products and third-party services enabling administrators to run queries that rely on security signals from multiple products.

Schools must have a Microsoft Entra P1 or P2 license and a Microsoft Defender for Endpoint P2 license.

Security Copilot

Users

- IT administrators

Implementation guide for Microsoft Security Copilot

Preparing for success

Ready to implement Security Copilot? Consider these initial steps:

- Purchase the license add-on and security compute units required to introduce Security Copilot to your IT team.
- Identify select IT personnel and leaders ready to test Security Copilot and ensure they have an active Azure subscription.
- Create a plan for how to use Security Copilot that addresses the security concerns of IT and leaders. Consider incident summarization, impact analysis, and guided response.
- Review the step-by-step technical roadmap to support your implementation.

Technical roadmap

Follow these steps to get started.

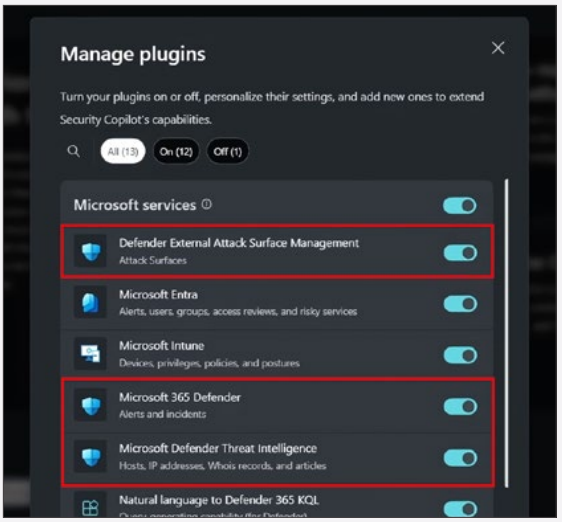
1. Choose a method to provision capacity, either directly through Azure AI Foundry (recommended) or the **Azure portal**. Ensure that you meet the necessary role requirements to proceed.
2. Set up your security capacity. Define the following parameters for your security capacity:
   a. Azure subscription
   b. Resource group
   c. Capacity name
   d. Prompt evaluation location
   e. Number of Security Compute Units (SCUs)
3. Assign the provisioned capacity to the **Security Copilot** environment. Ensure that you have at least a Security Administrator role to proceed.
4. Choose where **Customer Data** will be stored and select the appropriate data sharing options.
5. Review and confirm the default roles that will have access to **Security Copilot**. Apply the principle of least privilege by using roles with minimal permissions to enhance security.
6. Verify all settings and configurations. Once confirmed, finalize the setup process to complete the deployment. By default, all users in your tenant have basic access to the platform, but only those in your organization with extra permission can effectively prompt security data. For better security, consider the following:
   a. Remove all users from the **Contributors** role.
   b. Add security admins back using a defined **security group**, as appropriate, to ensure proper permissions.

Technical guides to follow

- Get started with Microsoft Security Copilot
- Microsoft Learn: Enhance security operations by using Microsoft Security Copilot

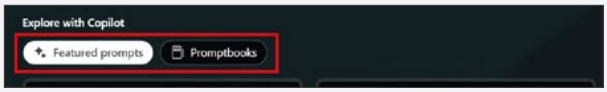
How to use Security Copilot

1. Go to securitycopilot.microsoft.com and sign in with authorized credentials.
2. Select the **Manage plugins** button in the dashboard.
3. Enable Plugins. Toggle the switches for the following plugins:
   a. **Defender External Attack Surface Management**
   b. **Microsoft 365 Defender**
   c. **Microsoft Defender Threat Intelligence**
   d. These plugins are required to demonstrate Security Copilot's capabilities for each service.



4. Close the **Manage plugins** window.
5. Type a prompt into the **chat area** and press **Send**.

6. Security Copilot provides relevant cited information from its security-tuned LLM.
7. For additional ways to use Security Copilot, explore **Featured prompts** for pre-created queries that run common security tasks. Use **Promptbooks** to run a sequence of prompts that build on the previous one.



Try Security Copilot

Directors of Technology and IT administrators often investigate malicious websites that pose cybersecurity risks. Security Copilot provides critical information, like IP addresses, ASNs, and what's known about websites using Microsoft's global threat intelligence. Simply type, *Tell me about the INSERT_URL* domain and Security Copilot will do the research for you.

