
avanade
Unlock generative AI
to personalize interactions,
uncover insights and
help healthcare work better
Do what matters

What is Generative AI?

Generative AI is the newest generation of AI based on incredibly massive data sets. It is poised to help organizations reinvent productivity, operational processes and human experiences. Generative AI consists of trained Large Language Models (LLMs) that generate rapid responses specific to natural language questions.

What is ChatGPT and OpenAI? ChatGPT is a chatbot developed by OpenAI, an AI research laboratory, that uses generative AI and natural language processing to simulate human-like conversations. GPT stands for generative pretrained transformer.

Knowing how and where to start are essential primers for success

When it comes to generative AI, the main challenge is knowing how and where to start. Because generative AI has such a broad set of potential use cases and applications.

The biggest potential for generative AI

Healthcare organizations have an enormous need to radically repair how work gets done. The global clinician shortage is growing worse. Healthcare workers are overburdened, and healthcare organizations cannot hire or train their way out of this situation.

The biggest potential for generative AI in healthcare worldwide is to free up scarce clinical resources from many of the mundane administrative tasks and to challenge legacy norms that exist in healthcare today.

AI investments in people, a strong digital core and trusted data sources are essential if healthcare organizations are to realize the power of generative AI in a responsible way.

Much of the initial use of generative AI will most likely come from doctors, nurses and healthcare workers employing features embedded in the software they already have. That's why it is important to invest in a 'people first approach' to reimagine how works gets done.

As a starting point, use these three accelerators to identify how and where to synchronize generative AI alongside the people who will use it to gain adoption, build trust and drive value.

1. Enhanced personalization
2. Increased productivity
3. Accelerated data insights

Generative AI is an emerging healthcare imperative.

>50% healthcare organizations plan to use ChatGPT for pilot cases this year.

Create more personalized interactions and save clinician's time

In healthcare, one of the biggest challenges has been in providing personalized care to each patient based on their individual needs and preferences. This requires a lot of data from various sources such as medical records, lab tests, imaging scans and the patients themselves. This data also needs to be interpreted and communicated clearly to the patient and the clinician to make informed decisions.

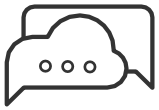
Now, imagine every doctor, nurse and healthcare worker had an assistant that "knew" everything ever known about each patient – the entire history and current state – and could process, analyze and use that information in a matter of seconds, in infinitely repeatable ways.

People-first approach

Use generative AI to help healthcare workers create more personalized patient interactions and better inform providers about potential treatments and therapies based on individual needs of each patient and health plan member.

Use cases

- Capture clinical encounters, including medical device readings and patient observations and automatically generate clinician notes. This can support and save time in documentation for nurses and doctors.
- Help improve the accuracy and efficiency of using generative AI and machine learning in combination with medical imaging techniques, such as CT and MRI scans and help reduce a radiologist's workload.
- Run chatbots with patient-specific educational materials and personalized recommendations for follow-up care.
- Reduce patient waiting times by identifying the patients in most need of care and then target them with personalized coaching that can result in fewer hospital admissions and fewer days in the hospital.



40% of working hours in healthcare could be supported or augmented by language-based AI.

Define productivity initiatives with new expectations and expanded possibilities

An enormous opportunity exists for the use of generative AI in many areas within a healthcare organization including scheduling, billing and general office administration. These processes often make it easier to track cost savings and accuracy of the dataproduced. While some of these processes may have already been automated, the ability to now embed generative AI into the workflow will help further increase staff productivity.

New generative AI models, for example, can more reliably extract data from documents with complex or inconsistent formatting, like a healthcare statement that may have still required manual intervention before.

Use cases

- Generate accurate language translations on-the-fly that are more nuanced than those produced by traditional translation methods.
- Autocomplete scheduling forms and patient check in form filling combined with increased scheduling precision can allow hospitals to fill 40% more shifts.
- Auto-draft requests for prior authorization to be submitted to a patient's insurance have the potential to reduce by more than 50% the 16 hours per week on average for physicians, if done manually.
- Anticipate operating room (OR) scheduling to accurately block and schedule open time slots to surgeons – resulting in a 30% expansion in open OR time.

People-first approach

Use generative AI to help automate and streamline processes, reduce costs so healthcare staff and clinicians spend less time on administrative work and more time taking care of what matters most.

Even novice staff can benefit from Generative AI, getting work done 35% faster.

The power of generative AI is in its simplicity to make data work better

What if you start using generative AI by simply helping a physician sort through his or her mailbox and triage what's important. This routine but complex step means the doctor would have the right information at the right time. He or she could rapidly triage what's most important instead of spending much needed free time catching up on messages after a long day.

