

Ambient clinical intelligence, Healthcare AI

The power of generative AI in healthcare: Unmasking 5 key factors beyond the hype

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Generative AI has the potential to transform healthcare delivery and quality, but only when it's done right. With hundreds of startups emerging in the healthcare AI market, here are the five factors every clinical and business leader should consider when assessing a generative AI solution and vendor.

There's no doubt about the biggest story in tech over the last year: the rapid rise of generative AI. Although the underlying technology that powers generative AI has been around for many years in various forms, when OpenAI's ChatGPT was made publicly available, it launched a wave of headlines around the world. And just like any technological breakthrough, a wave of hype soon followed, with hundreds of organisations claiming their generative AI app would change the world.

Many of these companies have focused on the healthcare sector, aiming to help organisations use generative AI to overcome key challenges. But savvy healthcare leaders know it's vital to assess a vendor's true capabilities rather than get swept away by the hype and put care quality, clinician wellbeing, and patient safety at risk.

Artificial intelligence: A quick primer

Before we look at the factors that healthcare leaders should consider when assessing generative AI solutions, let's take a moment to clarify some of the terms used (and sometimes misused) in the AI world:

- *Artificial intelligence*: An umbrella term describing a machine's ability to perform tasks that would typically require human intelligence.
- *Machine learning*: Algorithms trained to detect patterns in large volumes of data to suggest

actions and predict outcomes.

- *Deep learning*: Machines that mimic the operations of the human brain to process multiple data types and learn faster with less direct intervention from trainers.
- *Conversational AI*: Systems that understand the meaning, intent, and sentiment of users' natural language and offer relevant, conversational responses.
- *Ambient AI*: Machines that monitor their environment to provide intelligent assistance to users when needed, without having to be specifically prompted.
- *Generative AI*: Deep learning models pre-trained on vast amounts of data, enabling them to produce new content in response to user prompts.

Over the last couple of decades, advances in machine learning and deep learning have had a significant impact on healthcare.

AI has transformed medical imaging, augmenting radiologists' expertise by spotting diagnostic clues that the human eye might miss. Machine learning algorithms have revolutionized drug discovery by rapidly identifying patterns in enormous quantities of data that would take human researchers years to uncover. And some health systems have begun using AI-powered tools to predict likely spikes in demand triggered by the local spread of seasonal illnesses, helping managers allocate scarce resources where they're most needed.

Conversational AI applications that allow clinicians to dictate notes directly into the EHR have dramatically reduced the documentation burden. More recently, ambient AI solutions have emerged that can capture the full patient story at the point of care without the need for dictation. These advanced ambient AI tools can help increase access to care by enabling clinicians to see more patients. And as ambient AI begins to capture patient stories more comprehensively, it could even be used to identify social determinants of health, helping improve care delivery and outcomes.

And now, generative AI is adding to these conversational and ambient AI capabilities by enabling systems to automatically draft clinical notes for physician review immediately after each appointment.

As AI technology in all its forms continues its rapid evolution, it will have a profound impact on every aspect of healthcare—from rare condition research and early disease detection to clinical decision support and personalised medicine.

But this future of AI-augmented clinicians delivering high-quality care and better patient outcomes is only possible if vendors have the right combination of technology, expertise, experience, scale, and responsible use.

Five things to look for in a healthcare AI technology partner

1: AI fine-tuned for healthcare workflows

Widely available generative AI models can provide raw power to analyze data and generate responses. But unless the applications built on these models are tailored for complex, interconnected healthcare workflows, they'll struggle to deliver meaningful value. Look for companies with a record of delivering trusted technology solutions that are relied on by clinicians and support staff in their everyday workflows.

2: A responsible approach to AI

Perhaps more than any other industry, AI in healthcare must be built responsibly and ethically. Good healthcare relies on using highly sensitive patient data and making decisions based on clinical evidence. So, companies should have a strong ethical AI framework that ensures products are built—and used—responsibly. Ask potential companies to share the details of their ethical AI framework with you to make sure they're taking their responsibilities seriously.

3: Deployment and optimization expertise

Many generative AI startups have great ideas. But deploying applications in the real world, scaling them to support entire organizations, and tightly integrating them with EHRs is a very different ball game. Then there's the question of whether a startup will have the ability (or the longevity) to support customers to continually optimize their deployments to deliver maximum long-term value. Check that your prospective vendor can share examples of large-scale technology deployments—remember that success with a small deployment won't necessarily translate into success amid the complexities of large deployments. And ask about their customer support model: Do they provide customer success managers or other support to help you increase adoption and maximize the value of your investment? Leading vendors will have a dedicated customer success team that's supported hundreds of successful implementations.

4: Enterprise-grade dependability

To provide the security, stability, and scalability that healthcare leaders need, AI vendors must have a trusted global infrastructure that has ultra-reliability, ironclad cybersecurity, and strong data governance at its heart. The best vendors will be able to demonstrate their security and governance credentials, and provide verifiable details about availability SLAs.

5: Deep healthcare experience

The best healthcare AI companies will have a long track record of working in the industry and deep partnerships across the healthcare ecosystem—from EMRs and academic research institutes to health systems of all sizes. Look for vendors that can show they're deeply embedded in the sector and have a breadth of interoperable capabilities built to meet the challenges and priorities of healthcare organizations.

The AI-powered future of healthcare

Generative AI is opening the door to powerful new use cases that will transform healthcare in many ways—from offering lightning-fast clinical insights to emergency room staff to giving patients personalized advice that empowers them to manage their care.

And by working with trusted technology partners using solutions proven in real healthcare workflows, organizations can harness the very best of what AI advances have to offer to accelerate advancements in healthcare.

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About Rebecca Schechter

Rebecca Schechter is the Senior Vice President and General Manager of DAX and oversees Nuance's DAX growth strategy, partner and customer relationships, and newly-centralized DAX operations. Rebecca has expertise in driving large-scale growth and operational strategies for rapid global expansion, accelerating innovation, and building strong customer and partner relationships. Prior to joining Nuance, Rebecca served as the CEO of Optum Behavioral, as well as the Executive Vice President of Benefits at Liberty Mutual. She also gained deep global experience during her time at McKinsey & Company, Thomson Reuters, and State Street where she worked and lived across Europe, Asia, and North America. She holds a Bachelor of Commerce in International Business from McGill University and an MBA from Massachusetts Institute of Technology. Rebecca lives outside Boston with her husband and two children.

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