



Microsoft Education AI Toolkit

A navigator
for education
institutions
to plan their
AI journey

Welcome to the Microsoft Education AI Toolkit

Generative AI technologies like Microsoft Copilot are changing the way we research, work, and study and we share your excitement in how they are already being used. 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. 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.

In the pages that follow, you'll be introduced to a variety of technologies including Microsoft Copilot, Copilot for Microsoft 365, Copilot in Windows, GitHub Copilot, and Azure AI Studio 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.

At Microsoft, 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 that serve as your copilot in teaching, learning, and supporting your institution. My hope is that all our AI tools will help you make progress in accelerating learning, improving efficiencies, and bolstering your approach to cybersecurity.

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.

Yours sincerely,

Paige Johnson

Paige Johnson
Vice President, Education
Microsoft Corporation



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How to use this resource

The Microsoft Education AI Toolkit is intended for education leaders—at universities, primary and secondary schools, and state departments and ministries of education. The goal is to provide leaders with knowledge, strategies, and suggestions to help them progress on their journey using generative AI technologies.

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

Using Microsoft Copilot

[Microsoft Copilot](#) is your everyday AI assistant which you can use to be more productive, boost creativity, and stay connected with your colleagues. There are several ways to access Copilot including any modern web browser, on your computer, and even on your mobile devices as a standalone application.

For education customers, Microsoft Copilot is free to use with your Microsoft login. When you use your academic credentials, you will have access to data and copyright protection. As you read through this guide, you'll encounter pre-scripted AI prompts which, when selected, will open so you can experience the tool for yourself. Depending on your default browser, you may have to select enter for the pre-scripted prompt like the one below to activate and return a result.

Microsoft Copilot provides three conversation styles, or modes: *More Creative*, *More Balanced*, and *More Precise*. When experimenting with the prompts in this toolkit, try the different conversation styles to help improve your results.



Copilot prompt



Assume the role of an education institution leader such as a provost, dean, or superintendent for a medium-sized institution with over 10,000 students and provide a set of five guiding questions and summary responses for my education institution to consider ensuring the responsible use of generative AI.

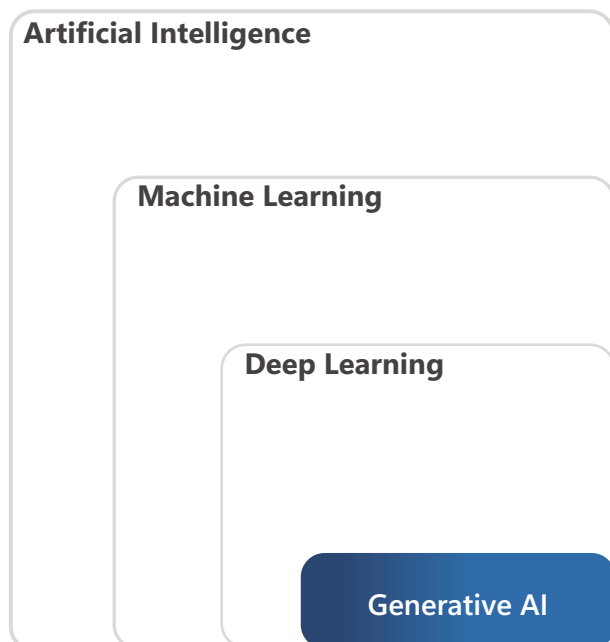


Introduction to AI

With the release of ChatGPT in late 2022, generative AI has emerged as one of the most talked about technologies since the emergence of the internet in the mid-1990's. It has transformed the technological landscape and is already impacting the worlds of work, education, and entertainment. At its core, generative AI leverages complex algorithms and vast datasets to generate new, original content ranging from text, images, music and more.

Understanding some of the foundational concepts of AI technology is critical for your role in making decisions about how best to implement to drive your goals and create a more equitable future for students. As an IT and education leader, you are at the forefront of integrating these technological advancements into educational practice. You understand the delicate balance between leveraging AI for enhancing educational outcomes and ensuring responsible and equitable access to these tools.

This section of the Microsoft Education AI Toolkit offers practical insights, information, and strategies for navigating AI's complexities in education, providing a foundational understanding before we look at customer stories, technical implementations, and security concerns. It includes dedicated sections for IT departments and school leaders offering specific insights and guidance for using Microsoft's AI powered tools.



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.



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 Large Language Model is a computer program that can read and write natural language, such as English or Spanish. It learns from a huge amount of text data, such as books, websites, and newspapers or other specific data sets. It can perform various tasks, such as summarizing articles, answering questions, or generating essays.

Machine Learning (ML) model

Machine learning (ML) models typically involve data, code, and model outputs, while AI systems have other socio-technical components, such as user interfaces. An 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)

A branch of artificial intelligence (AI); It is the application of machine learning algorithms to the analysis, understanding, and manipulation of written or spoken examples of human language.

Neural Network

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

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 emerged in the 1950s when early pioneers like Alan Turing laid the groundwork for machine intelligence, posing the question of whether machines could exhibit human-like thinking. In 1956, researchers met at the Dartmouth Conference to explore the idea of creating machines that could think like humans—this is considered the beginning of AI.

Throughout the following decades, AI garnered periods of enthusiasm and skepticism. However, as computers have become more powerful, and we have more data and better algorithms, AI has advanced, especially the subset of AI called machine learning (ML). Neural networks and deep learning techniques have made ML more powerful and useful. Advancements in Natural Language Processing (NLP) have enabled machines to understand, interpret, and generate human language making AI even more accessible to a diverse group of users.

Today, AI is used in many parts of our lives, from virtual assistants and recommendation systems to autonomous vehicles and diagnostic tools. Smart home devices, email filtering, and language translation apps also use AI. An area of significant advancement in AI technology is generative AI. Generative AI allows any user to prompt the tool to create text, images, code snippets and more. What sets generative AI apart is that it makes creating things easy for everyone, even if they don't have special technical skills. It offers a simple way for all users to make their own content.



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 of how AI is currently used in educational settings from personalizing learning to helping with administrative efficiency.



AI and the future of work

Artificial Intelligence, including generative AI, is significantly transforming the landscape of work, necessitating a reevaluation of the skills required in the workforce. As AI integrates into various industries, it creates new opportunities that require a blend of technical proficiency and soft skills like critical thinking and emotional intelligence. Recognizing these shifts, reports from professional organizations underscore the urgency for an updated skills framework, highlighting a growing demand for a workforce adept at navigating a technology-driven environment.

This evolution in the job market calls for a corresponding shift in educational models. Traditional curricula, often criticized for their slow adaptation to technological advancements, must transition towards more dynamic, personalized learning experiences that not only foster technical literacy but also cultivate the soft skills essential for the AI era like critical thinking and meta-cognition. These skills are essential for understanding AI and harnessing its potential. Proficiency in prompt design is also crucial for effective information retrieval and content creation.

The path forward involves strategic planning that integrates AI and future skills into curricula, fostering partnerships with technology companies and creating a culture that values innovation and adaptability.

Our evolving educational landscape emphasizes the shift from creating content to analyzing and integrating skills, driven by AI's capacity to rapidly generate and locate content. However, it's important to recognize that generative AI isn't perfect and can sometimes produce inaccurate information or fabrications. Students must be adept at identifying errors and inaccuracies.

To succeed in an AI collaborative world, students, educators, perhaps every member of an educational community must adapt or learn new skills like how to prioritize, delegate, proof, review, and master efficiency. Equipping students and educators with these skills is essential for success in an AI collaborative world.

"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



Get to know the Microsoft Copilot tools



Microsoft Copilot

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

AI chat for the web with commercial data protection

[Learn more about Microsoft Copilot](#)



Copilot for Microsoft 365

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 Copilot for Microsoft 365](#)



Copilot in Windows

Copilot in Windows is 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 in Windows](#)



Copilot for Security

Security-focused generative AI solution enhancing defender 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 Copilot for Security

[Learn more about Copilot for Security](#)



Get to know the Microsoft Copilot tools



Copilot for Dynamics 365

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

Turbocharge your staff with a copilot for every job role

[Learn more about Copilot for Dynamics 365](#)



Copilot for Power Platform

Microsoft Copilot for Power Platform is a tool that helps educational users create and customize apps, workflows, and chatbots for their schools. It uses artificial intelligence to generate code, suggestions, and solutions based on natural language inputs.

Imagine it, describe it, and Power Platform builds it

[Learn more about Copilot for Power Platform](#)



GitHub Copilot

GitHub Copilot is 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](#)

Starting October 1, 2023, Microsoft is offering to defend customers from IP infringement claims arising from the customer's use and distribution of the output content generated by Microsoft's Copilot services.



Microsoft AI tools for IT education leaders

For IT Decision Makers (ITDMs) and educational leaders navigating the complex landscape of modern technology management, the integration of AI into your ecosystems offers excellent opportunity. AI can automate tasks, analyze data for insights, and improve decision-making, supporting innovation and efficiency. Leaders like you face various challenges like infrastructure management, software integration, cybersecurity, data management, and technical support. AI tools can streamline workflows and enhance adaptability in the evolving education landscape. Explore the Microsoft tools below, then experiment with the included prompts to see Copilot in action.



Microsoft Copilot for IT education leaders

Microsoft Copilot can help you boost your productivity, streamline workflows, write documentation, create code snippets and more. It can optimize processes like doing an initial review of your policies and offering suggestions. Copilot becomes your assistant, unlocking time and energy for you to focus on the success of your institution.



Copilot instructions

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

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 Microsoft 365 for IT education leaders

Microsoft 365 Copilot leverages AI to help users with various tasks in their work environment. It is integrated into Teams, Word, Outlook, PowerPoint, Excel, and other Microsoft 365 apps. It can summarize meeting notes or long emails, create task lists and action items, edit, or revise documents and create engaging presentations and charts from your documents, notes, or prompts.



Microsoft Fabric for IT education leaders

Consolidate all your data with Microsoft Fabric, which offers a comprehensive analytics solution. Benefit from a variety of tools like data lake, data engineering, data science, data warehouse, real-time analytics, and business intelligence. It streamlines data engineering and analytics by integrating these tools into a unified environment. Use Microsoft Fabric to handle large and complex data sets and meet the evolving needs of your organization. Combined with Microsoft Purview, a unified data governance service that uses AI to ensure data compliance and security, you can manage and protect your data efficiently and effectively.



Copilot for Security for IT education leaders

Microsoft Copilot for Security is an AI-driven security solution that facilitates rapid response to cyber threats and risk evaluation. It works with Microsoft 365 Defender, Microsoft Sentinel, Microsoft Intune, and third-party services. Given the increased vulnerability of educational institutions to cyber threats, especially with limited budgets, Copilot for Security helps conserve resources by offering the following features:

- **Incident response:** Summarize information about an incident by enhancing incident details with context from data sources, assess its impact, and provide guidance to analysts on how to take remediation steps with guided suggestions.
- **Security posture management:** Provides information on events that might expose organizations to a known threat. Analysts are provided prescriptive guidance on how to protect against those potential vulnerabilities.
- **Security reporting:** Generates ready-to-share executive summaries or reports on security investigations, publicly disclosed vulnerabilities, or threat actors and their campaigns.

Microsoft Copilot for Security Video

Watch [this video](#) to learn more about how Copilot for Security can help you protect your organization and investigate incidents.



AI-powered Microsoft tools for education leaders

Educational leaders are pivotal in transforming the educational landscape, from primary school to higher education. Your role extends beyond managing the day-to-day tasks; it involves inspiring educational excellence, developing innovative curricular frameworks, overseeing faculty development, and ensuring student success. Microsoft's AI-powered tools can help you achieve these goals and collectively revolutionize the way you work. Explore the range of these Microsoft tools below, and experiment with the included prompts to see how AI can enhance your leadership in education. Tailor these prompts to meet your unique challenges and objectives.



Microsoft Copilot for education leaders

Microsoft Copilot, an innovative AI-powered tool, can help complete so many of your time-consuming tasks. For example, Copilot can help you create curriculum maps, rubrics, and various resources for the classroom. It can automate essential tasks like summarizing reports, generating drafts for email, scheduling meetings, or drafting feedback that you can then personalize. Copilot becomes your assistant, unlocking time and energy for you to focus on the success of your institution.



Copilot instructions

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

Analyze the policy on this page and provide suggestions for improvement that promote equity and inclusion. Consider how the grading policy may be influenced by implicit biases, cultural differences, and socio-economic factors. Provide examples of grading policies that are inclusive and equitable. Your feedback should help identify any potential revisions to improve the overall effectiveness, clarity, and user-friendliness of the policy.





Copilot for Microsoft 365 for education leaders

Copilot for Microsoft 365 works alongside you in the apps you use every day like Teams, Word, Outlook, PowerPoint and Excel. You can boost your productivity and creativity while Copilot assists you with:

- **Generating summaries and action lists:** Summarize and extract key points from Teams discussions, facilitating tasks such as managing faculty meetings and supporting decision-making processes.
- **Enhancing editing efficiently:** Offer editing suggestions or drafts from your Word documents, enhancing writing quality and saving valuable time; beneficial for tasks like reviewing and refining important documents such as accreditation reports or school improvement plans.
- **Streamlining email communication and responses:** Summarizing long emails, or draft replies in Outlook and checking for conflicts on your calendar allowing you to manage communication with parents, staff and stakeholders more efficiently.
- **Crafting dynamic PowerPoint presentations:** Creating beautiful presentations in PowerPoint from a simple prompt and information from your documents for academic conferences or board meetings.
- **Instant data visualization:** Analyzing your Excel spreadsheets and creating data visualization in seconds, simplifying complex data sheets. Quickly present enrollment trend or academic performance metrics in a clear manner.



Microsoft Fabric for education leaders

Microsoft Fabric is a powerful analytics solution that enables you to access your centralized data with ease. With a range of tools such as data lake, data engineering, and real-time analytics, all integrated into a unified environment, managing complex institutional and student data becomes a streamlined process. You could access students' engagement and progress across all your grade levels, buildings, or institutional data points to make holistic and informed decisions.

Microsoft Fabric is designed to handle large and intricate data sets, ensuring that you and your team can make informed decisions quickly and efficiently. Additionally, it's integrated with Microsoft Purview Information Protection, an AI-powered unified data governance service, you can be confident that your institution's data is fully compliant and secure.



AI-powered Microsoft tools for educators

Microsoft provides a range of AI-powered tools to help educators become more productive and creative while also offering personalized learning opportunities for their students. These tools include Copilot, Learning Accelerators, and Copilot for Microsoft 365, among others. With these tools, educators can explore the potential of AI in education, enhancing teaching and learning with generative AI, supporting reading fluency practice, and automating daily tasks. Additionally, Microsoft offers training and resources for educators and students to develop AI literacy and skills. By leveraging these tools, educators can focus on what matters most—teaching their students.