Copilot prompt

As the Director of Technology managing a small school district's IT staff, compile a desktop reference guide featuring 10 Security Copilot prompts. Each prompt should have a title, a brief explanation, and a ready-to-use command example. Maintain a formal tone throughout the guide.

↑ Copilot refinements

Add these refinements into the chat area to revise your response.

- Include all the same information in the desktop reference guide, but also link each prompt to the website where it came from.
- Include 5 additional prompts focusing on security reporting at the end of the guide.

Learn more

- How Microsoft Security Copilot works
- Documentation
- Onboarding

Azure AI Foundry

Azure AI Foundry is a development environment that schools and institutions can use to build custom copilots from popular LLMs like GPT, DALL-E, and Whisper. With a custom copilot, schools can deploy an AI application that uses internal data for a tuned chat experience.

Azure AI Foundry is supported by Azure OpenAI Service so that administrators can monitor undesirable inputs, outputs, and misuse with their custom copilots. Because Azure AI Foundry is a part of the Azure platform, deployments are backed by Microsoft's enterprise-grade security protection.

Customers with an Azure subscription can add Azure OpenAI Service after requesting access. Once activated, customers can use the Azure AI Foundry platform. Pricing follows a pay-as-you-go (PAYG) structure and includes Provisioned Throughout Units (PTUs) to ensure copilots are ready for use.

Azure AI Foundry

Users

- IT administrators

Implementation guide for Azure AI Foundry

Preparing for success

Ready to implement Azure AI Foundry? Consider these initial steps:

- Purchase the licenses required for Azure AI Foundry and apply for access to Azure OpenAI Service if you plan to use an OpenAI model.
- Review the Overview of Responsible AI Practices and Azure OpenAI's Transparency Note for guidelines and system limitations.
- Communicate with stakeholders to understand their concerns about deploying AI safely and responsibly. Refer to the Engaging your community section for additional information.
- Review the step-by-step technical roadmap to support your implementation.

Technical roadmap

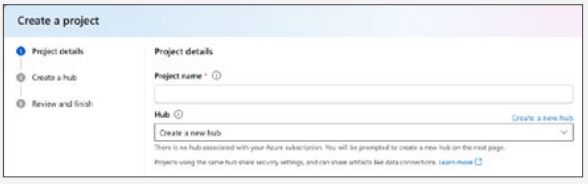
Follow these steps to get started in building your own AI capabilities.

1. Open Azure AI Foundry and create a hub.

Once created, the hub allows developers to create projects and access shared institutional resources without requiring ongoing IT support.

2. After creating a hub, proceed to create a project. Ensure you have one of these roles on the hub:
   a. Azure AI Developer
   b. Contributor
   c. Owner

Select an existing **Azure resource** (including **Azure OpenAI**), or create a new one.



3. Next, deploy an AI model within the project and establish connections to:
   a. Authenticate and consume Microsoft **AI models**.
   b. Use additional resources like **Azure OpenAI** and **Azure Content Safety**.
4. Consider adding data in Azure AI Foundry as a resource for indexing. This approach can help with:
   a. Versioning
   b. Reproducibility
   c. Auditability
   d. Lineage information
   e. Ease of use
5. Once your hub and project are created with the appropriate data access and AI models, begin developing generative AI applications. Refer to the "How to Use Azure AI Foundry" in this toolkit for detailed guidance on developing and deploying these apps.

Technical guides to follow

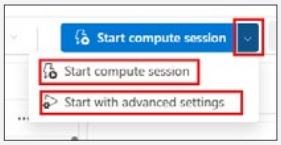
- Microsoft Learn: What is Azure AI Foundry?
- Microsoft Learn: Develop generative AI apps in Azure AI Foundry portal
- Documentation

How to use Azure AI Foundry

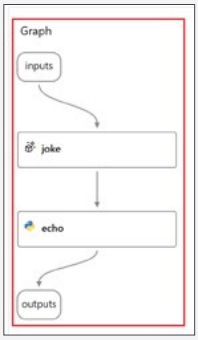
This guide will help you develop and deploy generative AI apps prompt flow, code, or AI Assistants.