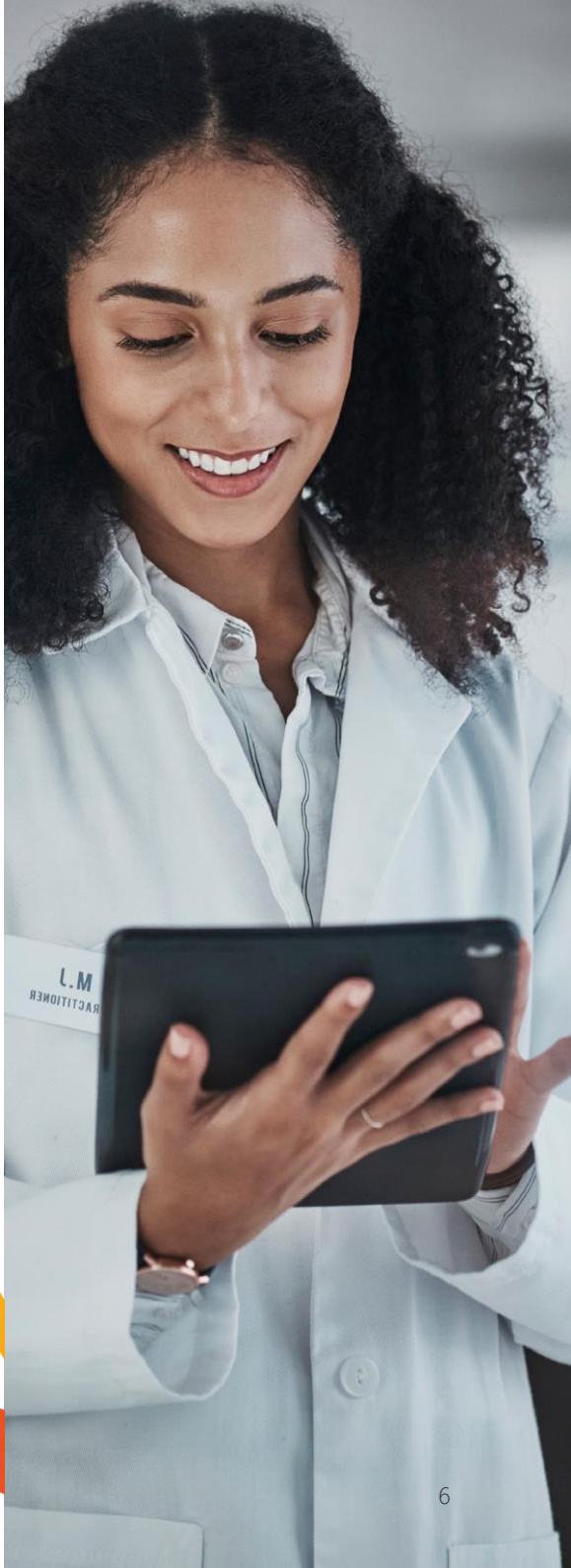
Generative AI doesn't have to be complicated. Its power is the ability to rapidly process and prioritize data and parse queries into fully-fleshed out responses. This type of out-of-the box response often serves as the starting point. Add in that Microsoft is the exclusive cloud provider across all OpenAI workloads and Azure users gain a head start with built-in capabilities in their own cloud-based applications.

Use cases

- Use generative AI as a 'medical knowledge assistant' to rapidly summarize patient records and extract essential information from the patient records such as the medical history, diagnosis and problems before a visit with a patient.
- Identify anomalies and trigger actions, such as informing a person with diabetes that their glucose level is low, so they eat and inform medical staff to decide next best actions.
- Extract data from the electronic medical record (EMR) to automatically generate patient case summary with suspected diagnoses and proposed workup.
- Use data to rapidly match patients for clinical trials and assist them in determining their eligibility to speed sign-up.

People-first approach

Help providers and care teams rapidly connect and analyze data points across systems to fill in missing information and quickly have available more accurate data needed to care for patients.



Generative AI offers significant upside for health insurers – from the front to the back office

Private health insurers could see savings from use cases that improve claims management, like automating prior authorization, along with healthcare and provider relationship management, including reducing hospital readmissions and updating provider directories.

Based on the AI-driven use cases, private payers could save roughly 7% to 9% of their total costs, amounting to $80 billion to $110 billion in annual savings within the next five years.

Use cases

Front Office

- **Sales and Marketing:** Generate plan-specific personalized multichannel marketing materials for potential members based on their demographic and behavioral data.
- **Patient Customer Service:** Use generative AI powered virtual assistants that can rapidly answer questions with member specific claims and benefits information.
- **Explanation of Benefits:** Generate summary of benefits, explained in plain English or other languages to reduce unnecessary patient customer service calls.

Middle Office

- **Utilization Management:** Use claims data to identify areas where utilization could be improved, or unnecessary medical procedures avoided
- **Condition Management:** Develop personalized condition management plans for patients based on their health data and medical history and help lower hospital readmission rates.
- **Network Management:** Analyze provider performance metrics and patient satisfaction scores to identify high-quality providers that could be added, or others with gaps to address.

Back Office

- **Claims Processing Optimization:** Rapidly analyze claims data to identify duplicate claims, higher-than-needed procedure codes (upcoding).
- **Member Services:** generate conversational chatbots to address member questions about claims, reimbursement, billing and related information.