Copilot for Microsoft 365 for educators

Copilot for Microsoft 365 works alongside you in the apps you use every day like Teams, Word, Outlook, PowerPoint and Excel. You can boost your productivity and creativity while Copilot for Microsoft 365 helps you:

- **Extend the lesson:** Generating conversation summaries and action items from your Teams meetings. You can use these summaries to review the main points of the lesson, assign homework, and follow up with students who need extra support.
- **Enhance your writing and save time:** Copilot provides editing suggestions or creates drafts from your documents in Word. Use it to generate new content based on your topic and audience, transform text into tables, or check your grammar, spelling, and style.
- **Effectively communicate:** Summarizing long emails, or drafting replies in Outlook to your colleagues, parents, and students. Streamline communication for better understanding and responsiveness.
- **Design presentations:** Transform simple prompts and captured information into beautiful presentations. Generate slides, images, charts, and animations that align with your theme and purpose effortlessly. Create a presentation based on the course syllabus or restructure your slides and add a relevant image.





Microsoft Copilot for educators

Microsoft Copilot uses generative AI to function as a valuable teaching assistant. With Copilot, you can save time by drafting lesson plans, rubrics, and other classroom resources easily. The tool also helps personalize learning by tailoring content, feedback, and guidance to individual students' needs and learning styles. Copilot becomes your assistant, unlocking time and energy for you to focus on the success of your institution.



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.



Microsoft's AI powered solutions for education: Learning Accelerators

Learning Accelerators are tools designed to support learners in catching up, keeping up, and getting ahead in their academic journeys. These tools help streamline the process of reviewing and analyzing data to get to insights faster, not only at the individual student level but also across multiple classrooms and entire schools. By utilizing Learning Accelerators, you can uncover trends, stay well-informed, and make data-driven decisions to enhance the overall learning experience.

Foundational skills



Reading Fluency

Reading Progress
Reading Coach



Numeracy

Math Progress
Math Coach



Well-being

Microsoft Reflect

Future-ready skills



Information Literacy

Search Progress
Search Coach



Presentation

Speaker Progress
Speaker Coach



Section 2 Plan

Coming soon.

Resources
about data
governance,
security, policy
considerations,
and the
responsible use
of AI.



Section 3 Implement

[Navigate back to
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Getting started with Microsoft AI

Sitting down at a computer 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. There's often too little time and too many pressing issues for deep exploration and trial. This section provides instructions, links, and additional resources to help you begin your AI journey.

Consider some of the responsibilities that leaders like yourself assume in your role and how generative AI tools might help you save time or be more efficient.



Superintendent's cabinet

Revise an acceptable use policy for middle and high school students to include emerging technologies like AI.



Provost's office

Analyze data and automatically identify insights in a reporting spreadsheet.



IT Department

Help educators troubleshoot audio or video issues on their devices.



Directors of Technology

Gather IP addresses, ASNs, and known activities of malicious websites that pose cybersecurity risks for students and educators.



K-20 Ministries of Education

Understand key insights from school reporting data.



Microsoft Copilot tools and services

Microsoft Copilot helps you accomplish time-consuming tasks. For most of the tools, all that's needed is a basic understanding of how to get started to begin taking advantage of all that's possible. This means that you can easily write new content like policy frameworks, analyze reporting data in spreadsheets, or conduct research on security threats.

This section provides instructions, links, and additional resources to help you begin your AI journey. Once you know which Microsoft Copilot will help you with a task, just follow the steps and try it for yourself.



Microsoft Copilot

Find the right information, create original content, and get things done quickly without disclosing sensitive data.



Copilot for Microsoft 365

Use content in Microsoft 365 applications like Word, PowerPoint, and Teams to create new information, summarize, and more.



Copilot in Windows

Receive help, get answers, and jump start projects within the Windows 11 operating system.



Copilot for Security

Simplify incident response, threat hunting, intelligence gathering, and posture management.



Azure AI Studio

Build your own custom copilot using GPT, DALL-E, and Whisper large language models.

Microsoft Copilot

Microsoft Copilot is an AI assistant that helps leaders 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 is available on the web and mobile devices through Edge or other modern browsers.

When a user logs into Copilot using a free, school-issued Microsoft account, all prompts and responses are covered by commercial data protection and Microsoft's Customer Copyright Commitment. These features help protect sensitive data when included in chat prompts and increase confidence in using responses from Copilot.

- **Commercial data protection:** Helps safeguard user and organizational data because prompts and responses are not saved when signed in with a school-issued Microsoft account. Microsoft has no eyes-on access, and chat data is not used to train the underlying model.
- **Customer Copyright Commitment** Microsoft defends customers from IP infringement claims arising from the customer's use and distribution of the output content generated by Microsoft's Copilot services or Azure OpenAI Studio so long as the customer used the guardrails and content filters we have built into our products and **implemented required mitigations**.



copilot.microsoft.com

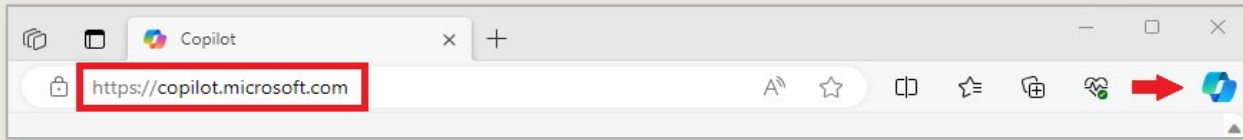
Users

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

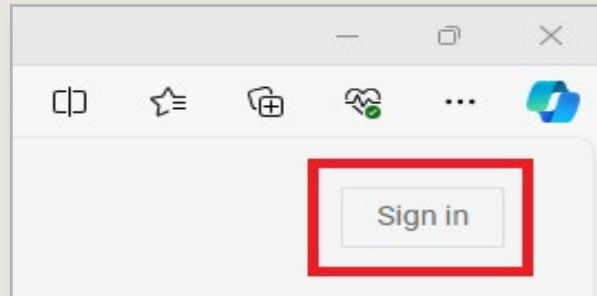


How to use Microsoft Copilot

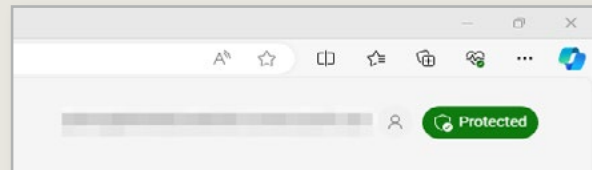
1. Go to copilot.microsoft.com. Microsoft Copilot is also available as a shortcut in the Edge browser sidebar.



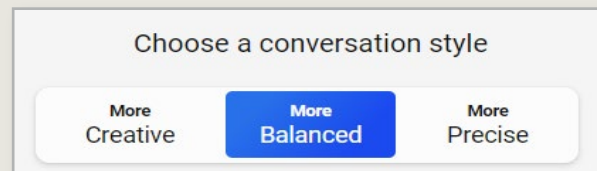
2. Sign in with a school-issued Microsoft account.



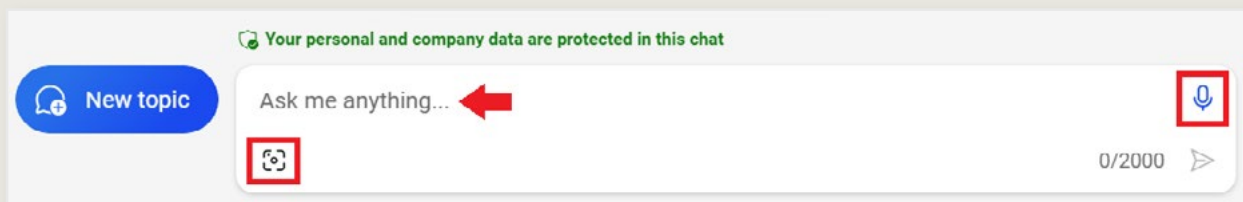
3. Check for a green **Protected** badge in Copilot. This badge indicates that commercial data protection is enabled.



4. Select a conversational style. **Precise** is more search-focused, **Creative** gives responses that are more descriptive, and **Balanced** is somewhere in-between.



5. Create a prompt by following the [Creating effective prompts](#) section of this toolkit. Type the prompt directly into the chat area, use your voice to speak your prompt, or add an image.



6. Select the Send button.

7. Review Copilot's response by checking the listed sources and reading for inaccuracies. Copilot uses footnotes to cite sources within the response and includes links at the end to check source material.

This policy is based on the guidelines and considerations provided by Duke Learning Innovation¹. Penn Foster also provides a similar policy on the use of AI in academic work². Northern Illinois University provides an example policy statement for AI tools³. We encourage all faculty, students, and families to read these policies and consider their stance on AI use in their own work and in their classrooms.

Please note that this policy is not exhaustive and may be updated as needed. If you have any questions or concerns about this policy, please contact your instructor.

¹: <https://learninginnovation.duke.edu/ai-and-teaching-at-duke-2/artificial-intelligence-policies-in-syllabi-guidelines-and-considerations/> ²: <https://www.pennfoster.edu/blog/is-using-ai-to-write-an-essay-cheating> ³: <https://www.niu.edu/citl/resources/guides/class-policies-for-ai-tools.shtml>

Learn more



1



learninginnovation.duke.edu

2



[pennfoster.edu](https://www.pennfoster.edu)

3



[niu.edu](https://www.niu.edu)



1 of 30 responses

8. Copy or download Copilot's response.



9. Select New Topic to clear Copilot and begin a new prompt.



New topic



Try Microsoft Copilot

Superintendent's cabinets or university administrators can quickly draft policy guidelines on generative AI using Microsoft Copilot. Use the prompt below into copilot.microsoft.com to see the output.



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 refinements

Add these refinements into the chat area to revise Microsoft Copilot's response.

- Add a section about the Benefits of AI after the section on Artificial Intelligence.
- Include information from tech.ed.gov/ai/ in the Benefits of AI section.

Learn more

- [Announcing Microsoft Copilot, your everyday AI companion](#)
- [Expanding Microsoft Copilot access in education](#)
- [Adoption Kit](#)
- [Documentation](#)



Copilot for Microsoft 365

Copilot for Microsoft 365 combines powerful large language models to enhance productivity and amplify creativity with Microsoft 365 apps. Like Microsoft Copilot with commercial data protection, Copilot for Microsoft 365 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 Copilot for Microsoft 365 as an add-on to their existing **A3/A5 Microsoft 365 Education plan**.



Copilot for Microsoft 365

Users

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

Overview

Plan

Implement

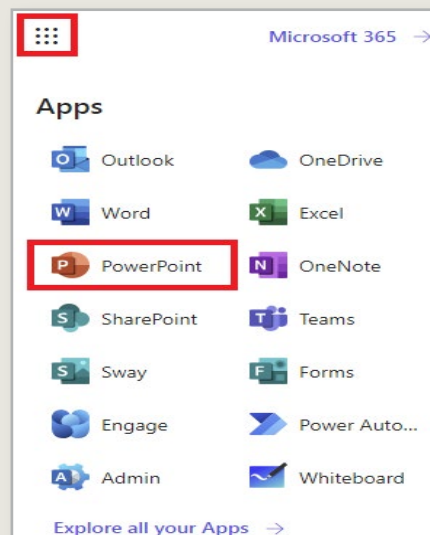
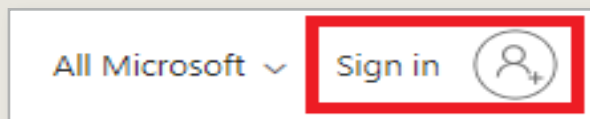
AI Navigators

Research

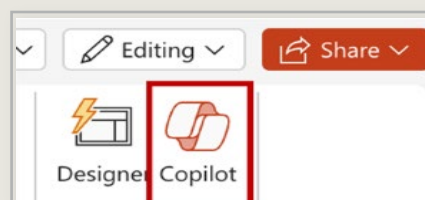


How to use Copilot for Microsoft 365

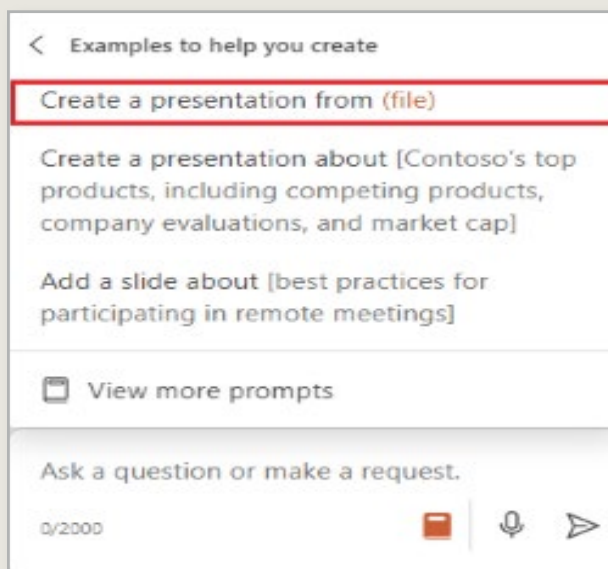
1. Go to office.com and sign in with a school-issued Microsoft account. Copilot for Microsoft 365 is only available after your organization has purchased the product.
2. Open a Microsoft 365 app like Word, PowerPoint, Excel, Outlook, or Teams. The steps in this guide use PowerPoint to demonstrate Copilot for Microsoft 365, so choose this app to follow along.



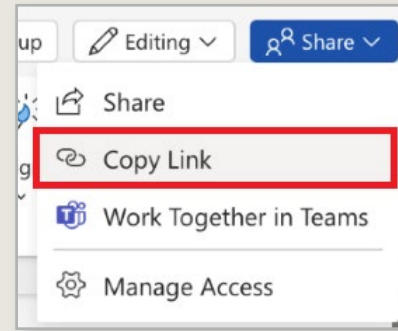
3. Select the **Copilot** button in the **Home** ribbon of a new presentation.



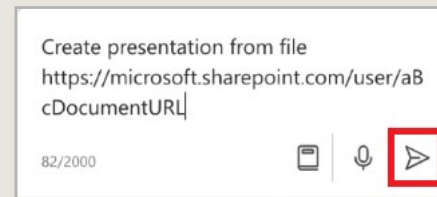
4. Select **Create presentation from (file)**.



5. Open a Word document that contains information that you want to use in the presentation. Select the **Share** button and choose the **Copy** link option.



6. Return to PowerPoint and paste the document link into Copilot. Select the **Send** button.



7. Watch as Copilot creates a presentation from the content in your Word document!



Try Copilot for Microsoft 365

A Provost's office might want to create a PowerPoint presentation from board meeting notes to share with deans and faculty members. By linking Copilot in PowerPoint to a Word file with meeting notes, Copilot for Microsoft 365 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 a different [Microsoft 365 app with Copilot](#).