Build apps with prompt flow

1. Open Azure AI Foundry and start a new flow by selecting a flow type or a template from the gallery.
2. To run prompt flows, you must create a compute session. Use the default settings or customize the advanced settings.



3. Now, you can start authoring your flow.
   In a flow:
   a. **Nodes** represent specific tools with unique capabilities for data processing, task execution, or algorithmic operations.
   b. Inputs and outputs connect nodes to establish a chain of operations that guides data flow through your application.



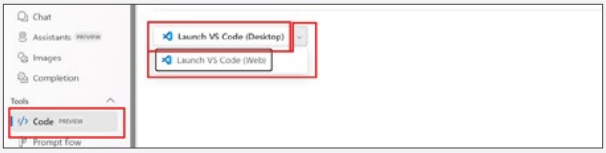
4. Combine different tools to create a flow that accomplishes a wide range of goals. Examples include:
   a. The **LLM tool** to generate text or summarize content.
   b. The **Python tool** to process data and inform subsequent flow components.

If Azure AI Foundry's built-in tools don't meet your requirements, follow this guide to develop custom tools and create a tool package.

5. When your flow is complete, select **Run**. Then select **View outputs** to view the flow results. Continue to the **Deploy apps** section to test and deploy your flow.

Develop apps using code

6. Open your project in **Azure AI Foundry** then launch VS Code.



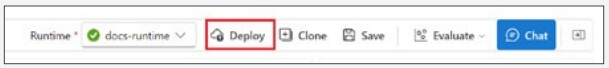
7. Get started with an AI template or use prompt flow to trace your application. You can also use this guide to build a custom chat app in **Python** using the **prompt flow SDK**.
8. Complete and test your code. Once your code is ready, proceed to the **Deploy apps** section.

Create an AI assistant

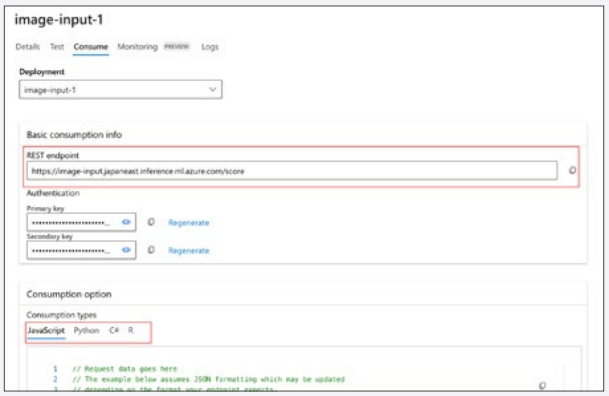
1. Open your project in **Azure AI Foundry** then select **Assistants**. The Assistants playground allows you to explore, prototype, and test AI Assistants without running any code.
2. Select your deployment and start a new assistant. Complete the setup screen with specific instructions, such as: "*You are an AI assistant that writes code to help solve math questions.*"
3. Use one of the latest **GPT-4 models** for optimal performance.
4. Next, enter a question for the assistant and run the model. To confirm that the model used **code interpreter**, ask a follow-up question, such as: "*Show me the code you ran to get this solution.*"
5. Confirm that the generated code is valid, then proceed to the **Deploy Apps** section.

Deploy apps

1. Optional: Select **Chat** to test the flow and observe how your model responds with and without your data. Testing your flow before deployment is recommended best practice.
2. In the **flow editor**, select **Deploy** and complete the deployment wizard.



3. After completing the wizard, select **Create** to deploy your flow.
4. Select **Consume** to view code samples for using the deployed model in your application. You can use the REST endpoint directly or explore additional settings and configurations provided.



5. Grant permissions by assigning roles to a **user-assigned identity** before creating the deployment. Role assignments are only available to the **Owner** of the specific Azure resources.
6. To enhance your understanding of production and optimize performance, use this guide to learn how to enable tracing, collect aggregated metrics, and collect user feedback during inference time of your flow deployment. It's also important to consider how you will monitor quality and token usage of deployed apps based on changes in data and user behavior.

Try Azure AI Foundry

Azure AI Foundry simplifies the process that a K-20 Ministry of Education would follow to build a custom copilot for their schools. It enables IT administrators and developers to easily link school-specific data sources with large language models for secure, tailored results.

