



# ARTIFICIAL INTELLIGENCE TRENDS IN 2025



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# 1. AGENTIC AI

AI agents are evolving rapidly and will play an even bigger role in 2025. While they currently excel in simpler tasks and struggle with complex, multi-variable scenarios, often losing track or making inconsistent decisions. However, upcoming advancements promise AI agents will be capable of reasoning, planning, and executing multi-step solutions for intricate problems. This leap could bring that form of automation closer to real-world decision-making, but it will require more powerful and refined models to handle the complexity. Definitely a big trend to watch in 2025!





# 2. Inference Time Compute

Inference time compute refers to the computational resources required by a trained AI model to generate predictions or responses based on new input data. In 2025, we'll see AI models extending inference to include variable "thinking time" based on the complexity of the task. This allows models to reason more effectively without needing extensive retraining. By improving reasoning both during training with better data quality and during inference through advanced chain-of-thought techniques, we probably will see much smarter AI systems.



# 3. (Very) Large Language Models

Frontier AI models in 2024 operated with 1 to 2 trillion parameters, showcasing impressive capabilities trained on vast datasets. However, the next generation of models in 2025 is anticipated to scale significantly, potentially reaching up to 50 trillion parameters. These ultra-large models will unlock next-level advancements in AI performance, enabling even more sophisticated understanding, reasoning and creativity.



# 4. (Very) Small Language Models

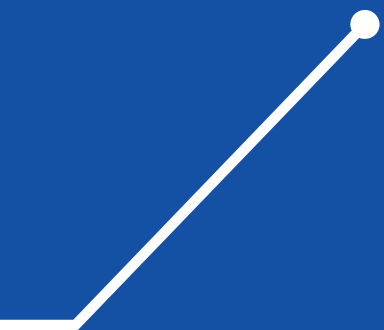
While ultra-large models dominate the AI landscape, 2024 saw growing attention toward smaller, domain-specific models with only a few billion parameters. These compact models are efficient enough to run on laptops or even smartphones, enabling specific tasks without requiring large compute resources. This approach saves time, reduces costs, and increases efficiency, making AI more accessible and practical for targeted use cases. We will see more of that in 2025!



# 5. More Advanced Use Cases

In 2024, AI proved successful in areas like customer experience, simple automation and virtual assistants. Moving into 2025, the focus will shift to more proactive and complex applications.

A prime example is AIOps, which focus on the improvement of IT Operations. With enterprises spending 70-80% of their budgets on IT operations amidst growing system complexity and technical debt, the demand for scalable, efficient and lean IT solutions is immense. When deployed effectively, AI can be a powerful ally in that field. We will see more of that in 2025!



# 6. Near Infinite Memory

AI is moving towards a future where chatbots and virtual assistants can retain and recall everything they know about users. Soon, bots will have the ability to remember every interaction and piece of information shared with them, enabling more personalized, context-aware and seamless experiences. This advancement could redefine customer service and user engagement, ensuring continuity and tailored solutions like never before.



# 7. Human-in-the-Loop Automation

The future of AI lies in seamless human-AI collaboration! Human-in-the-loop systems will evolve to amplify expertise without requiring users to master complex prompts. Combining smarter tools with human intelligence enables amplified impact and greater efficiency. It's all about pairing human expertise with advanced AI systems to create smarter, more effective solutions. We will see more of that in 2025!







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