Copilot prompt

As the university's Provost, draft a concise email to the Technology Director 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 Copilot's response.

- Include information from support microsoft.com/copilot in the paragraph about Copilot for Microsoft 365.
- Add a postscript or PS at the end of the email. Include a sentence about data privacy and security for Copilot for Microsoft 365 with citations.

Learn more

- [How Copilot for Microsoft 365 works](#)
- [Microsoft Copilot, a whole new way to work](#)
- [Copilot for work](#)
- [Adoption kit](#)
- [Documentation](#)



Copilot in Windows

[Copilot in Windows](#) is an AI-powered assistant that provides answers from across the web, supports creativity and collaboration, and assists with tasks on Windows 11 devices. It also offers a convenient way to change Windows settings and launch troubleshooters when issues arise.

Copilot in Windows is built into updated versions of the Windows 11 operating system and runs from the taskbar. It is free to install on Windows devices and is protected by [commercial data protection](#) with a school-issued Microsoft account. Copilot in Windows is built into updated versions of the Windows 11 operating system and runs from the taskbar. It is free to install on Windows devices and is protected by [commercial data protection](#) with a school-issued Microsoft account.



Copilot in Windows

Users

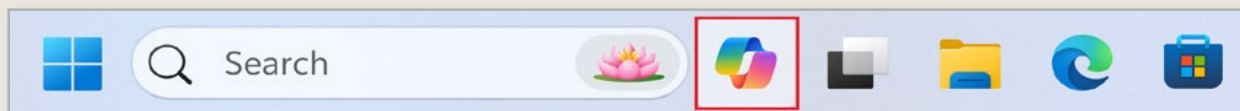
- Administrators
- Staff
- Educators



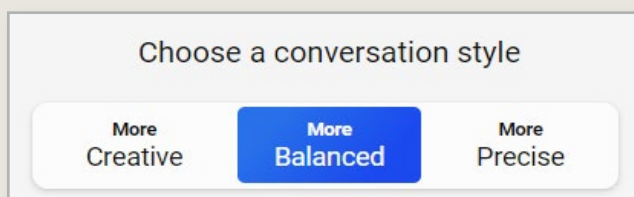
How to use Copilot in Windows

Sign into a Windows device using a school-issued Microsoft account. Copilot in Windows is not available when signed into a device with a local account.

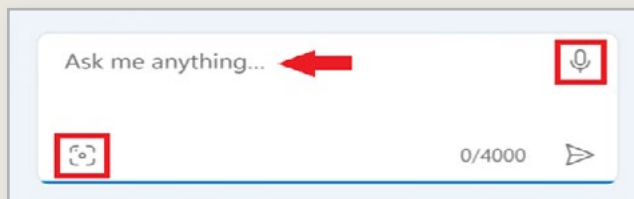
1. Select the **Copilot** button in the taskbar.



2. Select a conversational style. **Precise** is more search-focused, **Creative** gives responses that are more descriptive, and **Balanced** is somewhere in-between.



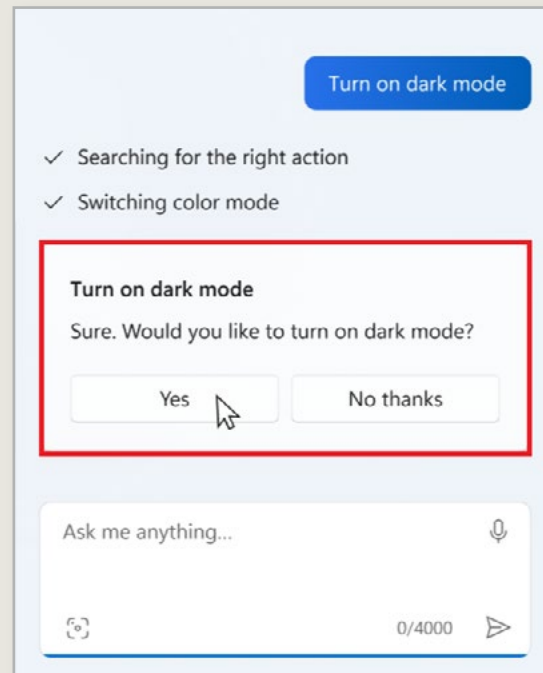
3. Create a prompt by following the [Creating effective prompts](#) section of this toolkit. Type the prompt directly into the chat area, use your voice to speak your prompt, or add an image.



4. Select the **Send** button.



5. If the prompt generates new content, check for inaccuracies and review cited sources. Otherwise, follow the instructions in Copilot in Windows to perform the requested task.



6. Select **New Topic** to clear Copilot and begin a new prompt.



Try Copilot in Windows

IT leaders or administrators often rely on multiple programs with many open applications when triaging an incident. Copilot in Windows can help you organize open applications by typing the prompt, Create snap layout.



Copilot prompt

As an IT administrator conducting a workshop for your colleagues at a large university, prepare a guide titled "Top 5 Ways Copilot in Windows Boosts IT Staff Productivity". For each point, provide a brief explanation and an example of a Copilot in Windows command that can be used. The command examples should be ready to use in Copilot in Windows.

Copilot refinements

Add these refinements into the chat area to revise Copilot in Windows response.

- Include the same content but add a section called FAQ which should contain 5 questions and answers about Copilot in Windows.
- Include the same content but add an additional question in the FAQ that contains a question and answer about data privacy and security with Copilot in Windows.

Learn more

- [Announcing Windows Copilot](#)
- [Welcome to Copilot in Windows](#)
- [Date and privacy](#)
- [Documentation](#)



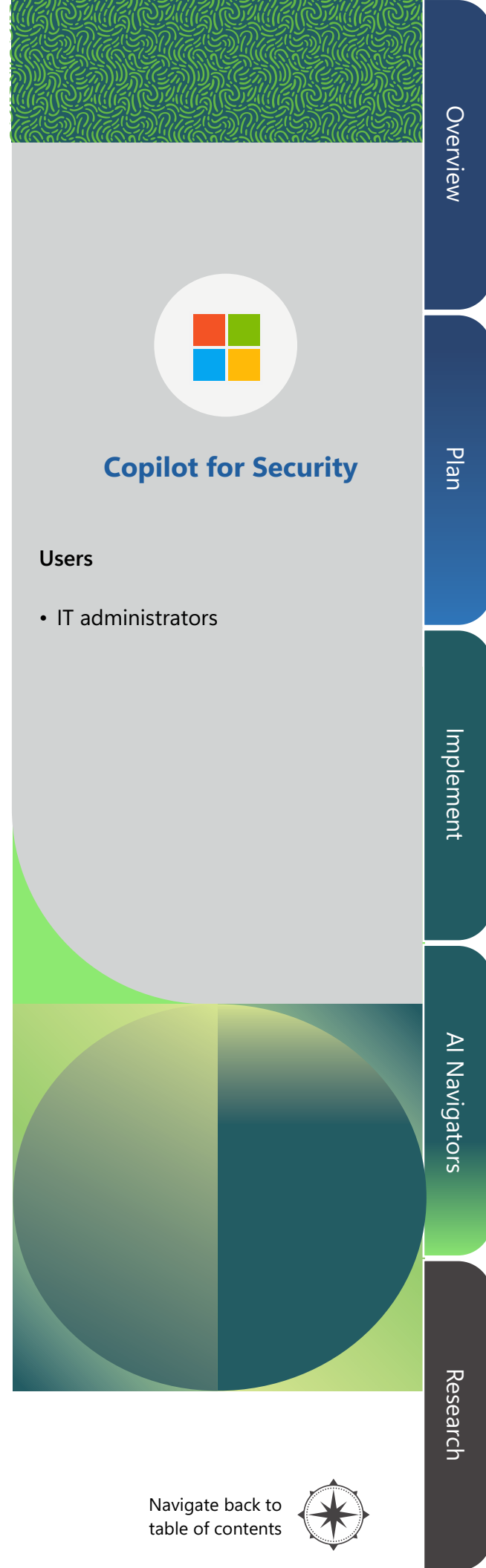
Copilot for Security

Copilot for Security is an AI-powered security solution that increases an IT administrator's efficiency and capabilities. It uses an assistive copilot experience and end-to-end scenarios for incident response, threat hunting, intelligence gathering, and posture management. Copilot for Security saves valuable time and personnel demands. It responds to security questions and learns from user interactions and enterprise preferences.

Schools can access Copilot for Security in two ways:

- **Access Copilot for Security:** Open Copilot for Security through a portal at securitycopilot.microsoft.com. This portal connects licensed Microsoft products and third-party services like Service Now so that administrators can run queries that rely on security signals from multiple products.
- **Microsoft security products:** Copilot for Security is available as a quick launch application within Sentinel, Defender XDR, Intune, Defender Threat Intelligence, Entra ID, Purview, Defender External Attack Surface Management, and Defender for Cloud.

Copilot for Security is available for early access customers. Schools must have a Microsoft Entra P1 or P2 license and a Microsoft Defender for Endpoint P2 license. **Note:** The steps in this section use the Copilot for Security portal to demonstrate how to get started.



Try Copilot for Security

Directors of Technology and IT administrators often investigate malicious websites that pose cybersecurity risks. Copilot for Security 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 Copilot for Security does 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 Copilot for Security 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 Copilot for Security's response.

- Include all the same information in the desktop reference guide but also link each prompt to the website where it came from.
- 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 its source website.

Learn more

- [Microsoft Copilot for Security](#)
- [How Microsoft Copilot for Security works](#)
- [Introducing Microsoft Copilot for Security for Empowering defenders at the speed of AI](#)
- [Documentation](#)
- [Onboarding](#)



Azure AI Studio

[Azure AI Studio](#) helps schools and institutions build their own AI applications using GPT, DALL-E, and Whisper large language models. With a custom copilot, schools can deploy an AI instance that uses internal data for a tuned chat experience that helps with comprehension, tasks, and decisions. It also includes an integrated safety system that addresses undesirable inputs, outputs, and misuse. Because Azure AI Studio is a part of the Azure platform, deployments are backed by Microsoft's enterprise-grade security protection.

Building custom AI applications requires schools to use [Azure AI Studio](#). It is a development platform for creating and customizing copilot using pre-built models. Azure AI Studio includes an environment for crafting project flow, engineering prompts, and evaluating outputs.

Customers with an Azure subscription can add Azure AI Studio after [requesting access](#). Pricing follows a [pay-as-you-go \(PAYG\)](#) structure and includes [Provisioned Throughout Units \(PTUs\)](#) to ensure custom copilots are ready for use.



Azure AI Studio

Users

- IT administrators

Overview

Plan

Implement

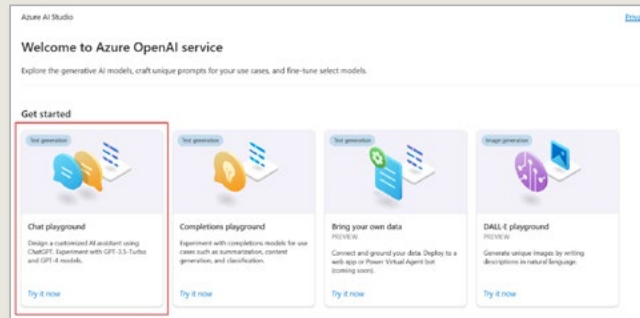
AI Navigators

Research

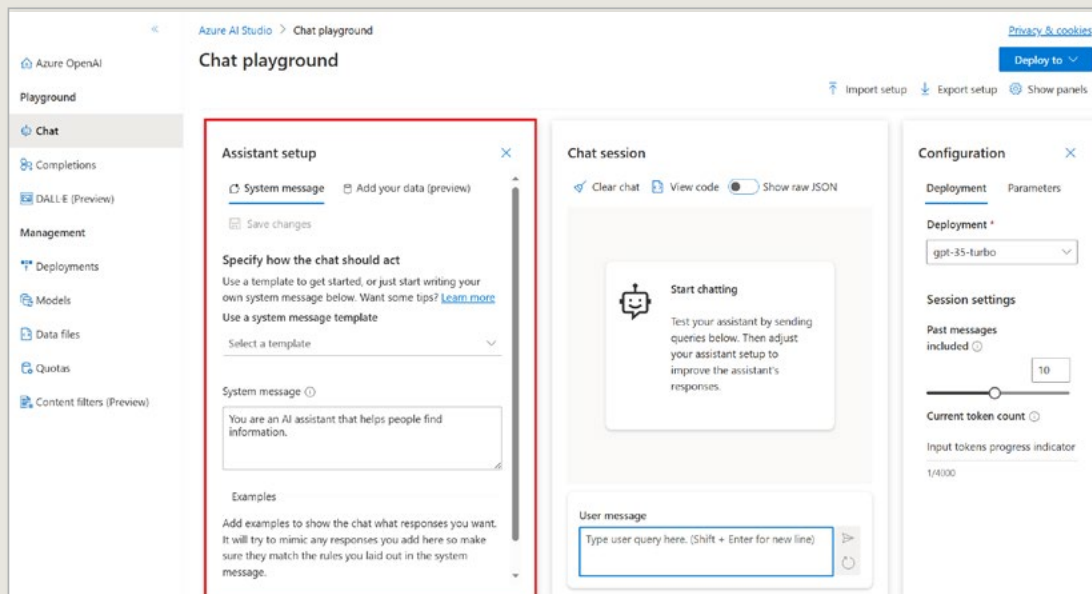


How to use Azure AI Studio

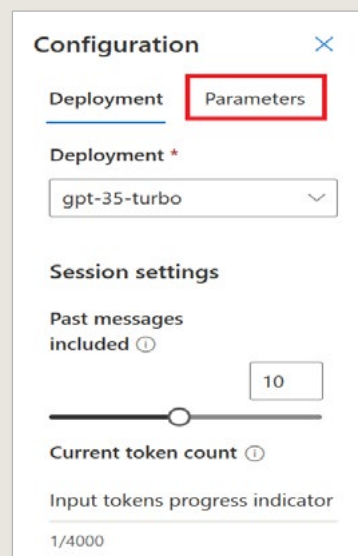
1. Apply for access to Azure AI Studio and confirm that you have an active Azure subscription.
2. Open Azure AI Studio by going to oai.azure.com. Select the appropriate directory, Azure subscription, and Azure OpenAI resource after signing in with your access credentials.
3. Select **Chat playground** on the landing page. The following steps cover how to build a custom chat copilot.