Copilot prompt

As a K-20 education ministry leader supporting 50 schools, compose an email to school principals about Azure AI Foundry security and privacy. Explain its function, advantages over generic AI models, and data privacy measures in everyday language with citations. Conclude by announcing upcoming AI chat experiences.

↑ Copilot refinements

Add these refinements into the chat area to revise your response.

- Include the same information in the message, but begin with a customer story such as this one.
- Include all the same information in the desktop reference guide, but also include 5 additional prompts focusing on security reporting at the end of the guide. Link each prompt to the website where it came from.

Learn more

- Microsoft Learn: Plan and prepare to develop AI solutions on Azure
- Documentation for Azure OpenAI Service
- Documentation for Azure AI Foundry

Implementation guide for Copilot in Dynamics 365

Preparing for success

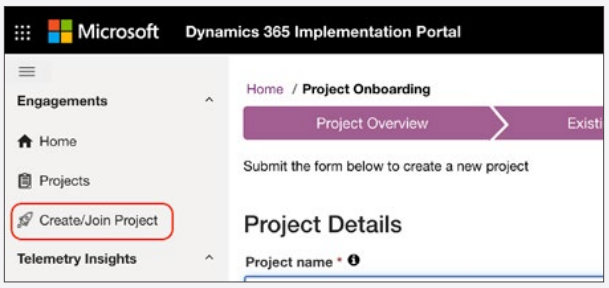
Ready to implement Copilot in Dynamics 365? Consider these initial steps:

- Purchase the IT infrastructure, licenses, and software required to consolidate your current data management systems.
- Work with stakeholders to come up with a comprehensive communication plan that includes students, both prospective and current, as well as faculty and staff.
- Complete the Dynamics 365 Implementation Readiness Review to proactively assess your institution's readiness.
- Review the step-by-step technical roadmap to support your implementation.

Technical roadmap

Follow these steps to get started.

1. Address any categories from the Dynamics 365 Implementation Readiness Review that influenced your results.
2. Sign in to the Dynamics 365 Implementation Portal to begin building your project.
3. From the **Projects** tab, select **Create/Join Project**. Follow the prompts to onboard your project to Dynamics 365.



4. Create a new project or join an existing one. Use the **Implementation Wizard** to capture the scope, partner details, and go-live timeline.
5. From the **Project Profile** tab, manage your project data and define your users.
6. Enhance your project with prebuilt products and features for Dynamics 365. Select **Customer Journeys** to unify your data and gain AI-powered insights.
7. From the **Implementation Guidance** tab, filter and explore resources tailored to your project needs.
8. Conduct project reviews with the **Go-live Readiness Review tool** to identify any potential risks prior to deployment. Review the tool's mitigation recommendations and best practices, then make updates to the project as needed.
9. Deploy the project.

Technical guides to follow

- Documentation
- Get started with AI in Dynamics 365

Implementation guide for GitHub Copilot

Preparing for success

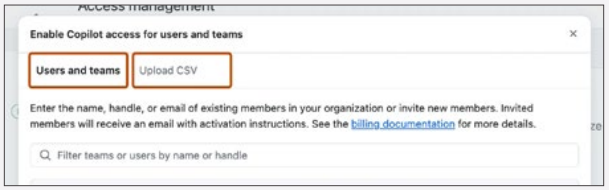
Ready to implement GitHub Copilot? Consider these initial steps:

- Purchase the licenses and software required to introduce GitHub Copilot to your IT team and staff. Learn how to use Copilot for free as a student, educator, or open-source maintainer.
- Find a cohort of education leaders eager to pilot GitHub Copilot.
- Review the step-by-step technical roadmap to support your implementation.

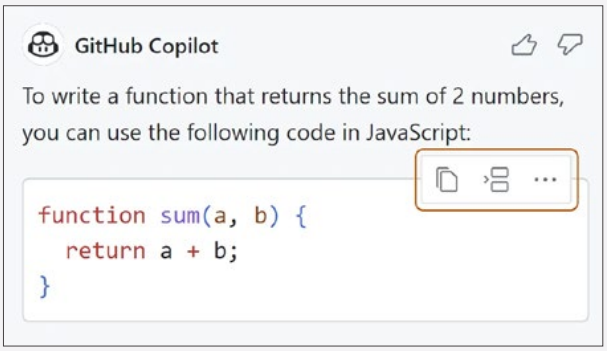
Technical roadmap

Follow these steps to get started.

