AI Fundamentals for Leaders

5 practical visuals for understanding & organising AI in your organisation

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Why this guide?

AI is getting a lot of attention, but for many leaders the challenge isn't just the technology.

It's knowing where it creates value, where it creates risk, & what needs to change for it to become genuinely useful inside an organisation.

This guide brings together five short visual summaries to help leaders make sense of AI in a more practical, grounded way.

Who it's for

This guide is for leaders who want to:

- understand the basics without the jargon
- make better decisions about where AI fits
- support teams to adopt it well
- create the conditions for meaningful, repeatable use

What's inside?

1. **Core Concepts**
   The foundational ideas leaders need to understand
2. **Core Models**
   The main model types, where they're useful, & where they create risk
3. **FAIR Data**
   Why data quality & structure matter more than most AI conversations admit
4. **The Operating Model**
   The structures, choices & accountabilities that help AI create repeatable value
5. **AI Adoption**
   How to support people to change how work gets done

The Core Concepts

Part 1

A practical reference on the fundamentals

What it is

Artificial Intelligence

Software that performs tasks that would normally require human judgement or reasoning.

Neural Network

The type of system modern AI is built on. It learns patterns from data.

Large Language Model (LLM)

The engine behind tools like ChatGPT. It predicts words based on patterns in text.

Generative AI (Gen AI)

AI that creates new content - reports, emails, analysis or code.

How orgs use it

Retrieval-Augmented Generation (RAG)

AI that checks your organisations documents before responding.

AI Agent / Agentic AI

AI that can take actions - update systems, trigger workflows or send drafts - not just write text.

Digital Twin

A digital model of a business process used to test changes safely before launching them.

Copilot vs Autopilot

Copilot supports human judgement. Autopilot acts independently.

Risk & Control

Human-in-the-Loop

A person reviews or approves AI output before it is shared externally.

Guardrails

Rules & technical limits that keep AI within agreed boundaries.

Model Drift

When changes in the real world reduce the reliability of AI outputs.

Explainability

Being able to understand why an AI system produced a particular answer.

Capability & Culture

Prompting

Giving clear, structured instructions to improve AI outputs.

Vibe Coding

Building software mainly by asking AI to generate it rather than writing it manually.

Cognitive Computing

A broad term for AI systems designed to imitate aspects of human thinking.

Data Governance

Ensuring AI systems use secure, compliant & appropriate data.

Hallucination

When an AI system produces a confident answer that is incorrect.

If leaders can't name the concepts, they can't shape the conversation.

The Core Models

Part 2

Different AI models create different capabilities, risks & leadership responsibilities.

LLMs

Common use cases

- Drafting reports & comms
- Summarising long documents
- Internal knowledge assistants
- Customer service responses

Risk areas

- Confident but incorrect output
- Bias or blind spots from training data
- Sensitive data exposure

Common platforms

- OpenAI (GPT models)
- Anthropic (Claude)

Leadership takeaway

LLMs generate patterns from past data. They accelerate drafting but do not replace domain expertise or contextual judgement.

Generative AI

Common use cases

- Marketing content creation (text, images, video)
- Code generation
- Product concept visualisation
- Synthetic media creation

Risk areas

- Copyright & IP ambiguity
- Brand inconsistency at scale
- Deepfakes & authenticity concerns

Common platforms

- OpenAI (DALL·E, GPT)
- Adobe Firefly

Leadership takeaway

When creation becomes cheap, governance becomes strategic. Leaders must define who can generate what, & under what guardrails.

Machine Learning

Common use cases

- Fraud detection
- Demand forecasting
- Personalisation & recommendation
- Risk scoring & pricing models

Risk areas

- Bias embedded in historical data
- Performance degrades over time
- Lack of transparency in decision logic

Common platforms

- AWS SageMaker
- Google Cloud Vertex AI

Leadership takeaway

Machine learning automates judgement at scale. Leaders must decide where automated decisions are acceptable, & where human oversight remains essential.

AI Agents

Common use cases

- Automating workflows
- Booking & scheduling
- Using data to generate reports
- Triggering actions across systems

Risk areas

- Acting on inaccurate information
- Escalating errors at speed
- Unclear accountability for automated actions

Common platforms

- OpenAI Assistants
- Microsoft Copilot Studio

Leadership takeaway

Agents move AI from generating answers to taking actions. Leaders must define decision rights, escalation paths & accountability before autonomy scales.

AI models don't just change the tools you use - they change how thinking, creation, judgement & action are distributed across your organisation.

The Data Foundations (FAIR)

AI system performance depends on the integrity, structure & usability of the data used to train them.

Findable

Existing data should be easy for humans & machines to discover.

Implications

- Teams identify the right datasets for training & evaluation
- Duplicate datasets & "shadow data" are reduced
- Models can be governed to ensure any data that influenced outcomes can be traced back to its source

Example practices

- Maintain a central dataset catalogue or registry
- Assign persistent identifiers & version numbers
- Document datasets with rich metadata

Strategic Risk

If employees cannot easily find trusted datasets, they will recreate them or train models on incomplete or incorrect data.

Accessible

Data can be retrieved by authorised users & systems as needed.

Implications

- Training pipelines can programmatically retrieve datasets
- Access permissions ensure sensitive data is protected
- Data access can be audited

Example practices

- Provide standardised access methods (APIs / Controlled Repos)
- Implement role-based access controls & authentication
- Maintain access logs & governance

Strategic Risk

Data that can't be accessed reliably might as well not exist.