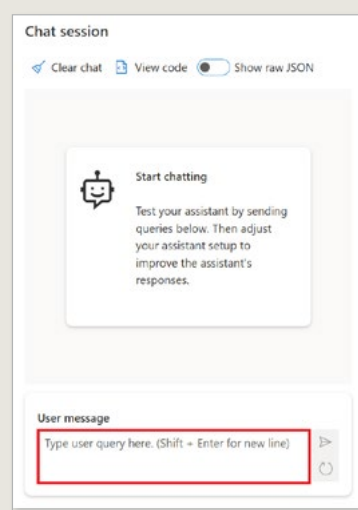
4. In the Assistant setup panel, write a System message or use a pre-built template that users see when interacting with the copilot. Select **Add your data** to include sources that the copilot will reference when generating responses.



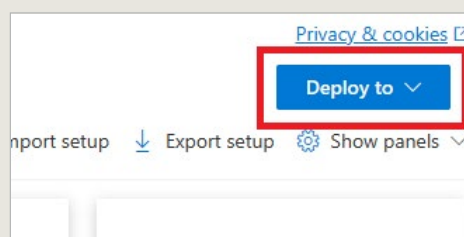
5. In the Configuration panel, use the **Deployment tab** to choose the model for the copilot. The parameters tab includes settings for [adjusting the model's temperature, max length, top probabilities](#) and more.



6. Type test prompts in the **User message field** to evaluate the copilot's performance before deployment.



7. Select the **Deploy to** button to create a new web app or publish to an existing web app when the copilot is ready for implementation.



8. Share the web address of the copilot with people at your school or institution. Be sure to review the [Azure AI Studio documentation](#) for detailed instructions, troubleshooting steps, and the FAQ about building a custom copilot for your institution.



Try Azure AI Studio

Azure AI Studio simplify 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 Studio 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 Microsoft Copilot's 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

- [Fundamentals of Azure OpenAI Service](#)
- [Documentation for Azure OpenAI Service](#)
- [Documentation for Azure AI Studio](#)
- [Data Privacy and Security](#)



Creating effective prompts with Microsoft Copilot

Microsoft Copilot can assist in content creation and delivery in education. It is designed to support IT teams, educational leaders, and educators by helping to increase productivity and collaboration. Copilot contributes by providing relevant answers and offering tailored solutions to benefit the entire educational community.

To make the best use of Microsoft Copilot, you need to be skilled in creating effective prompts that will help it to generate results that will help you. Prompts are the messages or requests you make of Copilot using the chat interface. As AI continues to advance, the techniques for effective prompting will also evolve—it's an ongoing learning process. This section of the AI Toolkit will help you learn the basics of creating high-quality prompts to get the best results.

Accessing Microsoft Copilot

There are five ways to access Copilot:

- Copilot.microsoft.com
- Microsoft Edge sidebar
- Windows 11 taskbar*
- Microsoft Edge app on mobile

*Copilot in Windows 11 may not be available on your PC

After navigating to your preferred access, make sure to sign in with your work account. You will see a green protected tag next to your credentials. This helps ensure your data is protected while you are using Copilot.

Built-in safety

Microsoft prioritizes the protection of educational environments using Copilot, with commercial data protection. User and organizational data are safeguarded, and chat prompts and responses in Copilot are not saved or accessed by Microsoft for training purposes. Our Customer Copyright Commitment further assures education customers that they can use our services and generated content with confidence about copyright claims.

Precision prompting

Generative AI models operate much like students following instructions for a task. When you ask students to write an academic paper, they might explore assorted topics. However, if you instruct them to write specifically about the impact of child labor laws during the Industrial Revolution, you'll likely receive more focused papers.

This analogy extends to instructing generative AI. Through a well-crafted prompt containing specific instructions or questions, users can guide the AI's responses towards desired outcomes, ensuring relevance, coherence, and accuracy. This not only enhances the AI's interpretability and utility but also promotes a collaborative and efficient interaction between humans and machines. It unlocks the full potential of generative AI applications across various domains.



Try it

Examine these examples to discern the differences between a poorly crafted prompt compared to a well-crafted one.

First let's look at this example of a poorly crafted prompt:

Create a 9th grade lesson plan for science.



This prompt is too vague. It lacks context, specific topics and learning objectives, and types of activities. It is overly general and lacks lesson plan elements. It links out to some websites for further exploration.

The screenshot shows the Microsoft Copilot interface. On the left, a chat window shows the user's prompt: "create a 9th grade lesson plan for science". Copilot's response is as follows:

Copilot

Certainly! Here are two science lesson plan ideas for 9th grade:

- 1. Rubber Band Car Challenge:**
 - **Grade:** 9th-12th
 - **Objective:** Students will build rubber band-powered cars using readily available craft supplies. The challenge is to build a car that goes as far as possible while making careful use of materials.
 - **Materials Needed:**
 - Craft sticks
 - Rubber bands
 - Plastic bottle caps
 - Straws
 - Wheels (can be made from cardboard or other materials)
 - Hot glue gun or tape
 - **Procedure:**
 1. Introduce the concept of potential and kinetic energy.
 2. Discuss how rubber bands store energy and release it when stretched.
 3. Divide students into groups and provide them with the materials.
 4. Instruct students to design and build their rubber band-powered cars.
 5. Test the cars by measuring how far they travel.
 6. Encourage students to iterate and improve their designs.
 - **Assessment:**
 - Students can present their cars, explain their design choices, and discuss the physics principles involved.
 - **Extension:**
 - Students can calculate the efficiency of their cars (distance traveled divided by the energy stored in the rubber band).
- 2. Control the Reaction Rate of a Foaming Reaction:**

Response from a poorly crafted prompt



Now try this prompt



Copilot prompt

Design a detailed lesson plan for a 9th-grade biology class focusing on cellular respiration, aligned with the Next Generation Science Standards (NGSS). Please structure the lesson into distinct segments: a 10-minute warm-up activity to introduce the topic, a 20-minute engaging lecture with interactive elements, a 30-minute hands-on activity to reinforce learning, and a 10-minute formative assessment to gauge student understanding. Include in your plan: specific learning objectives, materials needed for each segment, strategies for student engagement, differentiated instruction methods for diverse learning styles, and clear assessment criteria based on the learning objectives. Ensure the lesson is designed to be completed within a standard class period



This prompt provides specific instructions, standard alignments, a topic, and desired components. Notice the detail is much more specific to the topic, it linked to NGSS standards, created many elements of a good lesson plan, and offered options. This provides the educator with a much more detailed plan that they can then customize around their specific needs.

Now add an additional refinement to your results. Follow up by asking one of the following:

- Please provide 5 different analogies 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?



Crafting effective prompts

Crafting clear and specific prompts is critical for receiving accurate and effective responses. The more specific, and clear the prompt is the better the results will be for the user. This practice, known as prompt engineering, ensures better outcomes when using generative AI.

Persona—ask the tool to take on a role.

- Act as a mentor who provides personalized feedback, guidance, and encouragement to educators.
- You are a technology integration specialist who helps educators integrate technology tools in the classroom.
- You are the leader of a K–12 district that wants to improve the quality, equity, and efficiency of education.

Objective—what do you want the AI to do?

- 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.

Audience—specify who it's for.

- Parents and guardians of our high school students
- Elementary educators that teach art and music
- The president of the university

Context—what does the tool need to know?

- Background information
- Type of output (table, image, email, etc)
- Specific details related to the task

Boundaries—set directions or limitations.

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





Copilot prompt

You are a technology committee chair tasked with evaluating online apps for student use. To assist high school students with learning pronunciation, create a table of online apps that can be downloaded for teaching world languages. Include a column for each of the following: the name of the tool, a brief summary, cost, and user ratings.



Refine your prompt

Experimenting with various instructions, techniques, or word choices can yield different responses. If the results don't match your expectations or lack specificity, consider adjusting your prompt for better outcomes. The key to refining AI responses to meet your unique needs is to explore different strategies. Don't be afraid to try different approaches until you find what works best for you!

Tips for getting better results

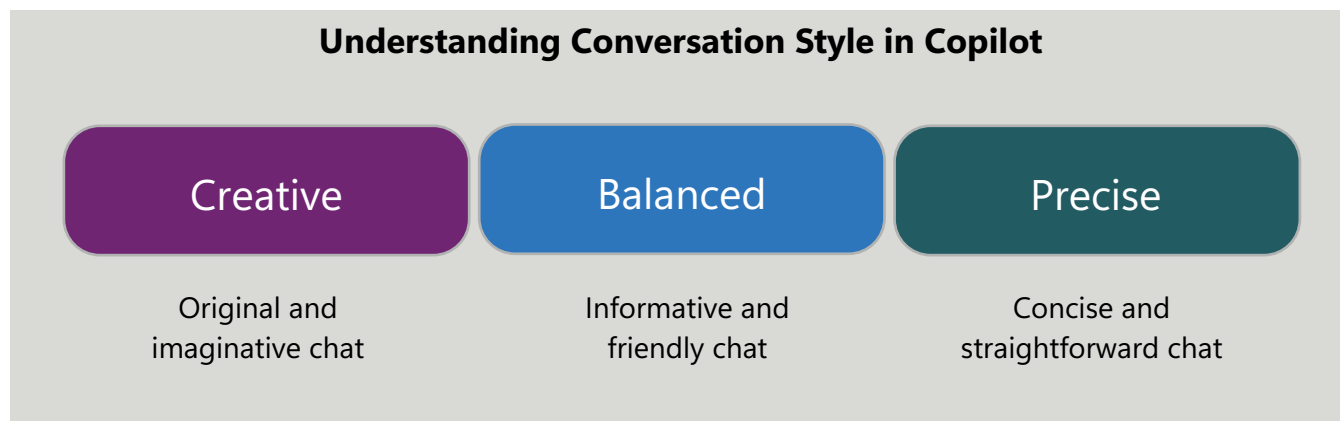
If you are struggling to get the results you need, refine your prompt using these suggestions.

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.
Don't use slang jargon or informal language	This may cause the AI to give low quality, inappropriate, or unprofessional responses.
Don't assume prior knowledge	Don't assume the AI has knowledge outside of the given prompt. Always provide context and set expectations.
Re-purpose a successful prompt	<p>If you create a prompt that works well for one task, try using it as a template and adjust it for similar tasks.</p> <p>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].</p>



Conversation styles

In addition to creating a better, more specific prompt, selecting the style in Copilot is important too. There are 3 styles available in Copilot: Creative, Balanced, and Precise. They will yield different results so you can try comparing results too!



Checking for accuracy

Remember AI is an assistant not a replacement for a human review and it can make mistakes, leading to inaccurate or fabricated information. Always review your AI responses for accuracy, grammar, and style. Additionally, verify the content created by AI is factual and check for any irrelevant or inappropriate material.



Interactive prompts

Try using the following prompts in Microsoft Copilot and then refine them to meet your needs. You can also compare the results using different conversation styles.



Copilot Prompt

You are an academic administrator who works on revising policies. Develop a policy framework on plagiarism and academic integrity when using AI for a university. This is an important topic because AI tools can generate original and realistic content that can be used for academic purposes, but they can also pose ethical and academic challenges, such as cheating, plagiarism, misrepresentation, falsification, or fabrication of data. You need to consider how to prevent, detect, and address these issues and promote ethical and responsible use of AI tools in academic contexts. Your policy framework should include the following elements:

- a. A definition of plagiarism and academic integrity with AI, and why they are important for learning and education.
- b. A list of the main challenges and opportunities of using AI tools for academic purposes, and how they affect plagiarism and academic integrity.
- c. A set of principles and guidelines for using AI tools ethically and responsibly in academic contexts, and how to cite and credit AI-generated content.
- d. A summary of the benefits and limitations of your policy framework, and how it can be implemented and evaluated.

Your policy framework should be written in a formal and academic style, and it should be no longer than 1000 words. You should use reliable and credible sources to support your arguments and claims, and you should cite them using the APA style.





Copilot prompt



As a seasoned school administrator, create a feedback rubric for evaluating teachers' instructional methods. This rubric, for use by fellow administrators, should feature four performance tiers, encompass ten formative assessment aspects, align with the school's ethos and standards, and employ encouraging, growth-oriented language. It should exclude non-instructional elements and not supersede ongoing professional development efforts.



Copilot prompt



As a cybersecurity expert, develop a straightforward tutorial for school staff on spotting phishing emails and social engineering attacks. The aim is to improve staff's ability to recognize phishing attempts, minimize the risk of falling for such attacks, and safeguard the school's data. The tutorial should be applicable across various email platforms, focus on practical, non-technical measures, and include relevant examples.



Copilot prompt



As a friendly and helpful instructional designer, your task is to assist teachers in explaining the concepts of logos, pathos, and ethos to 10th and 11th graders in an AP Language class. The students have no prior knowledge of these concepts. Develop clear and simple yet detailed explanations, analogies, and examples for each concept. Remember, your goal is to make these concepts easily understandable for the students.



Build your own prompt

Now that you are familiar with the elements used in building an effective prompt try building your own:

Persona	Who would be considered the expert in this area?
Objective	What is the task you want the AI to complete?
Audience	Who is this for?
Context	What does the tool need to know to give the best results?
Boundaries	What specific directions or limitations do you want to set on the tool?



Professional learning

Generative AI brings new technology and new learnings. A well-developed professional learning plan for your community will facilitate informed adoption of generative AI, and promote responsible practices, while ensuring your institution stays relevant and responsive to technological advancements. For any tool adoption, the best place to start is low-stakes experimentation. We recommend you practice with the Copilot prompts within all of the sections of this toolkit.



Microsoft Learn

Microsoft offers a variety of free resources that can support you in designing and implementing your AI learning experiences. [Microsoft Learn](#) provides technical documentation and self-paced professional learning experiences for different roles and levels.

Microsoft Learn documentation and resources

Track the training progress and certifications of your learners within your tenant by using the [Microsoft Learn Organizational Reporting Overview](#).

Learning for K–12 educators can be found at [AI for Education](#) where they can discover the AI for education learning path as well as the [Classroom toolkit](#) where they can unlock generative AI safely and responsibly with students ages 13–15.

For educators looking for resources to teach AI and tech skills and provide students with opportunity to earn verified credentials from Microsoft, we recommend the Microsoft Learn for [Educators Program - Applied Skills](#).



Microsoft Learn self-paced professional learning experiences

MS-012 Prepare your organization for Copilot for Microsoft 365

This 3-module learning experience examines the Microsoft Copilot for Microsoft 365 design, as well as its security and compliance features, and it provides instruction on how to implement Copilot for Microsoft 365.

Format: Microsoft Learn learning path

Audience: Higher education IT leadership and IT department; K-12 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. Learn which features you need to enable to use or build internal AI solutions.

Format: Microsoft Learn collection

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

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

As you prepare to use AI, discover the five pillars of AI success. Check out this guide for business leaders, and help your organization thrive on its path to AI transformation. We recommend this training for business leaders and all learners.

Format: Microsoft Learn collection

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



GitHub Education

GitHub is another location to explore professional learning experiences and learning paths. It offers free developer tools, training, and support for students, teachers, and schools.