1. Sign in to **GitHub Copilot**.
2. Grant access to users as needed by selecting one of the two tabs: **Users and teams** or **Upload CSV**.



3. Open **Visual Studio Code** and install the GitHub Copilot extension from the marketplace.
4. In **Visual Studio Code**, create a new JavaScript file (*.js).
5. Select the **Copilot Chat** icon in the Visual Studio Code activity bar to open the Copilot Chat window.



Technical guides to follow

- GitHub Copilot
- GitHub Copilot Quickstart Guide
- About GitHub Copilot

Creating effective prompts

To get the most out of Microsoft Copilot, 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 5 different analogies that are culturally diverse to help students remember the 3 three stages of cell respiration.
- How might I make the lecture more interactive? Provide 3-5 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. Try different approaches to discover what works best.

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	Don't assume the AI has knowledge outside of the given prompt. Always provide context and set expectations.
Re-purpose a successful prompt	If you create a prompt that works well for one task, try using it as a template and adjust 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 a human. 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, develop a 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.

Copilot prompt

As an experienced school administrator, design a four-tier feedback rubric for fellow administrators to evaluate educators' instructional methods. Include ten formative assessment criteria, align with the school's values and standards, use growth-oriented language, and focus solely on instruction—without replacing existing professional development efforts.

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.

Take professional learning further

The Microsoft Education Prompt-a-thon provides resources for teams to discover and practice essential AI skills specific to education. Explore the Prompt-a-thon resource collection to learn more.

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

The Microsoft AI Skills Navigator recommends personalized learning paths based on your goals and expertise. Visit the AI Skills Navigator to find resources that are right for you on your AI journey.

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	Microsoft AI solution
Khanmigo for Teachers Khan Academy's AI-powered assistant for teachers	• Personalizes learning support • Offers instant feedback for students • Reduces grading workload	Microsoft 365 Copilot
Kahoot! Learning product suite	• Saves time for educators • Improves search and brainstorming • Creates quizzes and presentations	Azure OpenAI Service
Quizlet AI-powered study tools and flashcards	• Improves student retention • Offers personalized study paths • Engages students with interactive content	Microsoft 365 Copilot
DreamBox Learning Adaptive math and reading programs	• Tailors learning to individual student needs • Provides real-time progress tracking • Supports differentiated instruction	Azure AI Foundry
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	Learning Tools Interoperability (LTI) using OneDrive LTI, Teams Meetings LTI, and Teams Classes LTI
Schoology by PowerSchool Learning management system integration	• Fully immersive Teams meetings through LTI • OneDrive LTI support	Learning Tools Interoperability (LTI) using OneDrive LTI, Teams Meetings LTI, and Teams Classes LTI
Blackboard by Anthology Learning management system integration	• OneDrive LTI support	Learning Tools Interoperability (LTI) using OneDrive LTI

Microsoft supports accessible AI

At Microsoft, we believe everyone should have access to technologies that foster inclusivity. 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 the 1.3 billion-plus 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.

Section 5

Research

Research section contents

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.

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.

Mihaela Vorvoreanu, Samir Passi, Shipi Dhanorkar, Amy Heger, & Kathleen Walker.
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 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.

AI in Education: Microsoft Special Report

Microsoft • March 2024

This report synthesizes the latest insights from Microsoft, partner organizations, and academia on the opportunities and challenges of AI in education. Drawing on research findings, the report focuses on four key areas: the need for clear communication and guidelines on AI use, ways to improve operational efficiency and productivity, potential benefits of AI for personalized learning, and the skills students need to prepare for the future.

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.

Microsoft New Future of Work Report 2024

Microsoft • December 2024

This report explores the latest phase in evolving work trends, driven by real-world implementation of generative AI technologies. Building on insights from past research into remote, hybrid, and AI-augmented work, this edition focuses on how large-scale deployments of AI—especially large language models—are actively shaping daily workflows. Drawing from practical applications across industries, the study highlights both the opportunities and challenges of this shift. With actionable insights for researchers and practitioners, it underscores AI's role in enhancing productivity and collaboration, while calling for continued innovation in creating a more effective and inclusive future of work.

