



Google Cloud

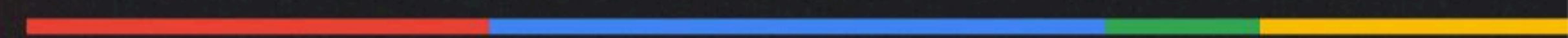
AI Trends 2025

Healthcare & Life Sciences



AI has catalyzed a wave of rapid innovation—and the pace shows no sign of slowing. Its evolving capabilities will continue to drive a radical transformation in how organizations operate, compete, and innovate in 2025.

To map its impact, Google Cloud analyzed data to identify the top five AI trends reshaping business. Here, Shweta Maniar, Global Director, Life Sciences Strategy & Solutions, and Aashima Gupta, Global Director, Healthcare Strategy & Solutions explore what this means for healthcare and life sciences organizations.



Multimodal AI: Unleash the power of context

2025 is a pivotal year for enterprise AI adoption, driven largely by multimodal learning and the contextual awareness it enables.

Multimodal AI mirrors human learning by integrating diverse data sources like images, video, and audio in addition to text-based commands.¹ This unlocks

AI's ability to decipher and learn from a much broader range of contextual sources with unprecedented accuracy, producing outputs that are more precise, customized, and tailored, creating an experience that feels natural and intuitive.²

¹ MIT Technology Review, Multimodal: AI's new frontier, May 2024

² Forbes, Sensing Success: OpenAI, Anthropic And 40+ Others Leverage Multimodal AI, May 2024



We'll see a rise in the adoption of multimodal AI models to analyze data such as medical records, imaging data, and genomic information to draw insightful summaries, moving closer to the vision of personalized medicine.”



Shweta Maniar, Global Director,
Life Sciences Strategy & Solutions,
Google Cloud

Bayer is working to make it easier for organizations to use AI with medical imaging to transform the growing amounts of data into valuable and impactful insights, saving radiologists time and helping them optimize their important work for the benefit of patients. [Learn more](#)

Prudential is using Google's MedLM family of language models to simplify and summarize medical claim-related documents, including medical reports and invoices, for quicker approvals and pay-outs. [Learn more](#)

01

Trend 02

03

04

05

AI agents: The evolution from chatbots to multi-agent systems

Customer agents

Employee agents

Creative agents

Data agents

Code agents

Security agents

AI applications have evolved from chatbots into sophisticated AI agents capable of handling complex workflows. These AI agents show reasoning, planning, and memory; and have a level of autonomy to make decisions, learn, and adapt.

Multi-agent systems are the next phase of evolution. They are composed of multiple independent agents that collaborate to achieve a goal or complex workflow beyond the ability of an individual agent.

“

We expect a surge in healthcare providers and health plans adopting AI agents to automate key administrative tasks, such as nurse handoffs, ultimately freeing up staff for patient care and other higher-value activities.”



Aashima Gupta, Global Director,
Healthcare Strategy & Solutions,
Google Cloud

Elanco, a world leader in animal health, has implemented a gen AI framework, powered by Vertex AI and Gemini, to support critical business processes, such as Pharmacovigilance, Customer Orders, and Clinical Insights. This has resulted in an estimated ROI of \$1.9 million since launching last year. [Learn more](#)

01

02

Q Trend 03

04

05

Assistive search: The next frontier for knowledge work

AI has changed the way the world discovers information, creating a shift from retrieving to creating knowledge.

Advanced AI-powered search technology includes site search, product search, and customer support self-service search.

It is helping organizations enrich and optimize product data catalogs, save significant manual work, and improve conversion and cross-selling efficiency.

[Learn more about enterprise search](#)

“

We expect to see greater adoption of intuitive, contextual search that understands medical terminology, complex vocabulary, and abbreviations —helping relieve administrative burdens for medical professionals, while improving patient education and research.”



Aashima Gupta, Global Director, Healthcare Strategy & Solutions, Google Cloud

Mayo Clinic has given thousands of its scientific researchers access to 50 petabytes worth of clinical data through Vertex AI search, accelerating information retrieval across multiple languages. [Learn more](#)

01

02

03

 Trend 04

05

AI-powered customer experience: So seamless, it's almost invisible

Today's real-time conversational insights and speech-based customer support features are a stepping stone, not the final destination of AI-powered CX.

This will be reached when companies can combine customer engagement applications and enterprise search to

provide customers with precisely what they want: experiences so seamless, personalized, and efficient that issues are resolved without a customer even noticing they have interacted with a company's customer service or support technology.

“

In 2025, gen AI will continue to transform how pharmaceuticals and biotech companies interact with regulatory bodies. By summarizing complex data and automating regulatory submissions, gen AI has an opportunity to accelerate review times and potentially reduce the cost of drug development.”



Shweta Maniar, Global Director,
Life Sciences Strategy & Solutions,
Google Cloud

01

02

03

04

 Trend 05

Security gets tighter—and tougher—with AI

2025 is a revolutionary year for AI's adoption into security and privacy best practices.

AI has the potential to become a powerful tool in every security professional's toolkit—

helping to bolster security defenses, identify and combat threats, relieve manual work, and speed up responses.

[Get Mandiant's latest AI-powered threat intelligence insights](#)

“

Healthcare and life sciences companies will prioritize bolstering their defenses against deepfakes, prompt injection, and other threats posed by malicious gen AI use. They will invest in strengthening their red teams and enhancing their systems with capabilities to verify the authenticity of data, medical records, medical or scientific images, and research, among others.”



Aashima Gupta, Global Director, Healthcare Strategy & Solutions, Google Cloud

Bayer leverages Google Cloud to support the identification of security threats and sees value from high security standards. [Learn more](#)

For a deeper dive into these trends, download the full **AI Business Trends 2025** report.

[Download](#)

Google Cloud