Artificial Intelligence for Beginners—A Curriculum

A deep dive into Symbolic AI, Neural Networks, Computer Vision, Natural Language Processing, and more. Perfect for beginners, it covers TensorFlow, PyTorch, and AI principles.

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

A 6 Lesson course teaching everything to know about harnessing GitHub Copilot and an AI Paired Programming resource.

Format: GitHub Education course

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



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 or ChatGPT 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 ChatGPT, tailored to writing improvement.
- Materials Required: Itemize resources needed for the session.
- 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.



Section 4

AI Navigators



Education AI Navigators

Microsoft is excited to share the stories of institutions leading the way with research, experimentation, testing, and deployment of generative AI solutions in education—the AI Navigators. These trailblazers span a range of countries and educational organizations—from Ministries and State Departments of Education to institutions of higher education as well as primary and secondary schools.

The AI Navigators are introduced in two ways: customer stories and technical implementation guides. The customer stories describe how these early adopters applied Microsoft technologies to meet complex challenges unique to the students and faculty they serve. They highlight common themes, including:



Data

AI-powered data insights uncover valuable trends and patterns that can enable proactive decision-making and foster continuous improvement.



Equity and accessibility

AI-driven teaching solutions can prioritize equity for all learners by addressing barriers to access.



Hyper-efficiency



AI-driven efficiency can streamline both teaching and administrative tasks to reduce workload and enhance outcomes.

Technical implementation guides explain how these navigators implemented AI solutions from Microsoft. These peer-to-peer stories reflect some of the very challenges you face today, and, hopefully, will inspire you to follow the trails they've blazed.



Both the customer stories and technical implementation guides provide suggestions, tips, and tricks. Use the chart on the next two pages to learn more, read their customer stories, review the technical implementation guides, or explore the AI solutions they are using.





K–12 ministries and state departments of education

		Microsoft Copilot	Dynamics 365 Customer Insights with Copilot	Azure OpenAI Studio	Customer story	Technical implementation guide
	Department for Education, South Australia			●	Learn more	Get started
	Washington State Office of the Superintendent of Public Instruction	●			Learn more	

K–12 primary and secondary schools

	New York City Public Schools			●	Learn more	Get started
	Wichita Public Schools	●			Learn more	Get started

Higher education institutions

	California State University, San Marcos		●		Learn more	Get started
	University of South Florida			●	Learn more	



Customer stories

Microsoft's Education AI Navigators are leading the way in establishing best practices that use generative AI to unlock the full potential of educational data, foster inclusivity, and streamline workflows.

Get to know some of these leading institutions and how they are using Microsoft AI tools to improve their organizations and make a difference.



Overview

Plan

Implement

AI Navigators

Research

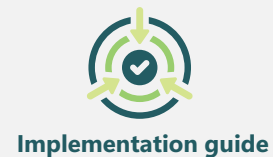


Wichita Public Schools

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 account users with Surface devices and Entra ID, the Wichita IT team seamlessly led an early adoption program of Microsoft Copilot. 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 Microsoft Copilot to faculty and staff?
- 📍 What AI usage guidelines (privacy, data protection) must be in place before taking the technical steps toward implementation?



New York Public Schools

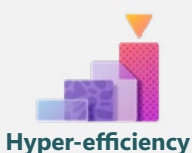
As the largest public school system in the world, with more than 1 million students and 1,700 schools, many NYC educators and district staff reported feeling overworked and overwhelmed. The district needed a solution that could help reduce the workload while meeting the individual needs of students and 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 Studio. 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. And when the custom chatbot was introduced to the district website, call volume decreased by 30%—leading to reduced overhead costs and fewer frustrated families.

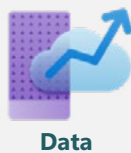
- 📍 How do your current needs align to the driving forces behind NYC's story? Is this implementation model a good fit?
- 📍 What are the advantages of building your own custom AI application?
- 📍 What district-level data management solutions must be in place before taking the first steps toward building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



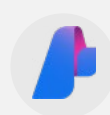
NYC Schools develop a custom AI-powered teaching assistant to multiply teacher effectiveness while also reducing parent and family wait times at the district office.



Hyper-efficiency



Data



Azure AI Studio



Implementation guide

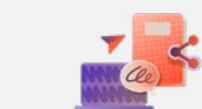


Department for Education, South Australia

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 Studio 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.

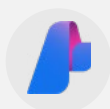
- 📍 How do your current needs align to the driving forces behind South Australia's AI story? Is this implementation model a good fit?
- 📍 What are the advantages of building your own custom AI application?
- 📍 Does this model effectively address your stakeholders' biggest concerns when it comes to deploying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



Equity and accessibility



Hyper-efficiency



Azure AI Studio



Implementation guide



California State University, San Marcos

As a university with many first-generation students, 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?



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



Equity and accessibility



Data



Dynamics 365



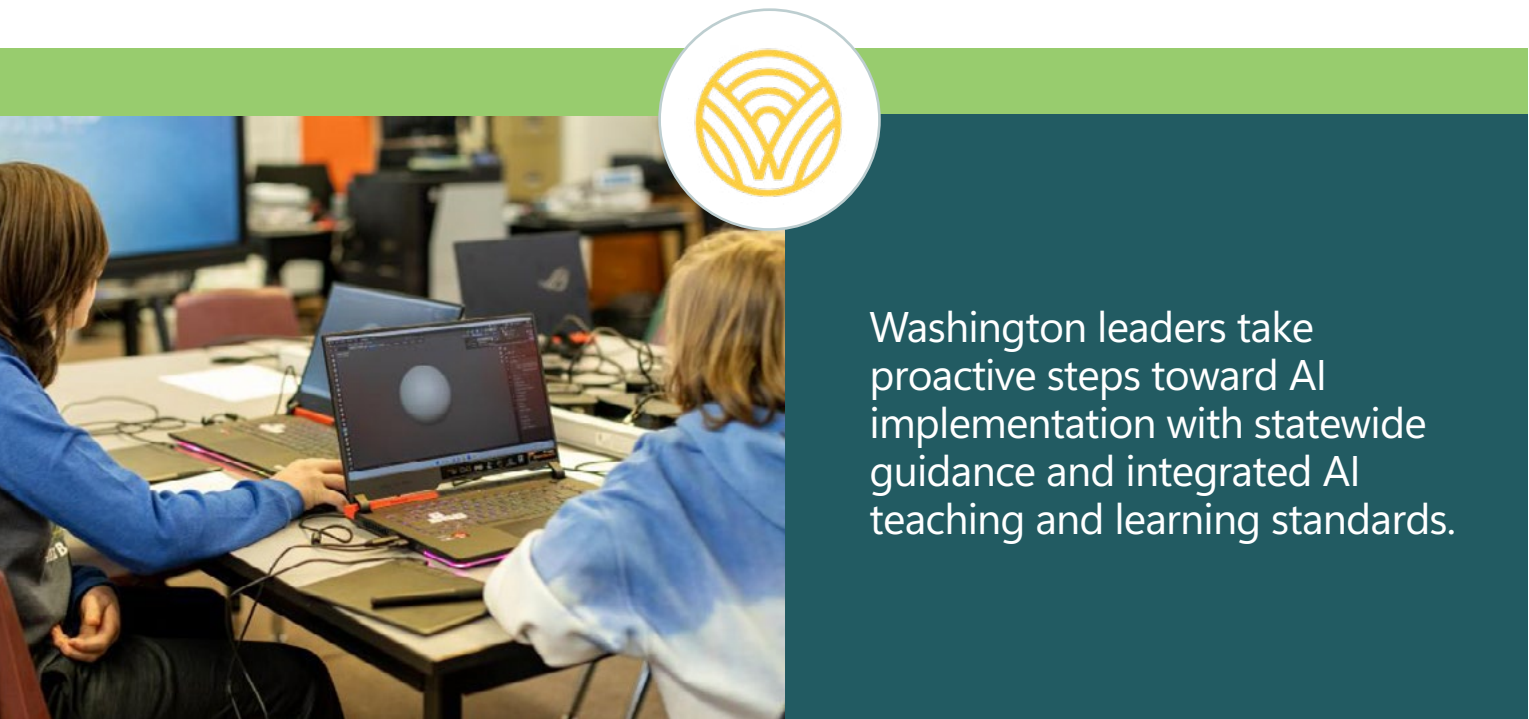
Implementation guide



Washington State Office of the Superintendent of Public Instruction

Education leaders in Washington State, led by Superintendent Chris Reykdal, are taking proactive steps when it comes to AI use in schools. They became one of the first states in the nation 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.



Equity and accessibility



Human-centered AI guidance¹

¹ ospi.k12.wa.us/sites/default/files/2024-01/human-centered-ai-guidance-k-12-public-schools.pdf



University of South Florida

The University of South Florida, a pioneer in research and innovation, has taken a significant step toward ensuring equity. They have become one of the first universities to provide all students, staff, and faculty with equal access to technology by fully implementing the Microsoft 365 Copilot program. This initiative underscores their commitment to creating an inclusive environment where everyone in the organization has the same opportunities to thrive.

USF adopted a “platform approach” to AI that includes integrations with all areas of campus life, from student and faculty research to administrative efficiencies. University leaders like CIO Sidney Fernandes have found that “generative AI and the copilot we have started to use have shown us that a single person can do much more work.” With this increased efficiency, faculty and students are finding more time to work on meaningful research, while the IT service desk is focusing more time on solving problems rather than performing triage.



University of South Florida faculty and students adopt Copilot for advanced research, data management, and administrative efficiency.



Equity and accessibility



Hyper-efficiency



Microsoft Copilot



Technical implementation guides

Discover how Microsoft's AI navigators are pioneering AI implementation in education.

Follow in their footsteps to assess your organization's AI readiness, acquire the necessary technology, and take the first steps toward building your own AI capability while using their implementation as your guide.



Overview

Plan

Implement

AI Navigators

Research



Technical implementation guide for Wichita Public Schools

A model of success

Wichita educators use Microsoft Copilot to make learning accessible and bring a greater diversity of tailored learning experiences into the classroom

Educators within Wichita Public Schools see each of their 47,000 students as having significant potential and promise. Like educators everywhere, they faced the challenge of personalizing learning to each student's needs. This changed when they began using Copilot. Olivia Sumner, a teacher at Education Imagine Academy, immediately recognized Copilot's ability to personalize instruction. Similarly, Andy Curtis, a middle school history teacher, can make 15th-century texts more accessible by adapting to his students' reading levels with Copilot. Continue reading to learn how you can offer similar opportunities for your educators and staff.

"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

Software and services



Entra ID



Microsoft
Copilot



Edge
browser



Technical guides to follow

- [Microsoft Copilot with commercial data protection](#)
- [Microsoft Copilot Adoption Kit](#)
- [Microsoft Learn: Copilot commercial data protection](#)
- [Microsoft Learn: Enhance teaching and learning with Microsoft Copilot](#)

Success stories to share

- [Wichita Public Schools personalized learning for students using Microsoft Copilot](#)
- [Expanding Microsoft Copilot access in education](#)

Preparing for success

Ready to recreate Wichita Public Schools' success? Consider the following first steps:



Purchase the IT infrastructure, licenses, and software required to introduce Copilot to your educators and staff.



Find a cohort of school and instructional leaders who are enthusiastic about developing both the AI program and opportunities for professional learning.



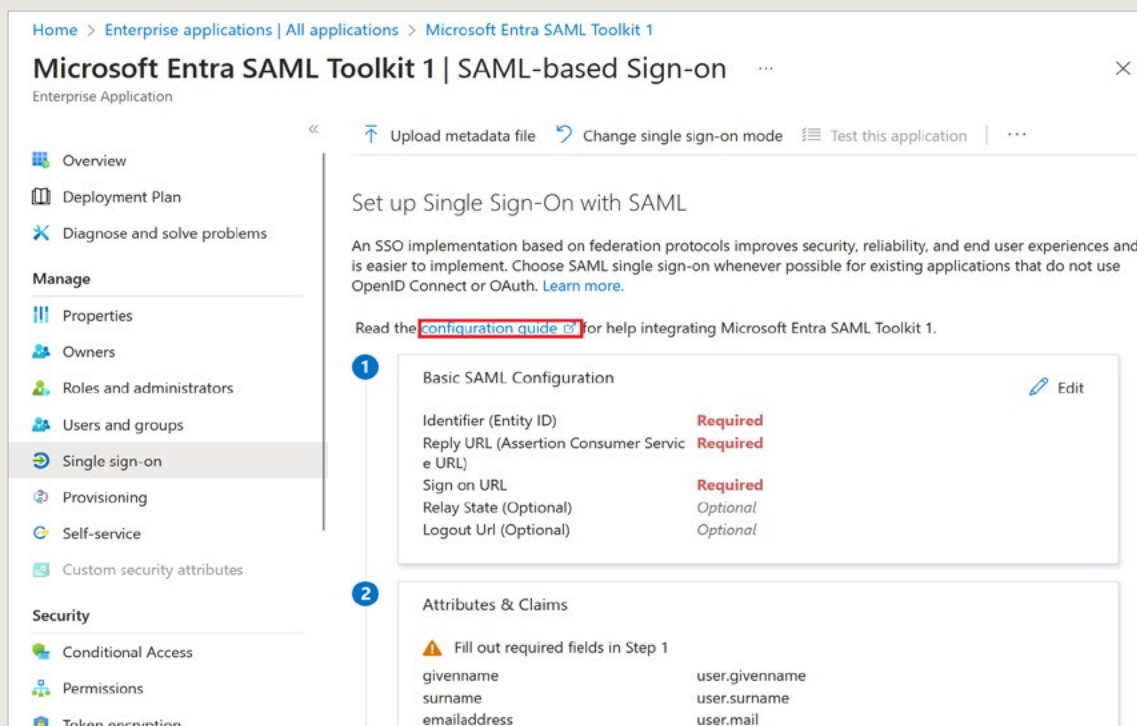
Communicate with stakeholders to fully understand their concerns when it comes to deploying AI safely and responsibly. Create a plan that will address their concerns. Refer to the Engaging your community section in this toolkit for additional information.



Implementation roadmap for Wichita Public Schools

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

1. Verify or purchase a Microsoft 365 Education A1, A3, or A5 license .
2. Open Entra ID and select Single sign-on (SSO) from the sidebar. Follow the prompts to configure the SAML protocol.



3. Open Powershell in the [Azure portal](#) and enable the Commercial data protection for Microsoft Copilots service plan. The Copilot service plan is included with A1, A3, or A5 Microsoft 365 Education plans.
4. Optional: To require [Copilot with commercial data protection for all users](#), update the DNS configuration by setting the DNS entry for [www.bing.com](#) to be a CNAME for nochat.bing.com.
5. Support educators with the [Enhance teaching and learning with Microsoft Copilot](#) course to help write effective prompts.