Copilot Prompt Gallery

Microsoft • 2024

The Copilot Prompt Gallery provides all the resources necessary to start using Copilot tools. It includes introductory videos, overviews for getting the most out of Copilot in each Microsoft app, examples of effective prompts, tips for better prompting, and information on how Copilot protects your privacy. This page serves as a comprehensive guide to help you begin your journey with Copilot tools.

What's New in Microsoft 365 Copilot

Microsoft • February 2024

This monthly blog brings you the latest updates, features, and more information to help you get the most out of your Microsoft 365 Copilot experience.

Microsoft Copilot Education Scenario Library

Microsoft • March 2024

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

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, titled Into the Digital AI Divide, 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.

LLM Based Math Tutoring: Challenges and Dataset

Pepper Miller, Kristen DiCerbo
Khan Academy • June 2024

This paper investigates the challenges Large Language Models (LLMs) face in real-time math tutoring, emphasizing their accuracy in solving mathematical problems during student interactions. It explores the unique difficulties of this context, categorizes student-LLM interactions, and introduces the Conversation-Based Math Tutoring Accuracy Dataset (CoMTA Dataset) for evaluating LLMs' mathematical accuracy. The study also assesses various models' performance in tutoring scenarios and discusses techniques to enhance accuracy, contributing to the improvement of AI-driven math education.

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.

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

Finding High-Impact Opportunities for AI in Education

IDC and Microsoft • March 2024

International Data Corporation conducted a global study, sponsored by Microsoft, to understand how K-12 and higher education institutions are approaching and benefiting from AI implementation. Educational institutions are adopting AI in classrooms and administrative settings to improve student satisfaction, enable faster innovation, and enhance faculty/staff productivity and operational efficiency. This study includes data on the rise of AI in education, top use cases, the need to advance AI strategies, challenges, and steps towards adoption.

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.

National 4-H Council Youth AI Survey

National 4H Council working together with Hart Research and supported by Microsoft • November 2023

This resource is a national survey of 1,510 young people ages 9-17 by Hart Research and supported by Microsoft. The survey shows that while most young people (66%) express at least some understanding of what generative AI is and how it can be used, many kids (72%) are also seeking support from adults in learning how to use these tools correctly and with confidence. Findings conclude kids as young as age 9 have a solid understanding of generative AI tools and concepts and the adults involved in their learning to also understand and engage with genAI tools.

AI in Education: Where We Are and What Happens Next

Oxford University Press with support from Green Shoots • October 2023

This report provides a comprehensive analysis of AI's role in education, based on insights from a global network of experts. It explores how AI affects teachers and students, highlighting the growing digital divide and varying levels of AI integration across regions. The study emphasizes the need for developing appropriate skills and implementing safeguards against misinformation. It also discusses AI's dual potential to either enhance educational equality or exacerbate the digital divide due to unequal access to technology. The report concludes with five strategic recommendations for school leaders and policymakers to ensure that educational advancements are driving, rather than following, technological adoption, thereby fostering a more inclusive and well-prepared learning environment.

Future-Ready Education: Empowering Secondary School Students with Digital Skills

Capgemini Research Institute • May 2023

This report highlights the critical need for improved digital literacy among students to effectively manage the challenges of a misinformation-rich online environment. It reveals a notable gap in digital confidence particularly among rural secondary students compared to urban peers and discusses the controversial role of AI in education, with a focus on tools like ChatGPT. Despite mixed opinions on AI's educational use, over half of the teachers support its integration into curricula, calling for significant societal and corporate investments in digital education to prepare students for future digital challenges.

Adopting and Adapting to Generative AI in Higher Ed Tech

EDUCAUSE Review • April 2023

The report provides initial insights into generative AI's emergence in higher education, examining its increasing use and the potential long-term implications for staff and institutional operations. The findings reveal that attitudes towards generative AI are becoming more positive, with a growing integration into daily activities within educational institutions. Consequently, there is an urgent need for these institutions to develop appropriate staffing and governance frameworks to manage the adoption and application of generative AI technologies effectively.

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.

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 (2022–2024) 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. Conducting 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. Additionally, students struggled with concept retention when AI assistance was removed. The findings highlight the need for pedagogically sound AI design to maximize educational benefits and effective student-AI interactions.

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 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.

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 audio-responsive 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.

