

Introduction to AI & LLMs

Table of contents

Table of contents	1
What is Artificial Intelligence?	3
What Are Large Language Models (LLMs)?	3
Why LLMs Matter to Businesses	4
Off-the-Shelf Tools vs. Custom AI Agents: The Promise and Limitations of Popular Tools	4
Unlocking Organisational Potential	6
Key Areas of Business Impact	7
Benefits of Custom AI Agents for Your Organisation	10
Practical Use Cases of Custom AI Agents	13
Workshops: Collaboration in Action	16
Reading list	18

**“The IT department
of every company
is going to be
the HR department
of AI agents
in the future.”**

*Jensen Huang
Nvidia CEO, CES 2025*

What is Artificial Intelligence?

Artificial Intelligence (AI) is the simulation of human intelligence by machines, primarily computer systems. These processes include learning (acquiring information and rules for using it), reasoning (applying rules to reach conclusions), and self-correction. In simple terms, AI enables computers to perform tasks that typically require human intelligence, such as decision-making, pattern recognition, and natural language understanding.

AI comes in various forms, from rule-based systems to advanced machine learning models that adapt and improve over time. The potential of AI lies in its ability to process vast amounts of data, uncover patterns, and make predictions far beyond the capacity of any human. For businesses, AI represents an opportunity to streamline operations, enhance decision-making, and increase innovation.

What Are Large Language Models (LLMs)?

Large Language Models (LLMs) are a subset of AI designed to understand, generate, and interact with human language. These models are trained on massive datasets containing text from books, articles, websites, and other written materials. By identifying patterns in this data, LLMs can predict and generate coherent, contextually relevant language outputs.

For example, an LLM can:

- Summarise lengthy documents into concise insights.
- Draft business reports, emails, or creative content.
- Answer questions in a conversational manner, mimicking human interactions.

LLMs like OpenAI's GPT, Anthropic's Claude, and Google's Bard have revolutionised how we interact with technology, making complex AI capabilities accessible to the general public.

Why LLMs Matter to Businesses

The ability to process and generate language is central to many business functions—whether it's customer support, market analysis, content creation, or strategic planning. LLMs can enhance productivity by automating repetitive tasks, extracting insights from complex data, and facilitating communication.

However, the true potential of LLMs goes beyond off-the-shelf tools like ChatGPT. For businesses, customised solutions can integrate LLM capabilities directly into existing workflows, ensuring the outputs align with organisational goals, maintain data security, and provide context-specific relevance.

Off-the-Shelf Tools vs. Custom AI Agents: The Promise and Limitations of Popular Tools

Generative AI tools like ChatGPT, Claude, and Copilot have gained significant attention for their ability to transform individual productivity. These tools excel at tasks such as drafting emails, summarising articles, and answering complex questions conversationally. Their ease of use and accessibility have made them invaluable for professionals seeking quick and reliable assistance.

However, these tools are inherently limited by their design:

- **Individual Focus:** They cater primarily to personal productivity rather than addressing the unique challenges of organisational processes.
- **Generalised Knowledge:** Their training is based on publicly available datasets, making them less effective for handling niche or industry-specific information.
- **Limited Integration:** Most off-the-shelf tools operate in isolation and cannot seamlessly integrate with enterprise systems, workflows, or proprietary databases.
- **Data Sensitivity Risks:** Using these tools often involves sharing data with third-party providers, raising concerns about privacy and compliance.

While these tools are excellent for quick tasks, they lack the adaptability and precision needed for complex, large-scale organisational use.

The Role of Custom AI Agents

Custom AI agents are built to address the unique challenges and requirements of an organisation. Unlike generic tools, these agents are tailored to align with business objectives, processes, and data security needs. Here's how they differ:

- **Designed for Workflows:** Custom AI agents can be embedded directly into existing systems, automating tasks and enhancing processes across departments. For example, they can handle data entry, generate detailed reports, or monitor key metrics in real time.
- **Industry-Specific Knowledge:** These agents can be trained on proprietary datasets, enabling them to provide highly relevant insights that generic tools cannot match.
- **Scalability and Flexibility:** Custom agents are designed to evolve with your business. They can adapt to new challenges, integrate with emerging technologies, and scale to support organisational growth.
- **Privacy and Security:** By operating within your infrastructure or through secure channels, custom agents ensure that sensitive business data remains protected.