Technical implementation guide for Department for Education South Australia

A model of success

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

The Department for Education in South Australia is driven by a mission to equip their students for a future where AI is everywhere. They want their students and families alike to experience how AI can be used safely while preparing them for the future. To meet these goals, South Australia schools used Azure AI Studio to build EdChat—an AI chatbot designed specifically for teaching and learning. Over 1,500 students and 180 educators took part in an 8-week trial of the chatbot.

To ensure student protection they relied on Microsoft's Azure AI Content Safety, an AI-powered platform that blocks inappropriate input queries and filters any harmful responses. Students quickly embraced the opportunities of the new technology. Principals like Rosie Heinicke found that it gave students a safe space to push the limits of what AI can do and explore how it can help with their learning: "It's an extremely powerful shift to see our students go from learning to answer questions, to instead learning how to ask the right questions."

Software and services



Azure AI Studio

- Verify or purchase a license for Microsoft Azure and set up an [account](#).
- [Apply for access](#) to Azure OpenAI Studio
- When access has been approved, [purchase, set up, and manage](#) your Azure OpenAI Studio environment. Choose from the available Azure OpenAI plans: Pay-As-You-Go (PAYG) or [Provisioned Throughput Units \(PTUs\)](#).

"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. We're teaching students how to use AI effectively and responsibility to support their learning."

Martin Westwell
Chief Executive of the SA
Department for Education



Technical guides to follow





- [Microsoft Learn: What is Azure OpenAI Service?](#)
- [Microsoft Learn: What is Azure AI Content Safety?](#)
- [Microsoft Learn: Fundamentals of Azure OpenAI Service](#)
- [Microsoft Learn: Get started with Azure Open AI Service](#)
- [Microsoft Learn: Create a project in Azure AI Studio](#)

Success stories to share

- [Microsoft News: South Australian students are supercharging their creativity and critical thinking with AI in the classroom](#)
- [Microsoft News: Learning in the AI era; How South Australia's Department for Education is empowering students and teachers with AI in the classroom](#)
- [Microsoft News: How Azure AI Content safety helps protect users from the chatroom to the classroom](#)
- [EdChat—How schools are using the generative AI chatbot](#)

Preparing for success

Ready to recreate South Australia's success? Consider the following first steps:

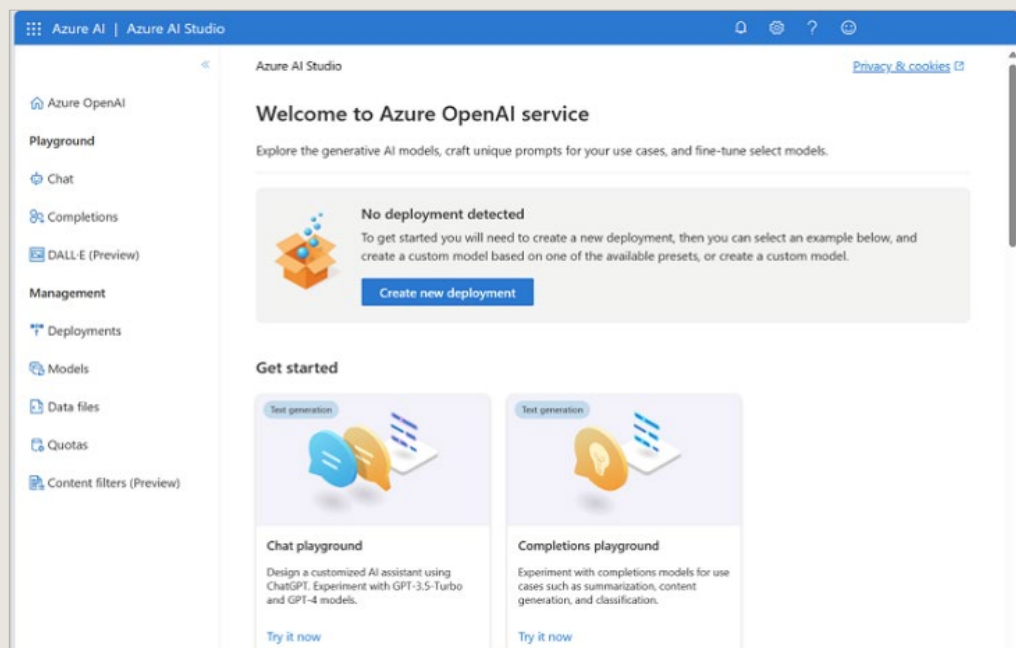
-  Purchase the IT infrastructure, licenses, and software required to build your own custom AI application with Azure OpenAI Service.
-  Review the [Overview of Responsible AI Practices](#) and [Azure OpenAI's Transparency Note](#) for guidelines of responsible use of the service and system limitations that may apply.
-  Find a cohort of school and instructional leaders eager to pilot an AI program.
-  Communicate with stakeholders to fully understand their concerns when it comes to deploying AI safely and responsibly. Create a plan that will address their concerns. Refer to the Engaging your community section in the Plan tab for additional information.



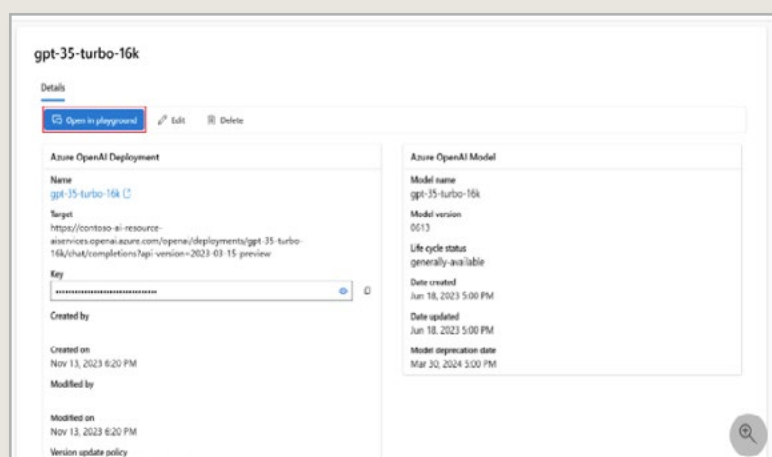
Implementation roadmap for Department for Education, South Australia

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

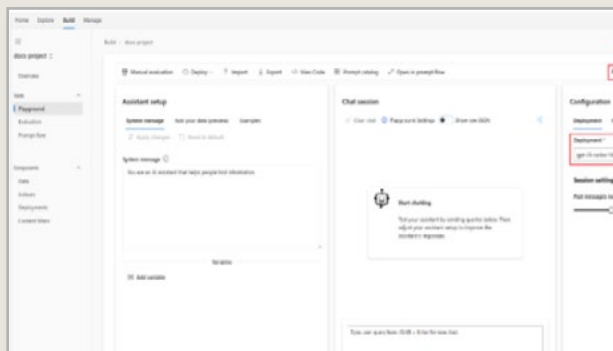
1. Open Azure AI Studio. Explore the Playground features and use the assistant setup tool to get started.



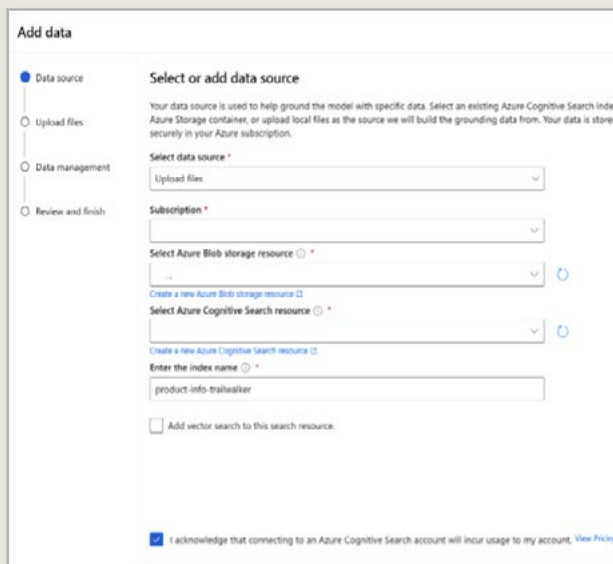
2. Build, test, and revise models in [Azure AI Studio's playgrounds](#). Follow the steps to first deploy and test a chat model without your data. After the deployment is created, select **Open in playground**.



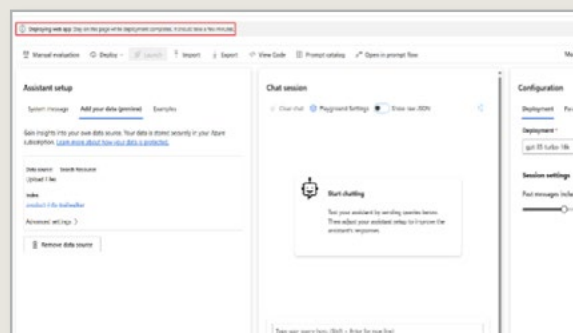
3. Select your deployed GPT chat model from the Deployment dropdown menu and follow the **Assistant setup** prompts to customize your chatbot.



4. Follow the steps to **add your own data** to the chatbot model. You can upload data files or select from data sets in Azure Blob Storage. Note that Azure OpenAI needs both a storage resource and a search resource to access and index your data. Your data is stored securely within your Azure subscription.



5. Once you're satisfied with the experience in Azure AI Studio, you can deploy your model as a standalone web application. Follow the steps to **deploy your web app**, using the assistant setup for guidance.



6. Configure your chatbot **authentication and privacy settings**. Add an identity provider and create a new app registration.
7. Set up [Azure AI Content Safety services](#) and moderate the available features. Choose how you want to moderate text content, moderate image content, and monitor online activity within your chatbot. The [Quickstarts](#) can guide you through the technical details and generate code for making service requests.



8. Access the [How-to guides](#) for using the service in more specific or customized ways. [Concepts](#) will provide in-depth explanations of Azure AI Content Safety service functionality and its features. You'll find useful tables that explain the different levels of severity, so you can make informed decisions about which content you want to filter.

Violence severity levels Expand table

Severity Level	Description	Example Text
Level 0	Content that contains non-violent actions or violence-related terms used in a general sense that is harmless for all target audiences, including children. This includes: <ul style="list-style-type: none"> Common objects when not used as weapons Toy guns, non-realistic or pretend guns Mentions of ropes when not used as a noose 	"According to our child and parent testers, here are the best long-range soakers for soft blasters for toddlers suitable for epic water battles."
Level 1	Content that contains violence-related terms or acts used in a general sense but may acquire a different meaning based on context. This includes: <ul style="list-style-type: none"> Subsets of texts that contain descriptions of violent acts, where the contextualization of the full text does not possess violent intent Official statistics and documentation on guns, weapons, domestic violence, warfare, military, etc. Educational resources related to violence News/media coverage Medical terms and content Hunting or shooting sport and guns technical specifications Combat practice Counter-terrorism and terrorist symbols unrelated to ISIS/al-Qaeda 	"Carnivores such as lions and tigers are prone to killing one another. Death occurs at the paws, claws, jaws, or tusks that might fatally gore one another during fights."

9. Finally, recruit a small but diverse cohort to pilot the chatbot program and provide feedback data. Return to Azure AI Studio and Azure AI Content Safety to further refine the chatbot's features and functionality.



Technical implementation guide for New York City Public Schools

A model of success

NYC Public Schools developed a custom AI-powered teaching assistant to multiply teacher effectiveness while also reducing parent and family wait times at the district office

In early 2023, schools worldwide were busy responding to the emergence of ChatGPT and generative AI. NYC Schools, the largest school system in the world, initially restricted access to the platform. However, as time passed, school leaders began requesting access to these tools, prompting Zeeshan Anwar, the district's chief product officer, to reconsider. Eventually, NYC Public Schools changed their approach and collaborated with Microsoft to develop custom chatbots tailored for educators, students, and families. Tara Carrozza, the Director of the district's Digital Learning and Innovation (DLI) team, sees the teaching assistant chatbot as a means for educators to fully provide personalized support to each student. Continue reading this section to learn how to use Azure AI Studio to build custom AI tools.

"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

Software and services



Azure AI Studio

- Purchase a license for Microsoft Azure and set up an [account](#).
- [Apply for access](#) to Azure OpenAI Studio
- When access has been approved, [purchase, set up, and manage](#) your Azure OpenAI Studio environment. Choose from the available Azure OpenAI plans: Pay-As-You-Go (PAYG) or [Provisioned Throughput Units \(PTUs\)](#).



Technical guides to follow





- [Microsoft Learn: What is Azure AI Studio?](#)
- [Microsoft Learn: Fundamentals of Azure OpenAI Service](#)
- [Microsoft Learn: Get started with Azure OpenAI Service](#)

Success stories to share

- [Collaborating to bring AI innovation to education](#)
- [How NYC Public Schools invited AI into its classrooms](#)
- [NYC Department of Education Rises to the challenge with Microsoft Azure](#)

Preparing for success

Ready to recreate NYC Public Schools' success? Consider the following first steps:

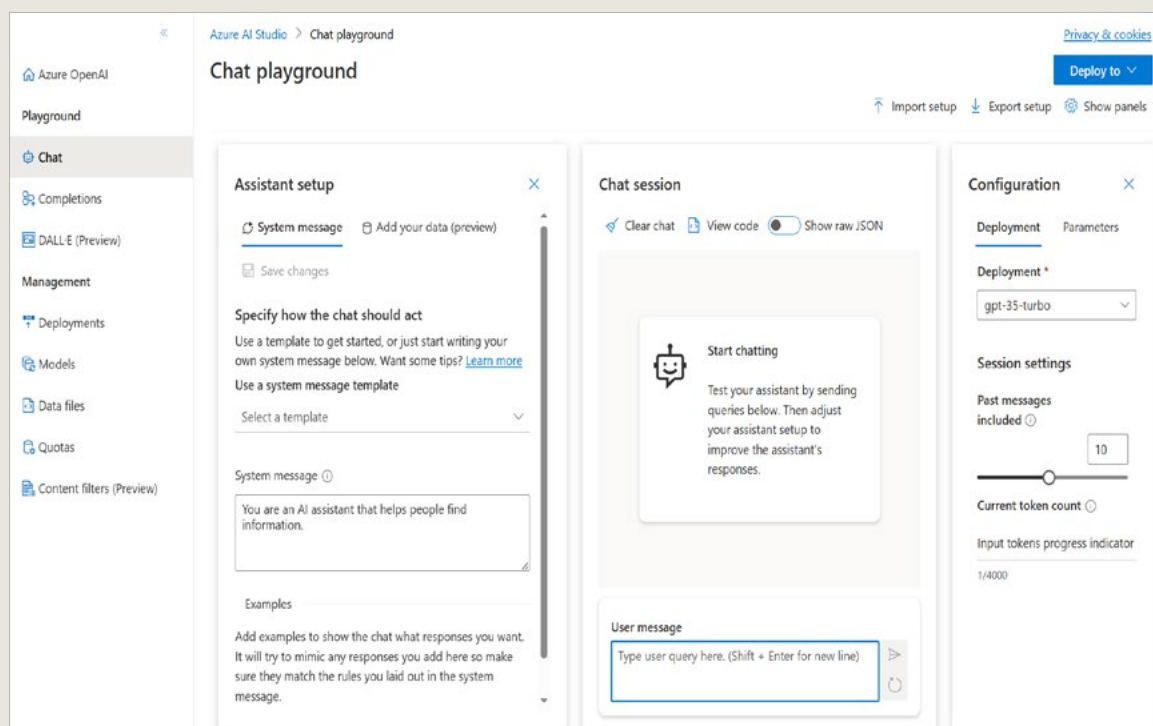
-  Purchase the IT infrastructure, licenses, and software required to introduce Azure AI Studio and to your school.
-  Review the [Overview of Responsible AI Practices](#) and [Azure OpenAI's Transparency Note](#) for guidelines of responsible use of the service and system limitations that may apply.
-  Find a cohort of school and instructional leaders enthusiastic about developing the AI program and professional learning opportunities.
-  Communicate with stakeholders to fully understand their concerns when it comes to deploying AI safely and responsibly. Create a plan that will address their concerns. Refer to the Engaging your community section in the Plan tab for additional information.



