

Microsoft AI

Amplifying human ingenuity



Microsoft AI

One of the most important topics for humanity today is Artificial Intelligence. Think about the history of human innovation: the wheel, the printing press, the steam engine, human flight, rockets and satellites... These were not just solitary innovations. They were “accelerators” that supercharged human progress in countless other areas. AI may be the biggest accelerator of all.

AI has had its ups and downs, going back many decades. But what’s different now? Three innovations have finally put AI on the fast track: big data, with the internet and sensors everywhere; massive computing power, especially through the cloud; and the development of breakthrough algorithms, so computers can be trained to accomplish more sophisticated tasks on their own with deep learning.

For Microsoft, AI is one of our top priorities. We think that AI will make humans more human and benefit society in ways we can’t imagine. AI has the potential to give each of us superpowers to overcome challenges of all kinds—disease, climate change, illiteracy. With AI, we can make faster and more profound progress in nearly every imaginable field of human endeavor. We are developing AI that will augment the qualities that make us human: our curiosity. Our caring. Our creativity. And our universal desire to make the world better.

The future of AI is still an unfolding story. But as the legendary computer pioneer Alan Kay once said, “The best way to predict the future is to invent it.” As the first generation to live with AI, that is exactly what we will do. All around the world, Microsoft’s AI team is working to fulfill our mission — to empower every person and every organization on the planet to achieve more.



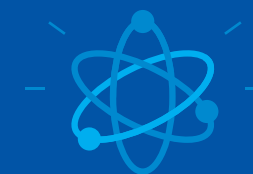
Harry Shum

Executive Vice President, AI and Research Group



Amplifying Human Ingenuity with Intelligent Technology

AI has the potential to empower us all to accomplish more, drive better business outcomes, and achieve breakthroughs that redefine what’s possible. From changing the transportation landscape to discovering new ways of protecting the planet, from reinventing healthcare to connecting with customers, the opportunities are endless.



Innovations that extend your capabilities

AI is infused into products like Office 365, Cortana, Bing, and Skype to help millions of people save time and increase their productivity every day.



Powerful platform that makes AI accessible

Built on breakthrough advances and the power of the cloud, we deliver a flexible platform that empowers developers and organizations to accelerate innovation.



Trusted approach that puts you in control

With our enterprise-grade security practices, we protect your information and put your privacy first. Our principles lead with ethics, accountability, and inclusive design to empower people and organizations, and positively impact society.

AI Products and Services

Microsoft is helping to make innovation faster and more accessible for developers and organizations. By leveraging flexible tools, APIs, advanced machine learning, and the power of the cloud, businesses can advance toward their digital future.

AI Platform

Innovate and accelerate your digital transformation by infusing intelligence into your applications and solutions with powerful tools and services.



Data and Analytics Platform

Discover the most comprehensive data platform for any structured and non-structured data need, with integrated analytics tools to transform data into action.

Bot Platform

Create new experiences and reach users at scale. The Microsoft Bot Framework makes it easy to build and deploy bots across many channels, including Office 365, Facebook Messenger, Cortana, Slack, Skype, Skype for Business, and Bing.

Cognitive Services

Enable your apps to intelligently interpret the world through this collection of powerful APIs and to naturally engage your users through vision, speech, language, knowledge, and search. With a few lines of code, you can build apps that will learn and adapt over time across a multitude of devices and platforms.

Deep Learning

Microsoft Cognitive Toolkit is a free, easy-to-use, open-source, commercial-grade toolkit that trains deep learning models at massive scale. Azure provides the biggest AI supercomputer to train and evaluate your model with high performance provided by GPUs and FPGAs, and virtually infinite scale on every deep learning framework, from Cognitive Toolkit to TensorFlow and Caffe.

Business Solutions

Drive your organization's digital transformation with AI accelerators, solutions, and practices for customer support, sales and marketing support, predictive solutions, and more.



Business Platform

Accelerate innovation and business decisions using the Microsoft Cloud. Organizations can create apps with insight, build freely, deploy anywhere, and protect themselves with industry-leading security and compliance.

Microsoft Graph

Connect to the data that drives productivity within your organization, including mail, calendar, contacts, documents, directory, and devices.

Data Platform

Get value from all of your organization's data—from cloud and on-premises data sources and applications—and transform it into actions with powerful visualizations.