Key Differentiators at a Glance

Aspect	Off-the-Shelf Tools	Custom AI Agents
Target Audience	Individual users	Entire organisations
Knowledge Base	General, public data	Industry-specific, proprietary data
Integration	Standalone	Embedded in workflows and systems
Adaptability	Limited	Fully customisable
Data Security	Third-party hosting	Secure, on-premise or private cloud

Unlocking Organisational Potential

Custom AI agents offer organisations the opportunity to go beyond superficial productivity gains. By tailoring AI solutions to fit specific workflows, businesses can:

- Automate complex, repetitive processes.
- Improve decision-making with actionable, data-driven insights.
- Foster innovation by empowering teams with tools designed for their unique needs.

Key Areas of Business Impact

As businesses explore the potential of AI and large language models (LLMs), it's crucial to identify where these technologies can deliver the greatest value. This chapter highlights the areas within an organisation that stand to benefit most from the adoption of custom AI agents.

1. Automation of Repetitive Tasks

One of the most immediate impacts of AI is the ability to automate routine and time-consuming activities, such as:

- **Data Entry and Processing:** Streamlining administrative workflows to reduce errors and save time.
- **Customer Support:** AI-powered chatbots and virtual agents handle common inquiries, freeing up human agents for complex issues.
- **Document Generation:** Automated creation of reports, summaries, or contracts with accuracy and speed.

By automating these tasks, businesses can reallocate human resources to higher-value activities, boosting overall productivity.

2. Enhanced Decision-Making

AI agents can process vast amounts of data to generate actionable insights, enabling leaders to make informed decisions. Examples include:

- **Market Analysis:** Identifying trends and competitive dynamics through data aggregation and analysis.
- **Performance Monitoring:** Real-time dashboards and alerts that highlight critical metrics.
- **Risk Assessment:** Predictive analytics to foresee potential challenges and opportunities.

Custom AI agents, trained on proprietary data, ensure insights are tailored to the organisation's specific context and goals.

3. Improved Customer Engagement

AI agents can enhance the customer experience by delivering personalised and timely interactions:

- **Recommendation Systems:** Tailored product or service suggestions based on customer preferences and behaviour.
- **Proactive Outreach:** Automated follow-ups or notifications to keep customers engaged.
- **Multilingual Support:** Serving a diverse customer base with language-specific assistance.

These capabilities can strengthen customer loyalty and drive revenue growth.

4. Streamlined Communication

Effective communication is essential in any business. AI agents help organisations optimise this through:

- **Internal Briefings:** Summarising critical updates for employees and stakeholders.
- **External Communications:** Drafting and distributing press releases, newsletters, or social media posts.
- **Knowledge Sharing:** Managing and disseminating information within teams to ensure alignment.

AI-powered tools ensure communication is clear, consistent, and aligned with the organisation's voice.

5. Customised Solutions for Industry-Specific Needs

Beyond general applications, AI agents can be tailored to meet the unique challenges of specific industries:

- **Public Affairs and Legal Monitoring:** Summarising legislative developments for timely decision-making.
- **Hospitality:** Generating multilingual guest briefings and automated podcasts for enhanced guest experiences.
- **Finance:** Automating press release creation, ensuring speed and compliance in media relations.

By aligning with industry-specific workflows, custom solutions maximise relevance and value.

6. Scalability and Future-Proofing

As businesses grow and markets evolve, AI agents offer scalability to meet increasing demands. Their adaptability ensures that organisations can:

- Integrate emerging technologies.
- Expand AI capabilities to new areas.
- Stay competitive in an ever-changing landscape.

Benefits of Custom AI Agents for Your Organisation

Custom AI agents offer transformative benefits tailored to the unique needs of an organisation. By aligning AI technology with business goals, these solutions ensure maximum efficiency, scalability, and impact. This chapter outlines the key advantages that custom AI agents provide.

1. Increased Efficiency and Productivity

Custom AI agents automate time-intensive tasks, enabling teams to focus on strategic initiatives. Specific benefits include:

- **Time Savings:** Routine processes like data entry, document generation, and basic customer inquiries are handled quickly and accurately.
- **Resource Optimisation:** AI agents free up human talent for creative and analytical tasks that drive growth.