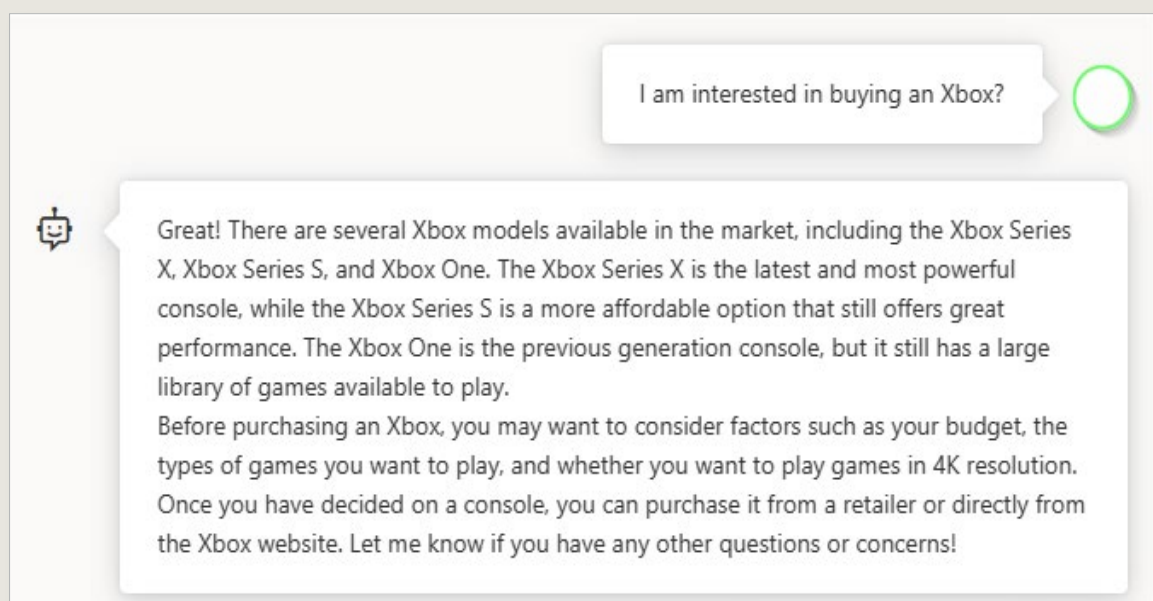
Implementation roadmap for NYC Public Schools

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

1. Explore the Playground.

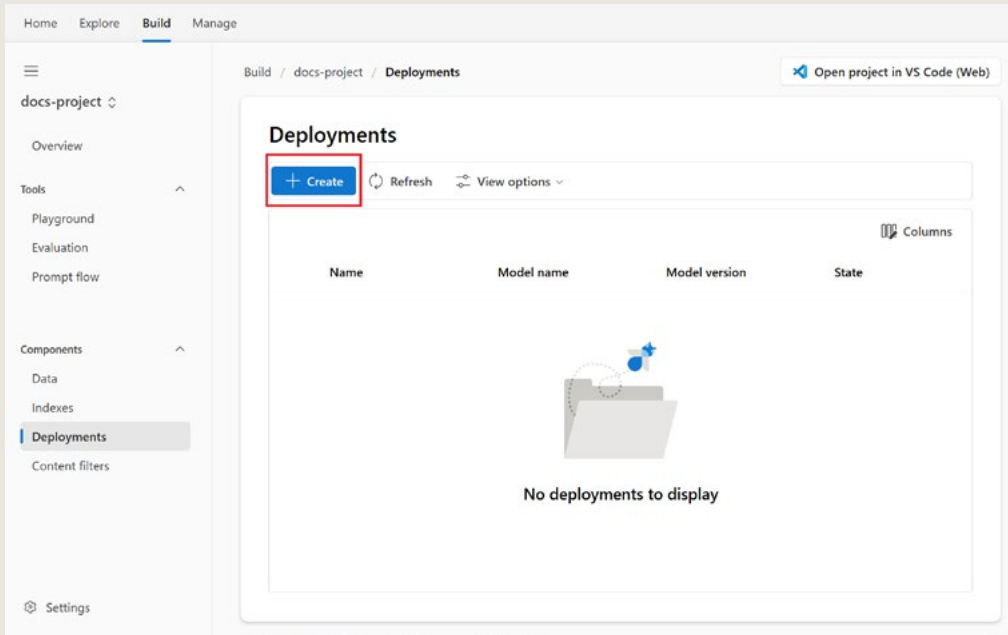


2. Use the assistant setup.

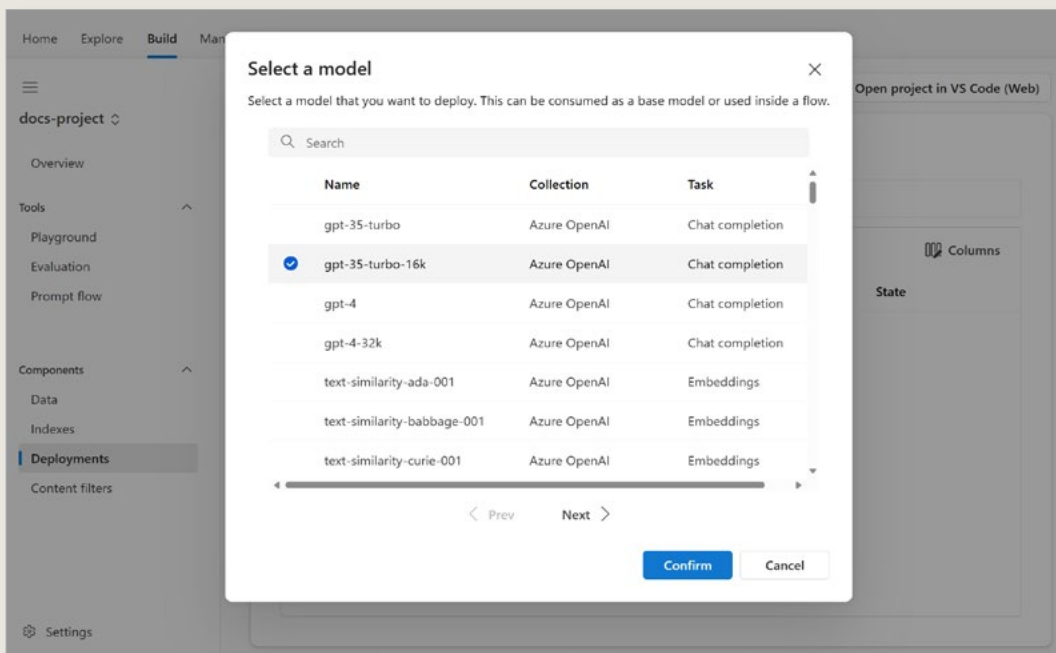


Build, test, and revise models in Azure AI Studio's playgrounds

1. Build natural language solutions



2. Apply prompt engineering





3. Generate code
4. Generate images

Assistant setup

System message Add your data (preview) Examples

Gain insights into your own data source. Your data is stored securely in your Azure subscription. [Learn more about how your data is protected.](#)

 **Ingestion in progress**
Preprocessing has not started
Indexing has not started

 Remove data source

5. Use your own data
6. Deploy your generative AI model
7. Configure authentication and privacy settings



Technical implementation guide for California State University, San Marcos

A model for success

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

“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

As a university with many first-generation students, CSUSM was driven by a desire 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, meet their individual needs, and personalize their college journey. University leaders developed a plan to meet students where they are—customizing all their campus communications to provide a more personal touch.

To accomplish this, they turned to AI-powered data insights. CSUSM used Dynamics 365 Customer Insights to make sense of data spread across the entire school system. From this consolidated data, the university used Customer Insights “journeys” and Dynamics 365 Copilot to provide personalized, timely communication throughout their students’ entire academic experience.

Software and services



Dynamics 365 Customer Insights with Copilot

- Verify or purchase a license for Dynamics 365 Customer Insights with Copilot



Technical guides to follow

- [Get Started with Dynamics 365 Customer Insights—Data](#)
- [Get Started with Customer Insights—Journeys](#)
- [Microsoft Learn: Work with Dynamics 365 Customer Insights Data](#)
- [Microsoft Learn: Product overview for Dynamics 365 Customer Insights](#)

Success stories to share

- [Microsoft Education Blog: Streamline messaging with Dynamics 365 Copilot](#)
- [Microsoft Customer Stories: CSUSM prioritizes the student lifecycle journey with Dynamics 365 Customer Insights](#)

Preparing for success

Ready to recreate CSU San Marco's success? Consider the following first 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.



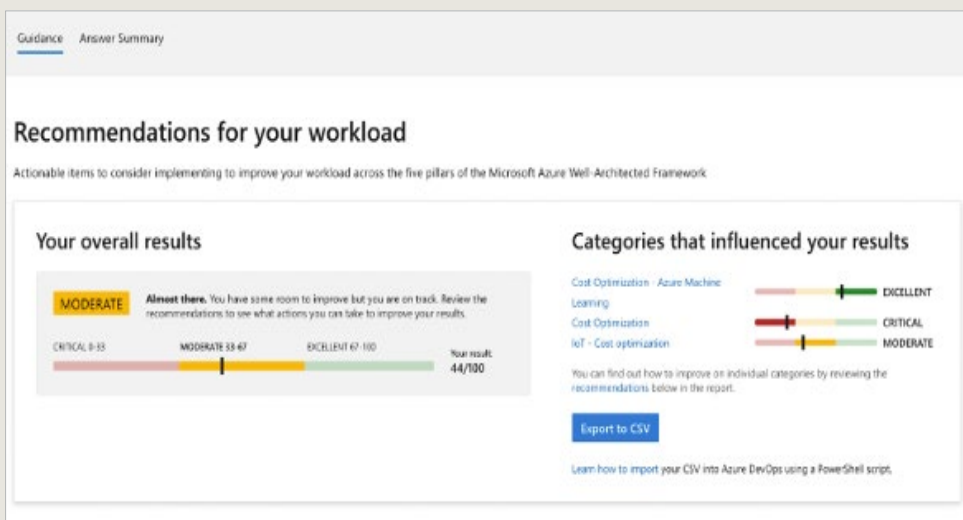
Complete the [Dynamics 365- Implementation Readiness Review](#) to proactively assess your institution's readiness to start a Dynamics 365 implementation project.



Implementation roadmap for California State University, San Marcos

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

1. Address any categories from the [Dynamics 365-Implementation Readiness Review](#) that influenced your results. The results of the assessment will provide actionable recommended practices to prepare for a successful project start.

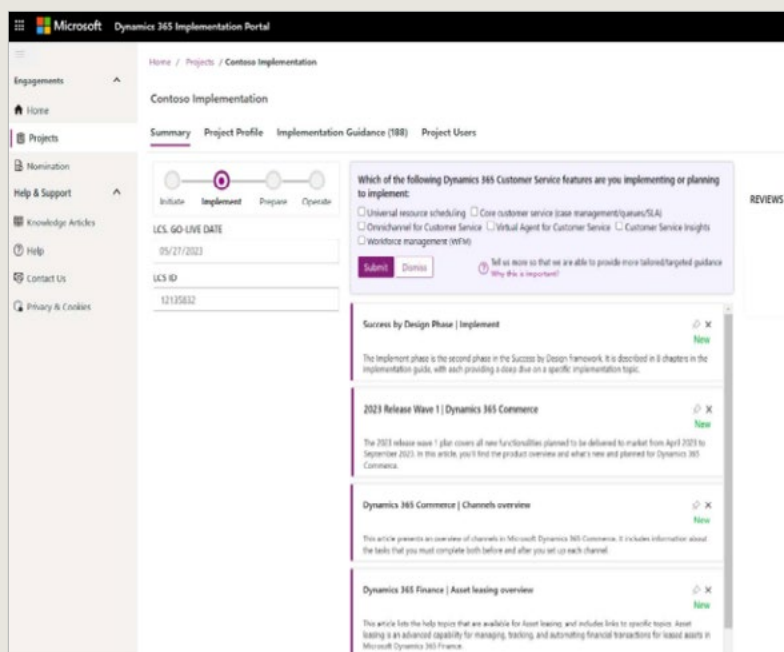


2. Log into the [Dynamics 365 Implementation Portal](#) to get started with building your project.
3. From the Projects tab, choose **Create/Join Project**. Follow the prompts for Project Onboarding to Dynamics 365.

