

FROM STATIC MODELS TOWARD AUTONOMOUS AGENTS

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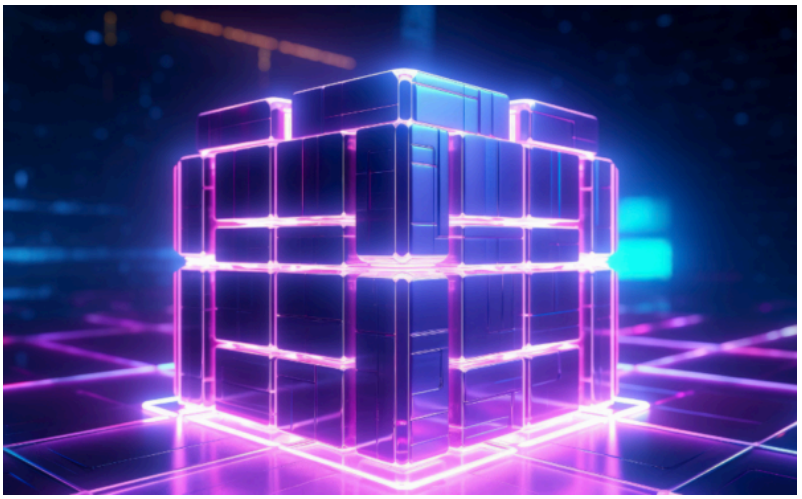
In 2026, the focus of AI has shifted from basic implementation to scaling autonomous systems. Gartner projects that, by 2028, one-third of all generative AI interactions will depend on autonomous agents.

In this month's edition:

- We explore how **post-memory training empowers AI agents** to actively manage their own cognitive state, reducing computing costs while matching the accuracy of larger models.
- Our new white paper, People Analytics Beyond Turnover Prediction: Potential Applications of AI in HR, reveals how HR leaders are leveraging autonomous agents across the employee lifecycle to **personalize development and forecast absenteeism**, moving far beyond basic turnover prediction.
- We discuss AI's transformative impact on manufacturing, highlighting that **predictive maintenance can cut downtime by 30%**, provided organizations implement robust operational governance.

Part I – Post-memory training: Teaching agents to remember, not just retrieve.

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Read the Article

Historically, organizations customized AI behavior through expensive fine-tuning requiring massive computing power and specialized engineers, explains Artefact's **Victor Coimbra**, Partner and Data Platform & IT Lead. As conversational context grows, **costs scale quadratically, and models struggle to retain relevant information**. Traditional solutions like retrieval-augmented generation or heuristic rules fall short because they rely on semantic similarity or rigid, human-designed logic. **Post-memory training offers a more accessible alternative**, which uses **reinforcement learning during the post-training phase to teach the model how to manage its own cognitive state**. The agent learns through trial and error when to store, update, delete, or retrieve information to complete a task. *"This method requires significantly less computing power, allowing smaller organizations to build highly functional autonomous agents,"* states Victor. Key architectural insights include:

- Smaller models using post-memory training can **match or exceed the accuracy of much larger models** while reducing inference latency.
- Agents can **maintain a constant memory size** by generating an internal state and discarding previous context.
- Specialized memory operations allow models to **process massive documents with linear complexity and minimal performance loss**.

Part II – From memory to navigation: Scaling autonomous agents beyond retrieval.

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Recent advancements in post-memory training and recursive language models offer a highly accessible path for **scaling autonomous AI agents**. Historically, organizations relied on expensive fine-tuning or rigid RAG to manage long contexts. Today, **reinforcement learning allows models to actively manage their own memory state by deciding what to store, delete, or consolidate**. Furthermore, recursive language models reframe context management as a navigation challenge rather than a simple retrieval task. **Instead of passively receiving data, agents actively explore, filter, and selectively read massive external contexts**. Autonomous AI agents demonstrate these concepts in production, **significantly lowering computing costs and removing the need for specialized machine learning expertise**. As Victor notes, *"The agents that scale in production will not be those with the biggest context windows or the most expensive models."* :

- Agents learn memory management through **trial and error** instead of costly weight modifications.
- Models actively navigate external knowledge rather than relying on passive semantic similarity.
- These approaches **reduce inference costs and prevent reliability degradation** in extended workflows.

People analytics beyond turnover prediction: Potential applications of AI in HR

People analytics beyond turnover prediction: Potential applications of AI in HR.