Example: An AI agent summarises lengthy documents into actionable insights, reducing hours of manual review to minutes.

2. Tailored Solutions for Unique Processes

Every organisation has workflows that reflect its unique goals and challenges. Custom AI agents adapt to these specific needs by:

- **Integrating with Existing Systems:** Seamlessly working alongside current tools and platforms.
- **Leveraging Proprietary Data:** Drawing on internal knowledge bases to deliver contextually relevant insights.

Example: In the financial sector, custom agents automate the creation and distribution of press releases, ensuring compliance with regulatory standards.

3. Flexibility and Scalability

As business requirements evolve, so do custom AI agents. They offer:

- **Adaptability:** Easy updates to accommodate new workflows or changes in industry standards.
- **Scalability:** Expansion to handle increased workloads or new business areas.

Example: A hospitality company scales its AI agent to generate multilingual content for an expanding global audience.

4. Enhanced Decision-Making

AI agents provide data-driven insights that empower leaders to make informed choices. Benefits include:

- **Real-Time Analysis:** Constant monitoring of key metrics and trends.
- **Predictive Capabilities:** Anticipating risks and opportunities through advanced analytics.

Example: A public affairs team uses AI agents to summarise legislative sessions, enabling rapid responses to regulatory changes.

5. Improved Data Security and Compliance

With increasing concerns about data privacy, custom AI agents offer a secure alternative to off-the-shelf tools:

- **On-Premise or Private Cloud Deployment:** Ensuring sensitive information remains within the organisation's control.

- **Compliance with Regulations:** Meeting industry-specific legal and ethical standards.

Example: A legal department deploys AI agents to manage and process confidential case files securely.

6. Future-Proofing Your Organisation

By embracing custom AI solutions, organisations stay ahead of technological advancements. Custom AI agents provide:

- **Vendor Independence:** The flexibility to use multiple LLM providers ensures access to the latest innovations.
- **Long-Term Relevance:** AI agents evolve with the organisation, maintaining alignment with goals and market needs.

Example: A marketing team integrates new AI capabilities to enhance campaign personalisation as customer expectations shift.

The benefits of custom AI agents extend far beyond basic productivity enhancements. They empower organisations to achieve greater efficiency, align AI capabilities with business objectives, and prepare for future challenges. In the next chapter, we'll explore practical use cases where custom AI agents have delivered measurable value.

Practical Use Cases of Custom AI Agents

Custom AI agents have already demonstrated measurable impact across a variety of industries. Below are real-world examples of how organisations are leveraging these solutions to transform their operations.

1. Public Affairs and Legal Monitoring

AI agents can process vast amounts of legislative and legal data, summarising it into actionable insights. Key applications include:

- **Monitoring Parliamentary Sessions:** Summarising debates and decisions for real-time updates.
- **Legal Briefings:** Automating the creation of concise legal summaries for busy teams.

Example: A public affairs firm deploys an AI agent to generate daily legislative summaries, enabling its clients to respond to regulatory changes quickly.

2. Personalised Corporate News Briefings

Keeping teams informed with relevant updates can be a challenge. AI agents address this by:

- **Curating Industry News:** Delivering tailored updates for specific teams or executives.
- **Automating Delivery:** Ensuring consistent, timely distribution of briefings.

Example: A financial institution uses AI agents to deliver customised daily updates for its executive team, improving decision-making and strategic alignment.

3. Hospitality Industry Insights

The hospitality sector benefits from AI agents through enhanced guest communication and operational efficiency:

- **Multilingual Briefings:** Generating content in multiple languages to meet diverse customer needs.
- **Automated Podcasts:** Creating audio content to engage guests in a novel, convenient format.

Example: A hotel chain employs AI agents to produce multilingual PDF guides for guests, increasing satisfaction and engagement.

4. Financial Sector Automation

The financial industry relies on accuracy and speed. AI agents streamline operations by:

- **Press Release Automation:** Drafting and distributing accurate, compliant press releases.
- **Market Analysis:** Summarising complex reports into key takeaways for stakeholders.