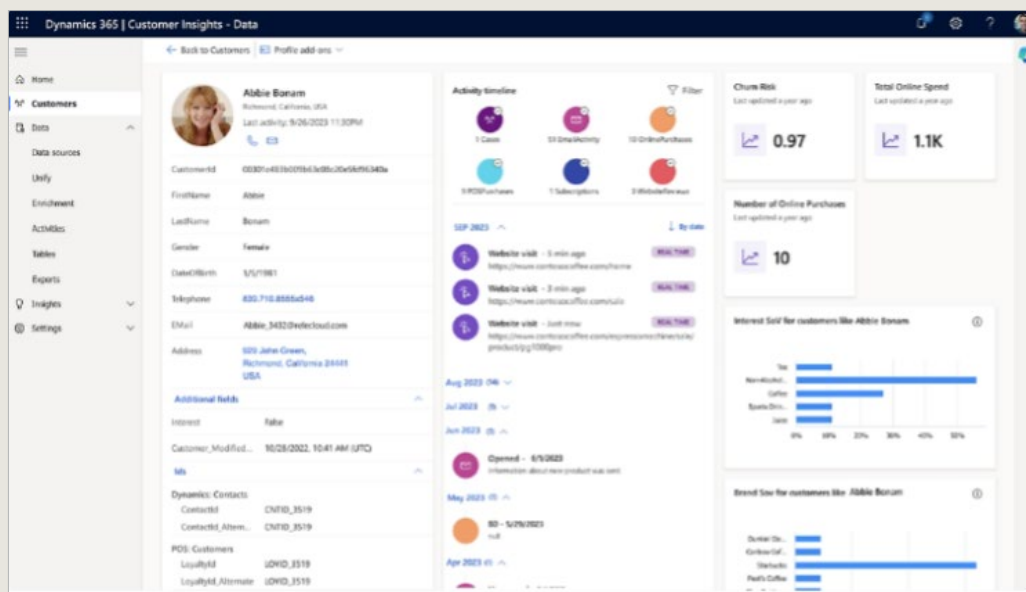
The screenshot shows the 'Project Onboarding' page in the Microsoft Dynamics 365 Implementation Portal. The page has a sidebar with navigation links: Engagements, Home, Projects, Nomination, Help & Support, Knowledge Articles, Help, Contact Us, and Privacy & Cookies. The main content area is titled 'Home / Project Onboarding' and features a progress bar with three steps: Greetings, Existing Projects, and Create New Project. Below the progress bar, instructions state: 'In this step, you will be able to create a new project in the Dynamics 365 Implementation Portal. Please provide the details below and click the Create Project button when done.' The form includes fields for 'Project name' (with a hint to consider deployment region or main apps), 'Please provide the e-mail address of one additional Project User', and 'Please provide the e-mail address of one additional Project Admin'. A dropdown menu for 'Please select the products you'll be implementing' shows '2 selected'.



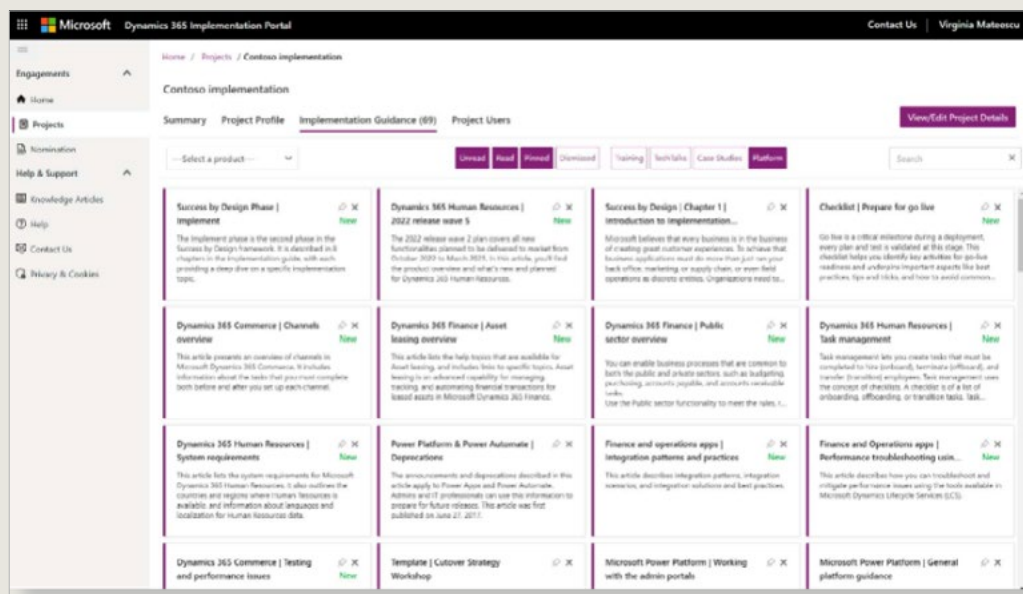
4. Create a new project or join an existing one. Use the **Implementation Wizard** to capture the scope, partner details, and go-live timeline.
5. Define your project characteristics and implementation details. From the **Project Profile** tab, manage your project data and define your users.



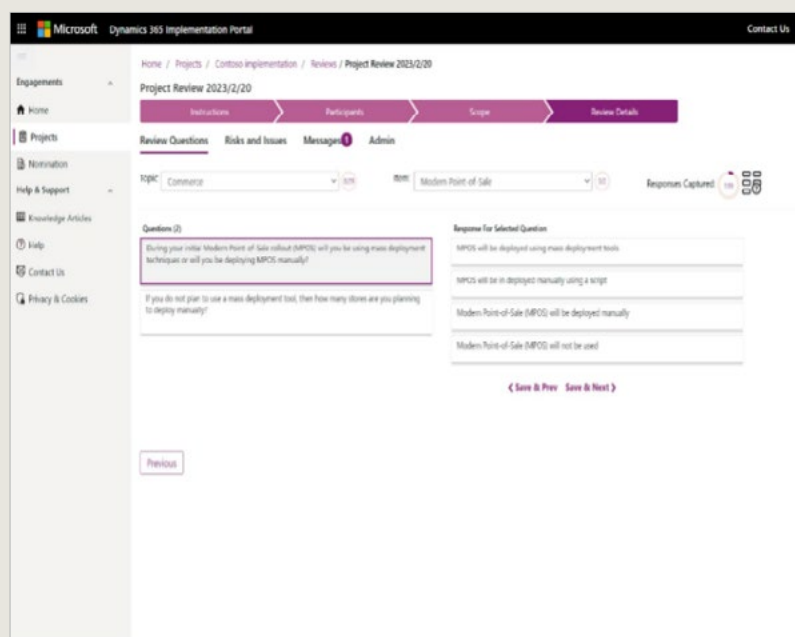
6. Enhance your project with [pre-built products and features for Dynamics 365](#). From the list of features, choose **Customer Journeys** to unify your students' data and gain AI-powered insights into their communication preferences and online engagement.



7. From the **Implementation Guidance** tab, filter and explore resources tailored to your project needs. Read through the documentation and download relevant training materials.



8. Conduct project reviews with the **Go-live Readiness Review** tool. This will help identify any potential risks prior to deployment. View the tool's mitigation recommendations and best practices, then make updates to the project as needed.



9. Deploy the project. Use the **Success by Design methodology** for guidance in maintaining the long-term health of your solution.





Overview

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AI Navigators

Research

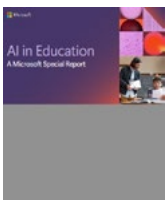
Section 5 Research

Navigate back to
table of contents



Latest research and information

Research on the effective use and adoption of generative AI technologies has emerged as more and more universities, schools, ministries and state departments of education have begun experimenting and adopting them at various levels within their organization. The following collection includes links and short summaries.



AI in Education: Microsoft Special Report

March 2024 • **Research**

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, improving operational efficiency and productivity, potential benefits of AI for personalized learning, and the skills students need to prepare for the future.



Microsoft New Future of Work Report

December 2023 • **Research**

In the past three years, there have been not one but two generational shifts in how work gets done, both of which were only possible because of decades of research and development. The first shift occurred when COVID made us realize how powerful remote and hybrid work technologies had become, as well as how much science was available to guide us in how to (and how not to) use these technologies. The second arrived this year, as it became clear that generative AI had advanced to the point where it could be valuable to huge swaths of the work people do every day. This report centers on the role of integrating generative AI large language models into the world of work.





Math Education with Large Language Models: Peril or Promise?

December 2023 • **Research**

This study involved 1,200 participants to investigate how exposure to LLM-based explanations affect learning. In the experiment's learning phase, participants were given practice problems with two differing key factors in a between-participants design. First, whether they were required to attempt a problem before or after seeing the correct answer, and second, whether participants were shown only the answer or were also exposed to an LLM-generated explanation of the answer. Subsequently, all participants were tested on new test questions to assess how well they had learned the underlying concepts. Overall, the study found that LLM-based explanations positively impacted learning relative to seeing only correct answers.



Student-ChatGPT Dialogue in EFL Writing

September 2023 • **Research**

This study is based on a semester-long longitudinal experiment involving 212 college students enrolled in English as Foreign Language (EFL) writing courses using generative AI to revise essays. It analyzes students' usage patterns and perceptions regarding generative AI with respect to their intent and satisfaction.



Finding High-Impact Opportunities for AI in Education

March 2024 • **Research**

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.





Unlocking the Power of ChatGPT: A Framework for Applying Generative AI in Education

April 2023 • **Research**

This study examines the impact of AI chatbots like ChatGPT on education, highlighting the potential for personalized learning experiences and streamlined feedback processes. It also acknowledges significant hurdles, including the unproven efficacy of these technologies, data quality issues, and ethical considerations.



Guidance for generative AI in education and research

December 2023 • **Planning support**

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.



Do AI chatbots improve students learning outcomes? Evidence from a meta-analysis

May 2023 • **Research**

The British Journal of Educational Technology. The study conducted a meta-analysis of 24 randomized trials to assess the impact of AI chatbots on students' learning outcomes. It was found that AI chatbots significantly enhance learning outcomes, particularly in higher education and during short-term interventions. This suggests that the novelty of AI chatbots can notably improve learning in brief periods, though this effect diminishes over longer interventions, indicating the importance of incorporating features like human-like avatars, gamification, and emotional intelligence to sustain engagement and effectiveness.



Generative Artificial Intelligence for Education and Pedagogy

July 2023 • **Research**

From Cornell University: Educators are encouraged to integrate generative artificial intelligence into their teaching strategies due to its prevalence in both current student use and future workplaces, offering personalized learning and increased accessibility. However, AI also poses challenges like potential cheating, biases, inaccuracies, and ethical issues. It proposes a flexible framework considering academic integrity, accessibility, and privacy concerns.





AI has the potential to disrupt education— but will we allow it to?

May 2023 • **Thought leadership**

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.



Experimental Evidence on the Productivity Effects of Generative Artificial Intelligence

July 2023 • **Research**

This study explores the impact of ChatGPT on the productivity of mid-level writing tasks. College-educated professionals were given incentivized writing tasks where half of them had access to ChatGPT. For those with access to ChatGPT, productivity increased, taking users 40% less time to complete the task and their quality increased 18%. Additionally, inequities decreased among the workers. The participants exposed to ChatGPT during the study were significantly more likely to incorporate it into their work in the weeks after the study.



National 4-H Council Youth AI Survey

February 2024 • **Research**

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.





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

February 2024 • **Research**

This paper outlines how AI tools have improved teaching and learning within Harvard's CS50 by explaining code snippets, improving code style, and responding accurately to curricular and administrative queries on the course's discussion forum. A suite set of AI-based tools was integrated into the CS50 course. Initially piloted with 70 students during the summer, these tools expanded to thousands of online students and several hundred on campus in fall 2023. The course policy promoted these tools over commercial AI software, like ChatGPT or GitHub Copilot, fostering guidance toward solutions rather than direct answers. Students responded positively, likening the experience to having a personal tutor. Their findings demonstrate how integrating AI thoughtfully in education can enhance the learners' experiences and provide customized support while enabling educators to address more complex pedagogical issues.



One Useful Thing

2024 • **Thought leadership**

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](#).



What can Copilot's Earliest Users Teach Us About Generative AI

November 2023 • **Planning support**

This report highlights the impact of Microsoft Copilot, a generative AI assistant, on knowledge workers' productivity and efficiency. Users leveraging copilot have seen notable enhancements in task execution, including writing, summarizing, searching, and collaboration, leading to considerable time savings, quality improvements, and reduced effort. Additionally, the report examines copilot's potential to enhance organizational functions and outcomes across sales, customer service, security, and finance, suggesting a significant positive influence on workplace performance and capabilities.





The Cool Cat Teacher Blog

2024 • **Thought leadership**

The Cool Cat Teacher Blog by Vicki Davis provides how-to guides, insights, and practical strategies to incorporate generative AI tools into K–12 education. Examples of this work include using AI to create substitute lesson plans, building your own GPT's, and ways to develop automations using AI that save time and make teachers more efficient.



Revealing an AI Literacy Framework for Learners and Educators

February 2024 • **Planning support**

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.



Australian Framework for Generative Artificial Intelligence (AI) in Schools

November 2023 • **Research**

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.



Frequently asked questions

What is generative AI?

Generative AI refers to artificial intelligence technologies that can create content, such as text, images, or simulations, by learning from vast amounts of data.

Which Microsoft tools can be used by education institutions?

All Microsoft tools can be used by education institutions and some generative AI tools are restricted by age. Depending on the age of the user, education institutions can leverage various Microsoft tools, including Microsoft Copilot, Copilot for Microsoft 365, Copilot in Windows, Microsoft Teams for Education, Azure AI for custom solutions, GitHub for Education, and Learning Accelerators. Learn more about all of [Microsoft's AI solutions](#).

Are there studies or evidence demonstrating the effectiveness of AI tools in educational settings?

Yes, there are studies indicating that AI tools can significantly benefit educational settings by providing personalized learning experiences, automating administrative tasks, and facilitating data-driven decision-making, thereby improving learning outcomes and operational efficiency. One example published in December 2023, Math Education with Large Language Models¹, found that generative AI-based math instruction positively impacted learning.

How do Microsoft's AI solutions support accessibility for all students, including those with disabilities?

Microsoft incorporates features like speech-to-text, language translation, content readers, voice assistances, computer vision and personalized learning options, which can help to accommodate diverse abilities and learning needs, including those of students with disabilities.

What mechanisms are in place to safeguard that the content generated by these AI solutions is appropriate for school settings and safe for students?

Microsoft's AI solutions are governed by guidelines to ensure age-appropriateness and help safeguard a positive educational environment. Read more about Microsoft's commitment to [Responsible AI](#).

¹ Math Education with Large Language Models



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 lit reviews and other content analysis.

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

Protect student data privacy by using AI tools that comply with data protection laws, implementing robust cybersecurity measures, and educating students on digital privacy.

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

Help prevent academic dishonesty by setting clear expectations and encouraging originality and critical engagement with AI-generated content. Consider updating your course syllabus to set clear expectations about AI use.

How can Microsoft AI solutions be customized to align with our institution or department's specific curriculum standards, instructional goals, and educational objectives?

AI solutions can be tailored to district curricula and aligned with standards and goals, through customizable content and adaptable learning modules. Review the education prompts library on [GitHub](#) for examples of how AI can help you do this.

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 Studio](#) and [Microsoft Fabric](#) can help provide detailed insights and analysis. See the AI Navigators to review examples.

What kind of training and professional development will be provided for educators and staff to effectively use and integrate these AI solutions into their instructional practices?

Training on the effective use of AI tools for faculty and staff should include integration strategies, pedagogical approaches, and ongoing support to ensure successful adoption. See the [professional learning](#) section for additional information.





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