Solution Templates

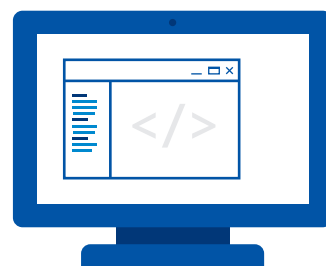
Quickly build solutions from preconfigured templates, machine learning models, reference architecture, and design patterns.

Advanced Analytics and Machine Learning

Create and execute advanced analytics and machine learning wherever your data lives to deliver deeper insights and predictive results for smarter, more confident decision making.

30 Intelligence APIs

Used by over
568,000
developers



From more than

60 countries



Case Study

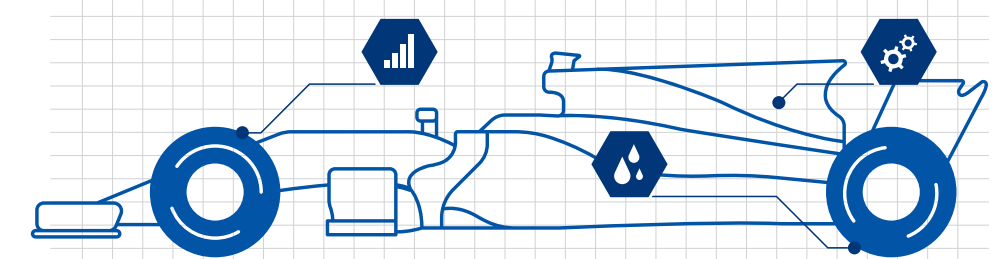
Renault Sport Formula One™ Team

Customer Need

- Fast, on-the-ground innovation
- Ability to process large data sets

AI Solution

- Automated predictions on car performance
- Increased agility through real-time simulations and collaboration
- Increased ability to react to changing environments



AI Products and Services

“Cognitive Services provides the broadest and deepest set of developer services for AI in the industry.”
—Harry Shum, Executive Vice President, AI and Research Group

Intelligence Infused into Microsoft Offerings

We're infusing intelligence throughout our own products to enable millions of people to realize the benefit of AI today and advance our AI platform.



Empower productivity with Office 365

Enhance your workflow with applications central to your organization's productivity, communication, and business processes—all infused with AI.

Supercharge your apps and services with Bing

Reach new users, keep them engaged, and monetize with services that add smarts to your apps and experiences.

Deepen your customer engagement through Cortana

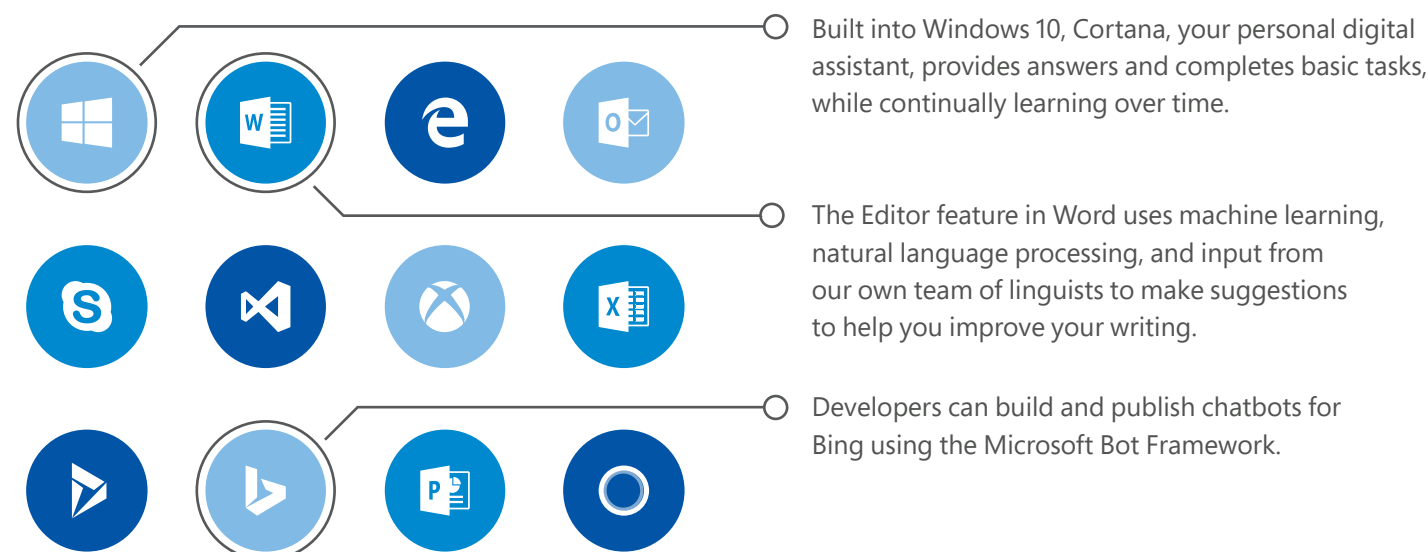
Cortana is the personal digital assistant for both work and life used by millions of users—and now you can reach these customers wherever Cortana is through the Skills Kit.