Example: A bank integrates AI agents into its media relations department to automate press releases, reducing turnaround times and ensuring compliance.

5. Internal Process Optimisation

AI agents can enhance internal workflows by:

- **Task Management:** Automating repetitive administrative tasks.

- **Knowledge Management:** Organising and summarising internal knowledge for easy access.

Example: A multinational corporation uses AI agents to summarise internal reports, improving efficiency across global teams.

These use cases illustrate the flexibility and adaptability of custom AI agents, showcasing their potential to address industry-specific challenges.

Workshops: Collaboration in Action

The journey to implementing custom AI agents begins with understanding an organisation's unique needs. Workshops serve as a critical first step in this process, offering a collaborative approach to uncover opportunities and align AI solutions with business goals.

1. Tailored Investigative Workshops

Workshops are designed to:

- **Understand Business Challenges:** Identifying pain points and inefficiencies.
- **Map Workflows:** Gaining a detailed understanding of existing processes.
- **Explore Opportunities:** Brainstorming potential AI applications.

Example: A half-day workshop helps a marketing team uncover ways to automate customer segmentation, paving the way for a pilot project.

2. Proven Design Techniques

Activate Intelligence employs proven methodologies to guide workshops, including:

- **Stakeholder Engagement:** Involving key decision-makers to ensure alignment.
- **Iterative Feedback:** Refining insights through collaborative discussions.

3. Knowledge Sharing and Alignment

Workshops also serve as a platform to:

- **Present Findings:** Sharing insights and recommendations with stakeholders.

- **Build Trust:** Establishing a foundation for ongoing collaboration.

Example: A workshop with a legal firm results in a roadmap for implementing AI agents to automate case analysis.

Workshops are not just a starting point—they are an ongoing resource for refining solutions and ensuring their success.

Reading list

How AI agents are reshaping the workforce in manufacturing

This article examines how AI agents are transforming the manufacturing sector by automating repetitive tasks, improving efficiency, and enabling workers to focus on higher-value activities, a clear example of how AI supports operational optimisation.

AI Agents Explained: The Future of Task Automation and Productivity

A detailed exploration of AI agents, their ability to automate tasks, and their potential to revolutionise productivity, highlighting the difference between off-the-shelf tools and customised solutions.

Could artificial intelligence really boost labour productivity? - OMFIF

This article discusses the potential of AI to significantly enhance productivity, providing insights into the opportunities and challenges of integrating AI into various industries.

AI Improves Employee Productivity by 66% - Nielsen Norman Group

A study showcasing how AI tools dramatically improve productivity, offering practical examples of efficiency gains, and emphasising the tangible impact of task automation.

How AI Agents Save Time and Boost Productivity - Amity Solutions

This piece explores how AI agents save time by automating routine processes, enabling employees to redirect their efforts to strategic, high-value tasks.

How generative AI can boost highly skilled workers' productivity

An analysis of how generative AI enhances the productivity of skilled professionals, focusing on how it accelerates workflows and fosters creativity.

Economic potential of generative AI - McKinsey & Company

This report highlights the broad economic opportunities presented by generative AI, emphasising its ability to drive growth and innovation when implemented effectively.

Evidence Shows Productivity Benefits of AI

A comprehensive review of research demonstrating the measurable productivity benefits of AI adoption, reinforcing the value of integrating AI into business processes.

How will AI affect productivity? - Brookings Institution

This article explores the impacts of AI on productivity at both organisational and industry levels, discussing how AI can drive efficiency and competitive advantage.

The human side of generative AI: Creating a path to productivity

This piece addresses how to balance technology adoption with human collaboration, ensuring AI solutions are successfully integrated into workflows and deliver meaningful results.

AI Agents: The future of task management and workforce productivity

An overview of the role of AI agents in transforming task management and workforce productivity, highlighting their adaptability and integration capabilities.

AI creates more work for 77% of employees, says Upwork | UNLEASH

A critical perspective on the unintended consequence of AI tools increasing workloads, highlighting the need for thoughtful implementation to achieve true productivity gains.

Study Finds 77% of Employees Report AI Has Increased ... - Forbes

This article explores how AI can sometimes lead to higher workloads for employees, emphasising the importance of aligning AI applications with organisational workflows and priorities.