



# How to 'Hire' AI Agents: Webinar Presentation

# Agenda

Market Context: Why Now?

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What Is an AI Agent?

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Where Agents Create Advantage

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AI Agents: Functions

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Problems: Error Accumulation

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Tools: Rule of Thumb

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Challenges and Conclusions

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# About the Speaker

## Sergii Shelpuk

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- Worked in AI & Data Science since 2013
- Led AI & Data Science departments for 4 companies, including a billion-dollar one
- Helped raise \$52.5M in venture founding as a management team member
- Co-founded an AI product for biopharma R&D
- Graduated from LSE and Stanford



**Sergii Shelpuk**

Edvantis AI Consulting Expert,  
Global Strategy and  
Implementation

# About Edvantis

Edvantis is a global software engineering company helping businesses stay competitive in the digital world.

We modernize infrastructure, automate processes, and deliver AI-driven solutions to improve efficiency, agility, and growth.



20+ years of experience



400+ employees



450+ delivered projects



40+ active clients



Top 100 Outsourcing  
Company | IAOP



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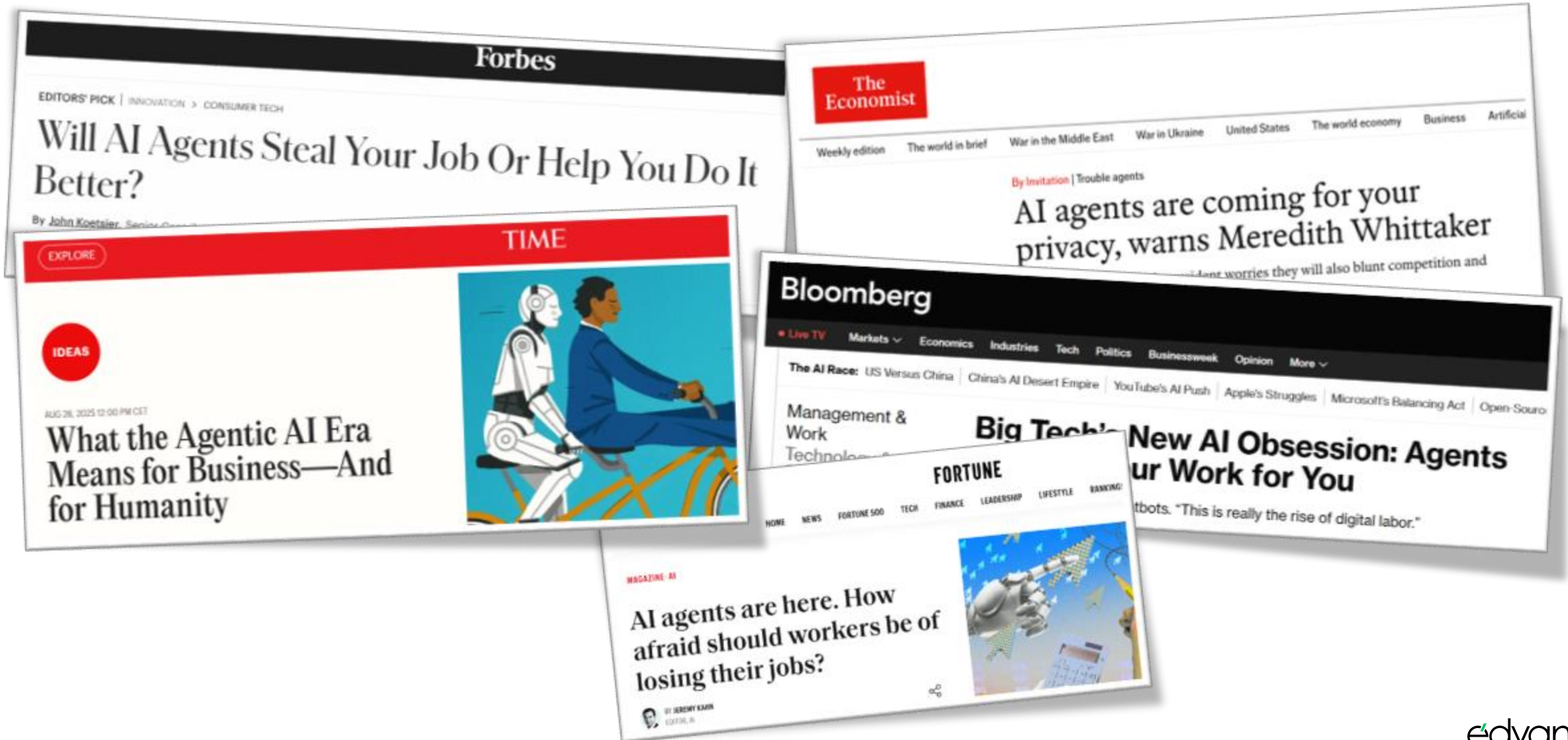