Transform how you do business with Microsoft Dynamics 365

Drive your digital transformation with our cloud business applications that use customer data and insights, LinkedIn integration, and intelligent technology to improve business processes.

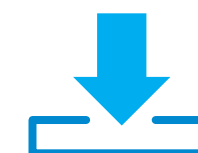
Break down language barriers with Microsoft Translator

Connect with people across the globe using technologies such as cognitive services and neural networks, translating conversations in real time via text, voice, and video.



Speak naturally

Cortana uses natural language processing to understand what people want, so you don't have to code for every variation. Whether someone says "I need a taxi" or "Call me a cab," Cortana gets it.



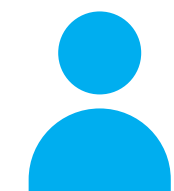
No download required

Skills are available immediately—users don't need to enable them or download an app. Anyone who uses Cortana can become your customer right away.



Get discovered

Cortana's skill directory showcases the best of her abilities so that users can engage with her skills to get things done.



Make it personal

With a user's permission, Cortana can deliver unique, personal experiences based on her knowledge of user preferences—everything from their favorite food to the location of their next meeting.

Human-Centered AI

AI Design Principles

At Microsoft, we believe that ethics and design go hand in hand. AI technology should not only be transparent, secure, inclusive, and respectful, but also maintain the highest degree of privacy protection. These principles guide the design of our own products and services and are what we aspire to be debated and adopted more broadly across industries and society.

Build in transparency

Use intelligible machines to educate users about how technology recognizes and analyzes information.

Maintain dignity

Prioritize preserving cultural commitments and empowering diversity.

Encourage algorithmic accountability

Create new technologies with the expected and the unexpected in mind.

Guard against bias

Ensure proper, representative research so that the wrong heuristics aren't used to discriminate.

Design for privacy

Adopt protection that secures personal and organizational information in ways that earn trust.

Augment human capabilities

Design technology that assists humanity and respects human autonomy.

The power of AI to transform nearly every human endeavor is enormous, and we aim to build trust through maintaining clear principles and strong partnerships that put humans first.



Partnership on AI

Microsoft, along with other industry leaders, academics, and specialists, joined the Partnership on AI to collectively develop best AI practices, work to advance public awareness, and provide an open platform for discussion and engagement around AI's impact on our communities.



Emotional Intelligence in AI

High IQ is standard fare for AI products across the industry, but we believe emotional intelligence, or EQ, is just as important. By creating AI that people are emotionally invested in, we create opportunities for high engagement that help create lasting, positive, change on humanity.



AI for Earth

We help our partners convert vast amounts of data about our natural world into actionable insights more quickly. With human ingenuity and deep learning, we are empowering others to develop effective solutions and create a healthier, more sustainable future for the planet.

Microsoft's partnership with Chesapeake Conservancy, Washington Department of Fish and Wildlife (WDFW), and ESRI combines environmental data into an AI algorithm that updates real-time reports and mapping for a wider audience.

Customer Need



A means for resource and data sharing across organizations

AI Solution



Incorporates cutting-edge technologies, including Microsoft Azure and ESRI's ArcGIS mapping





Get Started on Your Digital Transformation with Microsoft AI

At Microsoft, we believe AI should be used to support you at home and at work, extend your capabilities, free you up for more creative and strategic endeavors, and help you or your organization achieve more. So, whether you're interpreting data, looking for more ways to naturally engage with your customers, or driving your organization towards a digital future, Microsoft AI has the platforms and products to help you achieve your goals. Learn more at Microsoft.com/ai.

Microsoft provides access to a broad partner ecosystem and open technology, giving you the tools you need to succeed in a digital future.



Engage your customers

with stronger relationships



Transform your products

with reinvented business models and digital content



Empower your employees

with tools for collaboration and productivity



Optimize your operations

with enhanced service models and continuous improvements