Download the White Paper

Human Resources is evolving from a reactive cost center to a proactive driver of organizational value. However, many companies still limit their data use to basic turnover prediction. **HR leaders must move from passive dashboards to active orchestration** by integrating machine learning, generative AI, and autonomous agents across the entire employee lifecycle in order to anticipate needs, personalize development, and optimize workforce health well before retention becomes a concern.:

- Autonomous AI agents are replacing traditional HR ticketing systems, allowing HR to **orchestrate seamless career journeys at scale**.
- Real-world implementations can **forecast absenteeism to save costs** and **bypass human bias** to identify diverse leadership talent to deliver financial returns.
- Successful AI deployment requires **robust ethical governance** and strict technical safeguards to **protect employee privacy and maintain trust**. *"AI in Human Resources is often reduced to a single, familiar scenario: predicting employee turnover. Companies that move beyond conventional models are gaining an unprecedented competitive advantage."*

Read the Synthesis

The AI-driven transformation of industrial value chains.

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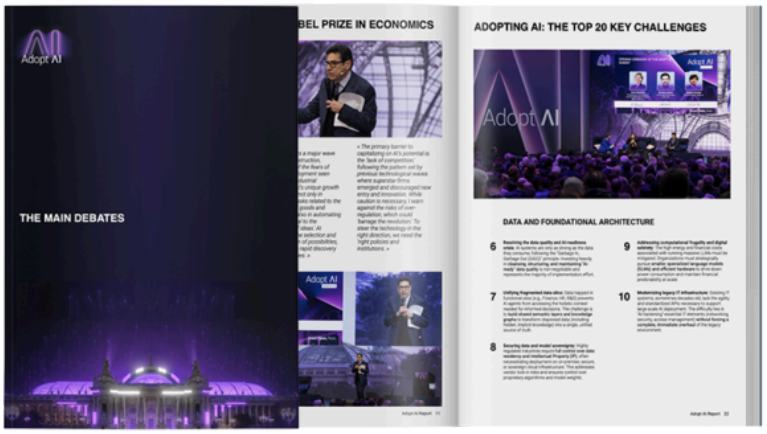


Artefact's **Alexandre Thion de la Chaume**, Managing Partner and Global Lead Utilities & Industry, and **Florence Bénézit**, Partner and Global Lead Manufacturing, explore the challenges of AI in industry and manufacturing, and the conditions that need to be met for AI to become a real driver of performance, innovation, and resilience. Manufacturers are confronting rising energy costs, supply chain disruptions, and strict sustainability requirements. To adapt, companies are implementing AI across their operations to automate complex workflows. *"AI can be used to better predict demand and align the supply chain,"* says Alexandre. Despite these opportunities, fragmented data and strict safety requirements remain significant hurdles. Success requires a strong foundation of data quality and operational governance. As Florence highlights, *"Just as we monitor data quality today, we will need to monitor the quality of AI agents."* Key insights from their conversation:

- Predictive maintenance can **cut maintenance costs and downtime by some 30%**.
- AI-driven automation has the potential to **decrease process durations by 70 – 75%**.
- Deploying AI requires robust governance frameworks to **balance innovation with operational risk and physical safety**.

Adopt AI Summit: Explore the insights from the 2025 edition.

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Produced in collaboration with the **Hub Institute**, the **Adopt AI – Grand Palais 2025 Report** captures the key lessons from last year's discussions at the Grand Palais. As AI moves from pilots to industrial-scale deployment, **the report distills the perspectives of global CEOs, public leaders, and AI pioneers**. It provides a structured view of how organizations can translate ambition into impact. Read the report to equip your organization with actionable insights and operational roadmaps shared during the summit:

- **Strategic frameworks** to move from experimentation to measurable business value.
- Sector deep dives highlighting **concrete AI use cases** across 10 industries
- A **sovereignty roadmap** addressing governance, ethics, and infrastructure in Europe.

Save the date for the 2026 Adopt AI – Grand Palais Summit on December 3-4 in Paris!

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Register for the upcoming events with Artefact in France.

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Artefact Data & AI Webtalks AI for Industry Participate in our webinar Data & AI WebTalks "AI for Industry," hosted by Artefact on **March 31st from 10 AM to 11 AM.** Featuring **AVEVA** and **Neo4j**, we will explore the theme: "*Can the industrial sector's resilience, safety, and performance be entrusted to AI?*"

Register

Exclusive Afterwork Event by Salesforce Artefact and Salesforce invite you to an Exclusive Afterwork event centered on the *2026 Agentic Roadmap: Successfully transitioning to Conversational Marketing*. We look forward to seeing you on April 9th at 6:00 PM at the Salesforce France office.

IMAgine Day – Saison 6 Generative AI & Agentic On April 14, **Orange** will join Artefact at IMAgine Day, organized by the **Innovation Makers Alliance**. We will be presenting the case study: "*My AI Assistant: AI-driven support for Orange customer advisors*."

HubForum – AI for Effiency Plenary session & Masterclass Artefact will be at HubForum on April 15! Join us for a plenary session alongside **Servier**, as well as an exclusive masterclass with **Pernod Ricard**. Register for the event using our special code: **INVITE_ARTEFACT**

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