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 distinct types to enhance educational methods. It reviews existing approaches and discusses both the potential benefits and the challenges, emphasizing the need for careful integration of AI to improve learning outcomes, support personalized education, and address technological and pedagogical considerations. The paper serves as a comprehensive guide for educators and curriculum developers on leveraging AI and ML for more effective and interactive learning experiences.

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.

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.

The Era of Generative AI: Transforming Academic Libraries, Education, and Research

Chapter from book: *Empowering Minds: Collaborative Learning Platform for Teachers, Librarians and Researchers*

St. Agnes College • January 2024

The advent of generative AI marks a transformative era, reshaping our interaction with technology across libraries, education, and research. This chapter explores how generative AI not only enhances traditional functions, but also fundamentally alters methodologies in these sectors, offering personalized and efficient solutions that broaden access and engagement. It critically examines the multidimensional impacts—technological, cultural, ethical, and operational—of generative AI, emphasizing the need for a comprehensive approach to harness its potential and navigate its challenges in a rapidly evolving digital landscape.

Math Education with Large Language Models: Perils or Promise?

SSRN *Microsoft researchers are co-authors • December 2023

This study investigates the educational impact of large language models (LLMs) through a pre-registered experiment with 1200 participants, analyzing how LLM-generated explanations influence learning outcomes. The results showed that LLM-based explanations enhanced learning more effectively than merely providing correct answers. Qualitative feedback indicated that this improvement was due to participants adopting the strategies demonstrated in the LLM explanations, making learning more accessible and the problems less challenging.

Revolutionizing Education: Artificial Intelligence Empowered Learning in Higher Education

Cogent Education • December 2023

This study investigates the adoption of AI in higher education, focusing on faculty awareness and its impact on teaching and engagement. Utilizing a quantitative approach with 250 faculty members from globally ranked universities, it explores factors influencing AI adoption and its effects on evaluation methods and faculty engagement. The findings highlight the significant roles of perceived risk, performance expectancy, and awareness in shaping attitudes and behaviors toward AI, affecting its integration and effectiveness in education.

To Ban or Embrace: Students' Perceptions Towards Adopting Advanced AI Chatbots in Schools

Advances in Quantitative Ethnography • October 2023

This paper explores student reactions to ChatGPT, analyzing their responses to an opinion piece in *The New York Times* through the lens of the Theory of Reasoned Action. It reveals that while students recognize ChatGPT as a supportive learning tool, they also express concerns about cheating, misinformation, and fairness. The study examines how students' beliefs, personal experiences, and social expectations shape their views on the potential adoption or banning of ChatGPT in U.S. schools.

Transmission Versus Truth, Imitation Versus Innovation: What Children Can Do That Large Language and Language-and-Vision Models Cannot (Yet)

Perspectives on Psychological Science • October 2023

This research investigates the role of advanced AI models, such as large language models, highlighting their potential as cultural tools that enhance knowledge dissemination. It examines these AI systems' ability to mimic human learning processes and generate new ideas, comparing their capacities to those of human children. The study explores which skills AI can acquire through statistical analysis of vast linguistic data, concluding that achieving the levels of creativity and innovation seen in young children may require more than extensive language and visual data.

What Makes Problem-Solving Practice Effective? Comparing Paper and AI Tutoring

From book: *Responsive and Sustainable Educational Futures*

Carnegie Mellon University • August 2023

This study compares the efficacy of an intelligent tutoring system (ITS) versus traditional paper-based methods for teaching linear graphs to middle school students. It demonstrates that students using the ITS had more than double the opportunities to eventually correct their answers compared to those using paper-based methods. The findings emphasize that while the ITS provides more opportunities for practice and correction, effective instruction remains crucial in maximizing learning gains, suggesting that the quantity of practice opportunities alone may not be the sole factor in educational success.

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.

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

Yueqiao Jin, Lixiang Yan, Vanessa Echeverria, Dragan Gašević, Roberto Martinez-Maldonado
Computers and Education: Artificial Intelligence, Volume 8 • 2025

This study examines global generative AI (GAI) adoption policies in higher education, analyzing 40 universities across six regions through the Diffusion of Innovations Theory. Findings reveal that universities are proactively integrating GAI by emphasizing academic integrity, enhancing teaching practices, and promoting equity. Key policies include ethical guidelines, authentic assessments, and faculty/student training to foster GAI literacy. However, gaps remain in data privacy protections and equitable access. The study highlights the need for clear communication, stakeholder collaboration, and continuous evaluation, offering actionable insights for policymakers to develop inclusive and adaptive GAI strategies in higher education.