2024 | Clutch Global  
Awards Winner



Software Development  
Services Grid Leader | G2

# AI Agents: Who Are They?



# The Great Job Replacement Debate



## The Panic

Mass job displacement fears driven by AI's ability to handle multi-step workflows that previously required several people.

## The Reality

Current AI adoption is more driven by executive mandates and cost-cutting pressure than actual technological readiness.

## The Gap

Many off-the-shelf AI tools aren't mature enough for complete end-to-end applications, requiring human oversight.



# From Replacement to Augmentation

## The Rise of the "Superworker"

AI enhances human productivity rather than replacing workers entirely. Employees become more valuable by focusing on:

- Strategic thinking and complex problem-solving
- Creative work and system design
- Governance and oversight of AI systems
- High-level decision making

However, this creates a "prolonged readiness gap" where entry-level positions disappear, making it harder for new talent to gain foundational experience.

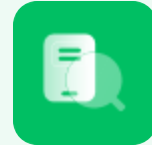


# AI Agents in Finance



## Algorithmic Trading

Real-time market monitoring and autonomous trade execution with dynamic strategy adjustment based on news and economic indicators.



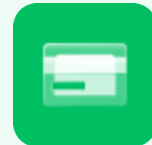
## Fraud Detection

Continuous transaction monitoring with adaptive learning to identify evolving fraud patterns and ensure regulatory compliance.



## Automated Auditing

End-to-end workflow management from data collection to audit-ready reports, with automatic discrepancy flagging.



## Credit Assessment

Dynamic evaluation using alternative data sources for faster, more inclusive lending decisions.



# AI Agents in Logistics



## Demand Forecasting

Analyze historical data, market trends, and external factors like weather to predict future demand accurately.



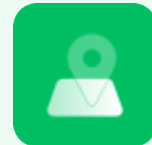
## Dynamic Route Optimization

Real-time route calculation considering traffic, weather, and delivery windows with proactive rerouting capabilities.



## Warehouse Automation

Automated picking, packing, and inventory management integrated with robotic systems for maximum efficiency.



## End-to-End Visibility

Complete shipment tracking with IoT integration and automated customer updates throughout the delivery journey.

# AI Agents in Healthcare



## Diagnostic Support

Medical imaging analysis to detect anomalies and assist radiologists with early disease identification.

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## Clinical Decision Support

Evidence-based treatment recommendations by analyzing vast medical literature and patient history.

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## Administrative Automation

Automated scheduling, billing, insurance verification, and patient onboarding to reduce overhead.



# AI Agents: Who Are They?

## What are AI Agents?

AI agents are software entities that can operate autonomously or with limited supervision, using AI to sense their environment, make decisions, and carry out actions to achieve **defined goals**. ⓘ

Picture a digital colleague that manages travel bookings across airlines and hotels, or a software developer agent that builds and validates new software features from a simple description.

## How It Works



### Observe

Ingests signals from apps, KPIs, and conversations; keeps short-/long-term memory.



### Plan

Uses LLM/SLM reasoning to break goals into steps and choose next best actions.



### Act

Executes via tools/APIs across CRM, HR, IT, order systems; coordinates with other agents.



### Learn & Improve

Self-checks results, corrects errors, and updates playbooks to get faster over time.

