Forrester Unveils Top 10 Emerging Technologies For 2025; AI Innovation Shifts From Experimentation To Business Imperative

May 6, 2025

Agentic AI represents the next frontier in automation, enabling systems to make decisions independently and with intent

CAMBRIDGE, Mass.--(BUSINESS WIRE)--May 6, 2025-- As generative AI evolves into agentic AI, automation becomes more sophisticated, and emerging technologies shift to large-scale deployment, firms will no longer be experimenting with AI by the end of 2025 — they will be racing to keep up with AI's acceleration. However, given ongoing geopolitical volatility, making the right technology investment decisions will be a key lever for business growth and competitive advantage. Forrester's (Nasdaq: FORR) research, The Top 10 Emerging Technologies In 2025, highlights new technologies that empower leaders to drive AI-led innovation while ensuring long-term resilience.

The research categorizes the top 10 emerging technologies by their impacts over short-term, mid-term, and long-term benefits horizons to help enterprises and leaders prioritize their investments. An overview of the top findings is as follows:

Emerging technologies that will offer significant benefits to enterprises within the next two years by balancing AI acceleration with security needs include:

- **IoT security.** As cyber threats increase, IoT security technologies will be critical to strengthening defenses for critical data and connected devices. Businesses with high technology integration will see the biggest benefits from IoT security.
- **Synthetic data.** New to Forrester's emerging technologies list this year, this technology enhances AI model training while improving trust and privacy. With regulators encouraging organizations to adopt synthetic data to minimize risk, industries including financial services, insurance, healthcare, and the public sector will benefit the most.

Mid-term emerging technologies that will deliver benefits to enterprises in the next two to five years given their real-world complexity include:

- **Agentic AI.** The immediate potential of this technology is increased flexibility and adaptability to automate specific business processes. Although early examples of AI agents are promising and offer autonomous decision-making, this technology still requires stronger accuracy, trust, and coordination to become mainstream.
- **GenAI for visual content.** This technology is changing the way companies create and deploy photorealistic images, videos, and motion graphics. GenAI for visual content is poised to make the biggest impact in marketing, advertising, retail, and e-commerce sectors, delivering immersive and personalized preferences, and boosting consumer satisfaction.

The emerging technology that will take at least five more years to deliver tangible value for enterprises:

- **Humanoid robots.** This is the first year that this emerging technology has appeared on the list. GenAI's rapid advancement and decreasing hardware costs are driving the advancement of humanoid robots — autonomous robots that resemble humans in appearance and functionality and are equipped with advanced sensors, AI, and actuators to perform tasks. However, challenges including high research and development costs, and complexities surrounding robot integration into existing workflows and infrastructure will hinder their widespread adoption.

"As AI becomes ubiquitous, business and technology leaders should prioritize investments that will deliver the greatest impact for their organizations in terms of driving business growth, innovation, and competitive advantage," said Sharyn Leaver, chief research officer at Forrester. "Despite global uncertainty, AI's rapid acceleration will continue. Enterprises that strategically balance AI innovation with risk mitigation will be ones that successfully thrive and achieve sustainable growth."

Resources:

- Register for a complimentary webinar to learn about Forrester's 10 top emerging technologies for 2025 and how these innovations apply across industries.
- Register to attend Forrester's 2025 Technology & Innovation Summits in North America, EMEA, and Asia Pacific.

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