Establish guiding principles to earn and maintain trust

When it comes to generative AI, it is worth stating what seems to be obvious – we must prioritize its responsible use, particularly in healthcare.

Six guiding principals

One important way to establish the responsible use of generative AI is to establish a core set of principles that help guide its use safely, accurately and ethically.

Azure OpenAI Service is Health Insurance Portability and Accountability Act (HIPAA) compliant which will help healthcare companies use generative AI to determine medical outcomes better.

Respect for intellectual property	Review the terms of use related to content sources and ownership for these tools, as each provider may treat these details differently. Consider limiting generative AI use to avoid duplicating others' work, using output as inspiration rather than the final product.
Ongoing, risk-based oversight	Because of how they're trained, generative AI systems may produce unreliable, biased, or otherwise inappropriate content. To reduce this risk, carefully monitor AI output and remove or filter out unwanted language/images before they're published, especially for chat or decision-support use cases.
Social benefit	Help identify and mitigate widespread and long-term societal risks of generative AI systems, like weaponized deepfakes and misinformation. Consider how these systems might contribute to social good rather than simply an increase in digital noise.
Human flourishing	Create policies for generative AI that align with organizational purpose and values. Use generative AI systems to support employees' creativity and quality. Share lessons about how employees can use these models to strengthen their sense of workplace contribution and value.
Sustainability	Track and report on the carbon footprint of generative AI systems and discuss strategies to limit or offset related energy use.
Transparency	Add a disclaimer to any AI-generated content, making it especially clear in cases where affected stakeholders would reasonably assume or expect they're viewing human-created content or interacting directly with a human (e.g., patient services).

One of the key considerations with AI including generative AI are around the legal considerations on how the models are trained, respecting the intellectual property (IP) and source attribution, and overall leveraging the technology in an ethical and responsible manner.

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Build a responsible AI framework and methodology

Avanade works with clients to use an AI framework and methodology to help organizations use AI more responsibly.

01

Assess impact

Determine which of the following impacts are relevant for the project in question and what the current status of that impact is (if any).

Personal Impacts
Societal Impacts
Environmental Impacts

02

Apply values

Decide how to proceed based on org. values.

Values

03

Establish controls

Use technology and processes to achieve and maintain desired outcomes.

Programmatic Controls

Let's get started

For years, Avanade has helped healthcare organizations infuse artificial intelligence to streamline business process, personalize experiences, optimize supply chain and much more.

We have been early testers, adopters and builders with Azure OpenAI and other AI technologies. And we've been at it for years, not weeks.

No other Microsoft partner can match our depth of Microsoft expertise, from data and AI to Azure and beyond.

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Learn | Explore | Build

1

2 Hour Learn & Discuss

Generative AI introduction and Microsoft products and use case overview based on OpenAI. Identify questions and brainstorm use cases.

2

2 Days Hands-on Workshop / Design Thinking

Workshop focusing on deeper dive to prioritize use cases, journeys to explore, and building trust considerations.

3

Depending on Workshop Outcomes

2 Weeks Proof of Concept (PoC) / 2 Month MVP

Directly build a PoC or MVP to prove the technology and value for one use case based on readiness and use case.

OR

6 Week Strategy Assessment

Strategy assessment to help define data readiness, and multiple complex use cases while also reviewing use cases through Responsible AI frameworks, defining a roadmap, and return on investment.

68%

of executives believe the benefits of generative AI outweigh the risks according to Gartner research.

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Avanade is the world's leading Microsoft expert

Founded in 2000 as a joint venture between Accenture and Microsoft, Avanade is the world's most experienced innovator on the Microsoft platform. With unique industry insights, unrivaled expertise and breadth of services, our 60,000 people **do what matters** for our clients and their customers every day.

60,000

Skilled and diverse professionals – **33%** of whom are women

60,000+

Microsoft certifications, more than any other partner

5,000+

global clients since inception

6

Solutions Partner Designations

+ the 7th coveted **Microsoft Cloud Badge**

92

Locations across **26** countries

19x

Winner of Microsoft Global SI Partner of the Year

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Contact Us

Avanade is a recognized leader in delivering Microsoft solutions to health and life sciences organizations. For more than 20 years, we have worked with organizations worldwide developing and implementing solutions. Contact us today.

Contact Avanade
avanade.com/contacthealth

North America
Seattle
Phone +1 206 239 5600
America@avanade.com

South America
Sao Paulo
AvanadeBrasil@avanade.com

Europe
London
Phone +44 0 20 7025 1000
Europe@avanade.com

Asia-Pacific
Australia
Phone +61 2 9005 5900
AsiaPac@avanade.com

About Avanade
Avanade is the leading provider of innovative digital, cloud and advisory services, industry solutions and design-led experiences across the Microsoft ecosystem. Every day, our 56,000 professionals in 26 countries make a genuine human impact for our clients, their employees and their customers. Avanade was founded in 2000 by Accenture LLP and Microsoft Corporation.
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