# Horizontal vs. Vertical Agents

## Horizontal Agents

### Enterprise-wide productivity tools

- Easy to implement (70% of Fortune 500 use Microsoft Copilot)
- Broad application across functions
- Diffuse, hard-to-measure business impact
- Low risk, low reward

## Vertical Agents

### Function-specific value drivers

- High potential for measurable ROI
- Transform core business processes
- Less than 10% successfully scale beyond pilots
- High risk, high reward

This distinction explains the "GenAI Paradox" - why massive AI investment yields slow productivity gains. Organizations easily adopt low-impact horizontal agents while high-impact vertical agents remain stuck in "pilot purgatory."

# AI Agents: Functions

In the early days of ChatGPT, people noticed that you could prompt the LLM to choose a proper function for the task.

You are presented with a user request and functions. Your task is to respond with the function name that should be used to complete this task, or None if no function is required.

Request:

What is the weather in Würzburg today?

Functions:

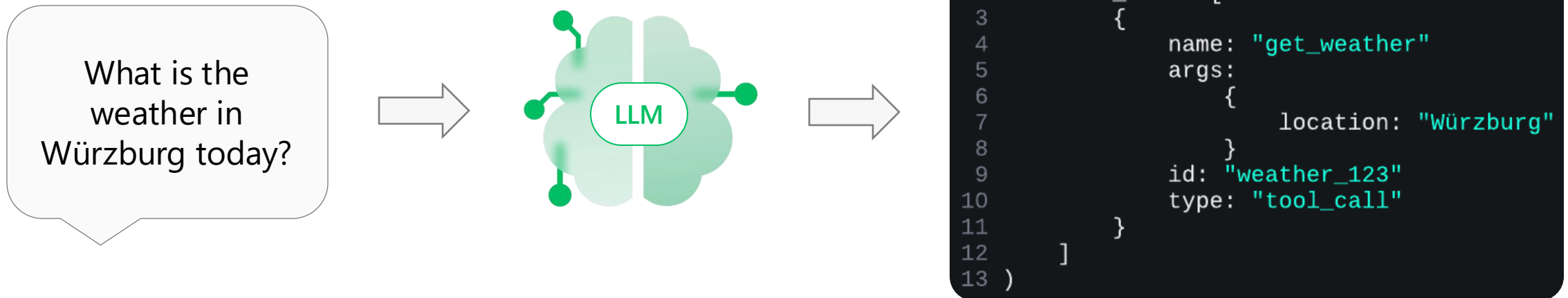
- get\_time - returns current time per timezone.
- get\_weather - returns current weather per location.
- get\_currency - converts currency pairs.

get\_weather



# AI Agents: Functions

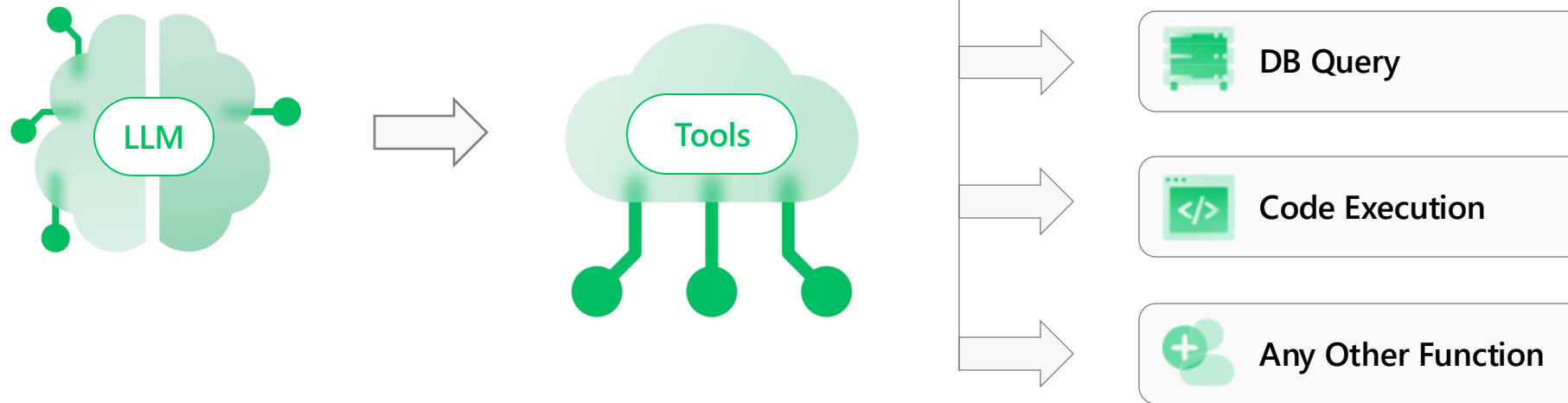
This ability was turned into a separate LLM feature: **function calling**.





