

AI AND ADOPTION

What is AI, really, and how does it actually work?

A plain-English explainer for executive teams making real budget decisions about AI.

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WHAT YOU WILL TAKE FROM THIS

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| 01 | A plain-language mental model executives can use in real budget conversations. |
| 02 | Where AI genuinely changes cost curves, and where it does not. |
| 03 | The questions to ask a vendor before signing. |
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Are you tired of hearing the term "AI" thrown around without real clarity on what it actually is—or how it can work in your business? For many business leaders, artificial intelligence feels like a buzzword rather than a tangible tool they can utilise. Let's break it down, demystify the concept, and explore how AI can transform your business operations starting today.

Defining AI Without the Jargon

Artificial Intelligence (AI) is, quite simply, the ability of machines to perform tasks that normally require human intelligence. These tasks include recognising speech, making decisions, predicting behaviour, and even solving complex problems. At the heart of AI are algorithms—instructions that teach computers how to learn, improve, and adapt based on new data.

To put it concisely, AI isn't magic or even "thinking machines." Its advanced technology designed to process large amounts of data quickly, spot patterns, and provide actionable outputs.

Key Forms of AI in Use Today:

- **Natural Language Processing (NLP):** Used in chatbots and virtual assistants like ChatGPT and Alexa to enable machines to 'understand' and respond to human language.
 - **Machine Learning (ML):** Algorithms that improve over time as more data becomes available—think recommendation systems like Netflix or fraud detection in banking.
 - **Computer Vision:** Enabling machines to 'see' and interpret images—used in facial recognition or autonomous vehicles.
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How Does AI Work?

AI's power comes from its ability to process and analyse massive amounts of data. Here's a breakdown of how it functions:

■ Data Collection

AI systems rely on large datasets, which can range from customer purchase histories to healthcare records or manufacturing metrics. The quality and quantity of data are critical for AI's performance.

■ Training Models

Using this data, AI is trained through algorithms to identify patterns and relationships. For example, it learns that "If X happens, Y often follows."

■ Making Predictions

Once trained, AI applies its knowledge to new data to make predictions or decisions. Examples include:

- Predicting a customer's next purchase.
- Detecting potential defects in a product based on images.
- Constant Improvement

AI systems improve over time through feedback loops. The more data they process, the more accurate and efficient they become.

The Benefits of AI for Business

Common Myths About AI

AI holds immense potential, but it's often misunderstood. Let's clear up some myths:

Reality: AI is designed to augment human intelligence, not replace it. By automating repetitive tasks, employees can focus on more strategic and creative work.

Reality: AI systems require high-quality data, clear objectives, and ongoing management to deliver value. They aren't an instant solution.

Despite its challenges, AI has proven its ability to create tangible value, bringing measurable benefits for businesses across industries:

Key AI Risks That Could Impact Your Business

While AI offers numerous benefits, it's not without challenges. Here are the key risks to consider:

- **Bias in Algorithms** AI can inherit biases from the data it's trained on, leading to unfair or discriminatory outcomes if not carefully monitored.
- **Data Privacy** The collection and analysis of large datasets increase the risk of data breaches. Ensuring secure data handling is essential.
- **Over-Reliance** AI is a powerful tool but should not replace human judgment in critical decisions. It's best used to support—not dictate—outcomes.

The Benefits of AI for Business

Artificial Intelligence (AI) is revolutionising industries by offering innovative ways to improve efficiency, enhance customer experiences, and solve complex problems. By integrating AI into operations, businesses can gain a competitive edge while streamlining processes and reducing costs. Below are some key benefits of AI and real-life examples of how it's transforming the way we work.

Enhanced Decision-Making: AI enables real-time data analysis, helping leaders make faster, more informed decisions. AI is transforming the way we live and work, but understanding its strengths, risks, and limitations is key to leveraging its full potential. With the right approach, AI can be a valuable partner in solving complex challenges.

Example: Predictive analytics in supply chains can forecast demand spikes, reducing inventory waste.

Improved Customer Interaction: Personalisation driven by AI boosts customer satisfaction and loyalty.

Example: AI-driven chatbots can provide 24/7 support, handling up to 80% of basic queries so staff can focus on complex issues.

Cost Reductions: Through automation, businesses can cut operational costs without sacrificing quality.

Example: Manufacturers using AI-based predictive maintenance see up to 40% reductions in downtime.

Where Should You Start with AI?

If you're overwhelmed by the idea of integrating AI into your organisation, you're not alone. Many business owners face similar questions—where to begin, what tools to use, and how to measure success.

- 1. Identify Pain Points** Start with your current challenges. Are inefficiencies in your supply chain costing you money? Are customer complaints eating into resources? AI works best when designed to tackle specific pain points.
- 2. Analyse Your Data** The quality of your data determines the quality of your AI. Assess what data you have, its accuracy, and whether it's sufficient to uncover meaningful insights.
- 3. Start Small** You don't need a full-scale AI overhaul to begin. Start with pilot projects in one department. For instance:
 - Implement an AI-driven chatbot for customer support.
 - Use AI tools to streamline marketing personalisation.
- 4. Seek Expert Advice** If you don't have in-house expertise, partner with AI solution providers who can guide you, providing tools and insights tailored to your business.
- 5. Measure, Optimise, Scale** Track and measure outcomes of your AI applications, then refine and scale up what works.

Moving Forward with Confidence

AI is no longer a tool exclusive to tech giants; it's quickly becoming a necessity for businesses of all sizes aiming to stay competitive. Whether it's improving efficiency, delighting customers, or uncovering new market opportunities, AI offers solutions few technologies can match.

That being said, success with AI requires more than just implementation—it demands strategic planning, ethical oversight, and ongoing learning.

Are you ready to unlock AI's potential for your business? Start with trusted, scalable solutions tailored to your needs. Get in touch with us today to explore how AI can empower your team to work smarter, not harder.

ABOUT NUMATA

Numata is a business technology services and solutions provider for small and mid-sized enterprises. We align technology to business outcomes across IT strategy, cyber, data, operations, modern work and AI, delivered through NumataOne™, our strategy enablement framework.

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