HAX Toolkit

Microsoft • October 2024

The Microsoft HAX Toolkit (Human-AI eXperience Toolkit) is a suite of tools designed to help create human-centered AI experiences. Developed through a collaboration between Microsoft Research and Aether, the toolkit includes:

- Guidelines for Human-AI Interaction: Best practices for designing AI systems that interact effectively with people.
- HAX Workbook: A practical guide to applying these guidelines in real-world projects.
- HAX Design Patterns: Reusable solutions for common human-AI interaction challenges.
- HAX Playbook: Strategies for integrating human-centered design into AI development.
- HAX Design Library: A collection of design resources and examples.

This toolkit's goal is to support AI practitioners throughout the product development lifecycle, ensuring that AI systems are designed with the user's needs in mind.

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.

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.

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.

Australian Framework for Generative Artificial Intelligence (AI) in Schools

Australian Department of education • November 2023

The Australian Framework for Generative AI in Schools seeks to guide the responsible and ethical use of generative AI tools in ways that benefit students, schools, and society. The framework supports all people connected with school education including school leaders, teachers, support staff, service providers, parents, guardians, students, and policy makers.

Guidance for Generative AI in Education and Research

UNESCO • September 2023

UNESCO's first global guidance on generative AI in education to support countries to implement immediate actions, plan long-term policies, and develop human capacity to ensure a human-centered vision of these new technologies.

Generative Artificial Intelligence for Education and Pedagogy

Cornell University Center for Teaching Innovation • July 2023

This Cornell University report provides guidance on using generative AI in education. The report outlines its potential to enhance personalized learning and accessibility, while also recognizing the risks it poses, such as academic dishonesty and embedded biases. It recommends a flexible approach allowing educators to either prohibit, allow with strict attribution, or encourage the use of AI tools. The report includes guidelines for ensuring academic integrity, safeguarding privacy, and promoting equitable access to these technologies.

Department of Education Office of Educational Technology: Artificial Intelligence and the Future of Teaching and Learning

U.S. Department of Education • May 2023

The U.S. Department of Education Office of Educational Technology's new policy report, addresses the clear need for sharing knowledge, engaging educators, and refining technology plans and policies for AI use in education. The report describes AI as a rapidly-advancing set of technologies for recognizing patterns in data and automating actions and guides educators in understanding what these emerging technologies can do to advance educational goals—while evaluating and limiting key 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.

To Advance AI Use in Education, Focus on Understanding Educators

International Journal of Artificial Intelligence in Education • June 2023

This article examines the social-psychological and contextual factors influencing educators' perceptions and adoption of Artificial Intelligence in Education (AIED). It highlights the importance of understanding educators' trust, attitudes, and the role of predictive learning analytics in improving educational outcomes. The paper advocates for research focused on the psychological aspects of technology acceptance and the ethical implications of explainable AI in educational settings.

ChatGPT is Going to Change Education, Not Destroy It

MIT Technology Review • April 2023

This article examines AI's evolving role in education, focusing on the swift response to ChatGPT, including concerns about academic integrity and student cheating. It reassesses ChatGPT's potential as a teaching aid to enhance learning. The article notes challenges in adopting new tech and emerging strategies to address them. It concludes by considering AI's long-term impact, stressing careful integration and the promise of personalized learning with tools like ChatGPT.

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

Frequently asked questions

How can I evaluate student work that uses generative AI?

To evaluate student work involving generative AI, establish criteria that focus on critical thinking, problem-solving, and creativity, while ensuring students understand and articulate AI's role in their process. For example, you can assess their ability to critically evaluate the AI-generated content as compared to non-AI content as part of literature reviews and other content analysis.

Do these AI solutions provide analytics and reporting features that can help educators track student progress, identify learning gaps, and inform instructional decisions?

AI solutions often include analytics and reporting tools, enabling educators to monitor student performance, pinpoint learning gaps, and guide instructional strategies. Customizations using Azure OpenAI Service and Microsoft Fabric can help provide detailed insights and analysis. See the AI Navigators to review examples.

Endnotes

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