# AI Agents: Functions

Agents can connect to any system that provides an API. It can also run custom software code.



# Problems with Agents: Error Accumulation

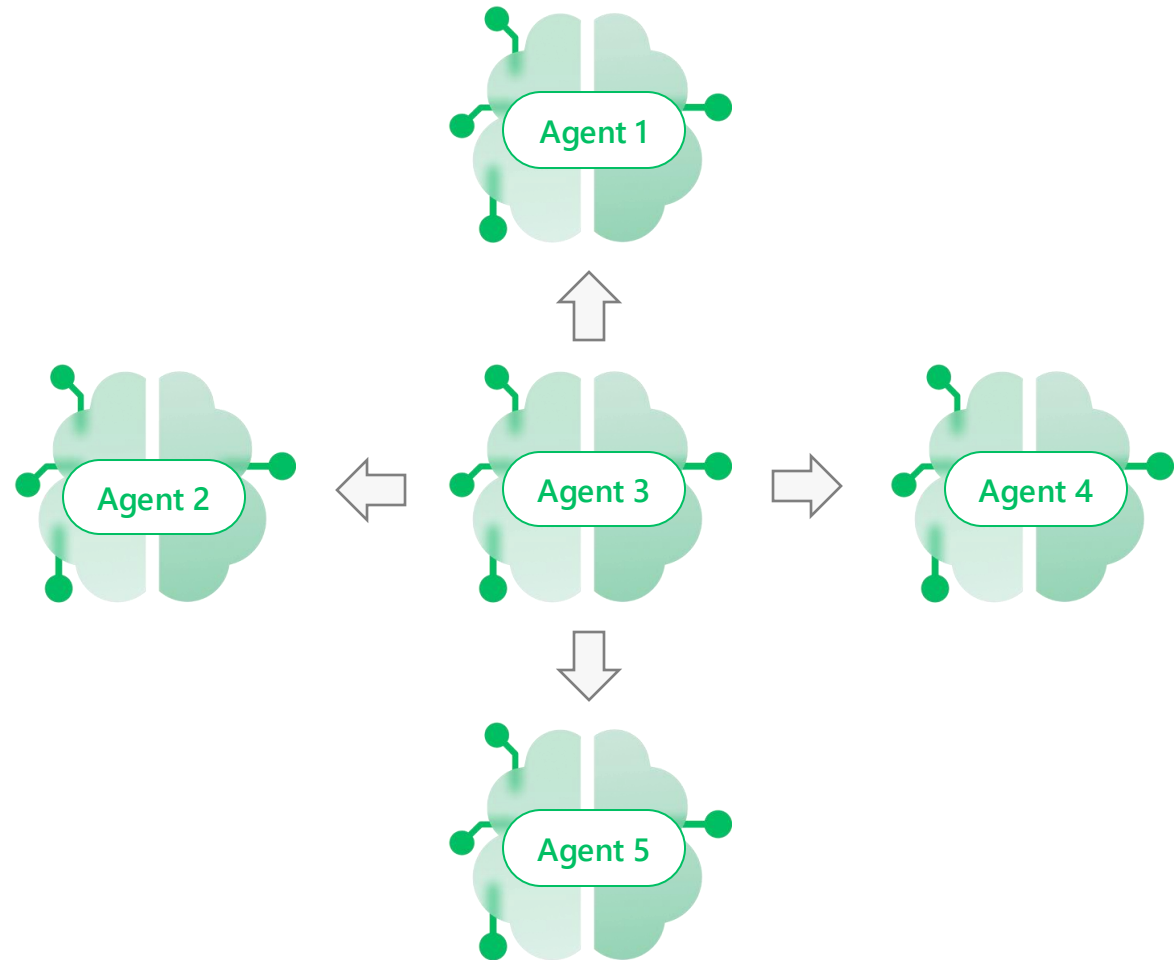
If one agent is **90% reliable**, the chain of 5 agents is  $0.9^5 = 59\%$  **reliable**.