Interoperable

Data is able to work seamlessly across systems, tools & datasets.

Implications

- Data from multiple systems can be combined to train richer models
- AI workflows can move between tools and platforms without major rework
- Data preparation effort is reduced through consistent structures & definitions

Example practices

- Use standard data formats (JSON, CSV)
- Define shared schema & data models
- Adopt common vocabularies & taxonomies across systems

Strategic Risk

The value of AI increases dramatically only when data can connect across systems (rather than remaining locked in silos).

Reusable

Data is well-documented and governed so it's trusted to support new models & experiments.

Implications

- Datasets can train multiple models & support new use cases
- Results can be replicated & validated
- Employees can build on existing datasets (rather than recreating them)

Example practices

- Provide clear dataset usage documentation & context
- Maintain provenance & lineage records
- Define usage licences & permitted uses

Strategic Risk

Poorly documented / licensed data limits reuse & increases the risk of unreliable or non-compliant models.

AI success depends less on algorithms than on the integrity, structure & usability of the data feeding them. FAIR principles ensure data can be found, accessed, connected & reused by both humans & machines.

The Operating Model

Part 4

The structures, choices & accountabilities that turn AI from scattered experiments into repeatable business value.

Strategy

To ensure AI efforts are driven by business priorities, not disconnected innovation.

Focus

- Strategic outcomes & business value
- Where AI can create practical advantage
- Short-term wins vs long-term capability
- Alignment with organisational priorities

Example practices

- Define top 3 strategic AI focus areas
- Set success measures before starting
- Align use cases to business goals
- Review opportunities through a value lens

What this unlocks

A clearer link between AI investment & business value.

Governance

To create the guardrails that make AI safer to use & easier to scale.

Focus

- Responsible use & acceptable boundaries
- Data, privacy & security
- Risk-based decision making
- Lightweight controls over bureaucracy

Example practices

- Define acceptable use guidelines
- Create a simple review path for tools & use cases
- Clarify data handling boundaries
- Involve legal, risk & security early

What this unlocks

Safer adoption without slowing down useful progress.

Ownership

To make accountability for AI clear across leadership, teams & enabling functions.

Focus

- Executive sponsorship
- Cross-functional accountability
- Team-level ownership
- Champions & support roles

Example practices

- Assign owners to strategy & adoption
- Clarify where data & technology teams are accountable
- Identify who supports teams day to day
- Create a cross-functional steering group

What this unlocks

Clear accountability instead of fragmented effort & duplicated activity.

Prioritisation

To focus efforts where AI is most likely to create useful, measurable value.

Focus

- Choose high-value use cases
- Balance impact, feasibility & risk
- Avoid novelty-led decisions
- Sequence effort over time

Example practices

- Build a visible opportunity backlog
- Start with repeatable work
- Stop low-value experiments early
- Define clear criteria for what not to pursue

What this unlocks

More meaningful results from fewer, better bets.

AI doesn't scale through enthusiasm alone. It needs clear choices, clear guardrails & clear accountability.

AI Adoption: Making it Stick Inside Your Organisation

Part 5

Supporting your people to change how work gets done

Training

To build shared understanding & practical confidence.

Focus

- AI Fundamentals
- Tool-specific training
- Role-based use cases (Product, Operations, Leadership)
- Responsible use (risk, bias, data handling)

Example practices

- Online modules
- Short, practical workshops
- Before / after workflow examples

What this unlocks

A shared, baseline understanding of where AI adds value.

Experiments

To create a safe space for teams to try, learn & discover value.

Focus

- Low-risk pilots & use cases
- Rapid learning & feedback loops (speed over perfection)
- Measuring impact (time saved, quality improved)
- Developing clear hypotheses

Example practices

- 2 week sprints
- Test-and-learn backlogs
- Share and celebrate wins and failures

What this unlocks

Proven use cases & clarity on what doesn't work.

Clinics

For ongoing, hands-on support to unblock real work.

Focus

- Live problem solving
- Improving prompts and workflows
- Embedding into day-to-day tasks
- Removing friction

Example practices

- Weekly drop-in sessions
- Pairing with teams on real work
- Bring a task, leave with a solution

What this unlocks

Faster adoption with fewer blockers & shared learning.

Integration

To slot AI into how work actually gets done - not as a side activity.

Focus

- Workflow redesign
- Team ways of working
- Governance & guardrails
- Alignment with business outcomes

Example practices

- Map current vs AI-enabled workflows
- Define AI-first tasks
- Update playbooks & standards
- Form KPIs

What this unlocks

AI embedded into everyday workflows & decision-making.

AI adoption isn't a one-off initiative. It's a sustained shift in how people work.
It only sticks when support for this change is consistent, deliberate & reinforced over time.

Final thought.

The more organisations talk about AI, the clearer one thing becomes:

Most of the real challenges are not technical. They're organisational.

Clarity, prioritisation, ownership, governance and operating rhythm still matter, perhaps now more than ever.

AI may be new. The conditions for meaningful change are not.

How I help.

I work with leadership teams to create clarity, alignment and momentum around complex change. This often includes:

- Portfolio clarity and delivery
- Quarterly planning and prioritisation
- Leadership alignment
- Operating model design

Connect.

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