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# Problems with Agents: Error Accumulation

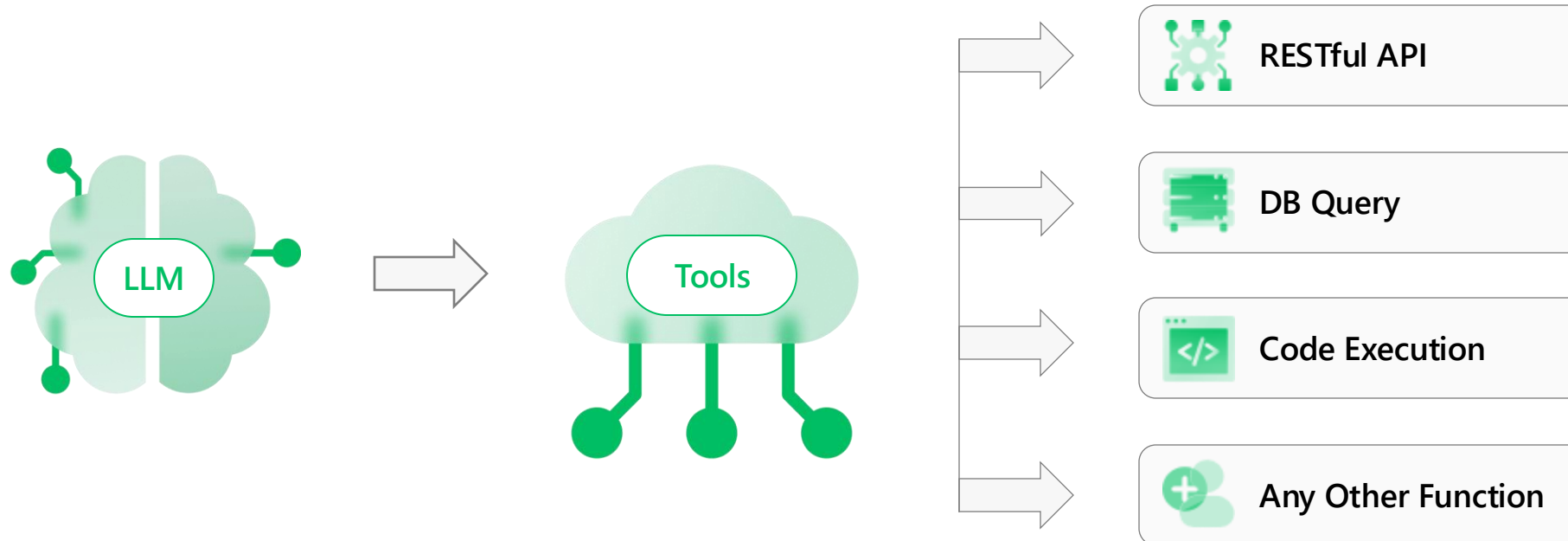
If one agent makes a **mistake** in 10% of the cases, the probability that at least one of 5 agents will fail is  $1 - (0.9^5) = 40\%$ .



# Tools: Rule of Thumb

From our experience, an agent cannot reliably combine **more than 3 tools**.

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# Challenges

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## Gartner Predicts Over 40% of Agentic AI Projects Will Be Canceled by End of 2027

SYDNEY, Australia, June 25, 2025

An MIT report that 95% of AI pilots fail spooked investors. But it's the reason why those pilots failed that should make the C-suite anxious



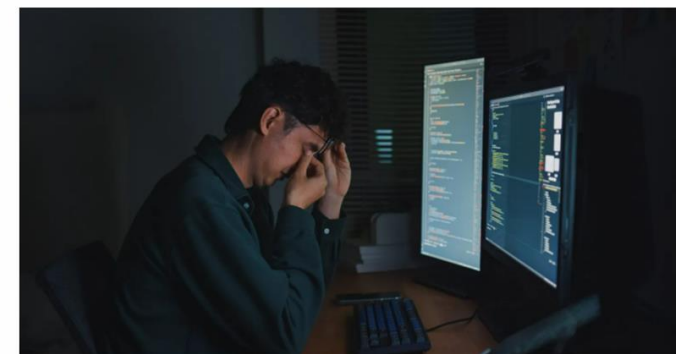
BY JEREMY KAHN  
EDITOR, AI

August 21, 2025 at 12:57 PM EDT

**FORTUNE**

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An MIT study that found that 95% of AI pilot projects fail spooked the stock market this week, driving the shares of many tech companies sharply lower. But the reasons for the failures the research highlighted were less about the underlying tech and more about the poor choices companies are making in using it.

PHOTO ILLUSTRATION BY GETTY IMAGES

# Best Practices for Success

## Organizational Blueprint

### 01. Strategic Alignment

CEO-sponsored programs with clear business value and quantifiable KPIs

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### 02. Cultural Transformation

Cross-functional teams, data-driven culture, comprehensive training

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### 03. Phased Implementation

Start small, prove value, scale systematically with continuous monitoring

## Technical Playbook

### 01. Design for Simplicity

Start with simplest architecture, add complexity only when necessary

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### 02. Ground in Reality

Implement RAG systems, optimize for cost-performance, ensure data quality

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### 03. Build Guardrails

Comprehensive testing, continuous monitoring, human-in-the-loop systems

*"Success requires replacing hype-driven experimentation with disciplined, value-focused innovation. The agentic enterprise will be built by those most deliberate and strategic in mastering implementation."*



# Insights and Conclusions

**Question to answer:** How can we adopt this safely and see results?



## Beware the Hype

- ✓ Avoid agent-washing\* and pilots with no measurable ROI.
- ✓ Test ideas but cut quickly if value isn't proven.



## Focus on Enterprise Value

- ✓ Don't just bolt agents onto legacy workflows.
- ✓ Rework processes so agents actually improve speed, cost, or quality.



## Close the Learning Gap

- ✓ Train teams on how to design and run AI-powered workflows.
- ✓ Success depends as much on people as on models.



## Pick High-Impact Use Cases

- ✓ Start with areas that cut costs or remove friction.
- ✓ Don't over-index on flashy marketing pilots with weak ROI.

\*Agent-washing involves passing off existing automation technology, including LLM-powered chatbots and robotic process automation, as agentic, when in reality it lacks those capabilities. [Forbes](#)

# How We Can Help You with AI



## AI Readiness & Strategy

- ✓ Evaluate your goals, tech, and data
- ✓ Identify practical AI use cases for your business
- ✓ Build your AI roadmap



## Data Preparation

- ✓ Clean, structure, and connect your data
- ✓ Set up pipelines and integrations
- ✓ Make your systems ready for AI



## ML & Model Development

- ✓ Build models for prediction, classification, and clustering
- ✓ Use real data to train and tune
- ✓ Apply supervised or unsupervised learning



## Gen AI & LLM Integration

- ✓ Set up LLMs that “talk to your data”
- ✓ Build chatbots and AI assistants
- ✓ Use tools like OpenAI, LLaMA, and LangChain



## Process Automation

- ✓ Automate tasks like document handling
- ✓ Use AI to summarize and classify
- ✓ Boost speed and accuracy in operations



## System Integration

- ✓ Connect AI to your apps and tools
- ✓ Sync with CRMs and workflows
- ✓ Make everything work smoothly at scale



# Let's Talk About Your Needs

## Book an AI consulting session with our Team

We'll help you find practical ways to apply AI in your business.

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Email us at: [engagement@edvantis.com](mailto:engagement@edvantis.com)

Or talk to your Edvantis Account Manager.



### What You'll Get:

- ✓ **AI Fit Check** – where AI makes sense in your business
- ✓ **Automation Ideas** – low-hanging use cases worth exploring
- ✓ **Next-Step Guidance** – what to test, build, or consider first

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Thank you