

Understanding AI: A glossary for boards and directors

Basic AI terms / glossary

From the early 20th century, science fiction and other writing genres introduced the world to the idea of artificially intelligent robots – think Tin Man in the Wizard of Oz! And the actual phrase – Artificial Intelligence – has been around since a workshop in Dartmouth in 1956.

But the way in which AI now permeates almost every aspect of our business lives has occurred at an unprecedented pace. That's why the IoD has worked with the Finance Security Information Exchange (FSIE) to produce this AI glossary.

This intro has been written by a human, but in the spirit of AI, what follows is an edited version generated by ChatGPT:

Welcome to the AI Glossary, your comprehensive guide to navigating the vast landscape of artificial intelligence terminology. Whether you're a seasoned expert or just beginning your journey into the realm of AI, this glossary aims to demystify the complex terminology and concepts that define this rapidly evolving field. Dive in and discover the language of the future, today.

Term	Definition	Simple Explanation
AI (Artificial Intelligence)	Computers able to do things that usually require human intelligence	Smart computer programs
AI Risk Management Framework (AI RMF)	A framework developed by the National Institute of Standards and Technology (NIST) to guide organisations in managing risks associated with the design, development, use, and evaluation of AI systems, with an emphasis on trustworthiness	A helpful standardised approach to managing AI risk. Perhaps most useful as a measure
Algorithm	A set of steps a computer follows to solve a problem	Recipe for computers to follow
App	A computer program designed to do a specific task	AI tools used for specific purposes
ML (Machine Learning)	Computers that automatically learn and improve from data	Computers that learn from experience
Chatbot	A computer program that simulates conversation with humans	AI that can have a conversation with you
Data	Information used by computers to learn and make decisions	Facts and numbers used by AI
Decision	Choosing one option from several, based on data and analysis	AI's choice based on what it knows
LLM (Large Language Model)	A very large and powerful language model, capable of writing different kinds of creative content and answering your questions in an informative way. For example, ChatGPT, Gemini	AI that can write, translate, and answer your questions in a helpful way
Pattern	A repeated occurrence or sequence in data	Regularities found in data
Prediction	A guess about what will happen in the future based on current data	AI's best guess about the future
Robot	A machine that can move and perform tasks independently	Physical machines controlled by AI
Voice Assistant	A computer program that responds to voice commands	AI that listens to you and follows your instructions

AI for Boardroom Discussions

By understanding AI concepts and their implications, boards will be able to make more informed and strategic decisions about their potential use within their organisations, identifying real (or potential) risk, and ensuring development and deployment is well managed, documented and future-proofed.

1. AI Applications in business:

- **Automation:** Replacing manual tasks with AI-powered systems, improving efficiency, and reducing costs.
- **Decision Support:** Analysing data and providing insights to inform strategic decisions.
- **Personalisation:** Tailoring products, services, and experiences to individual customers.
- **Risk Management:** Identifying and mitigating potential risks through data analysis and predictive modelling.
- **Product Development:** Accelerating innovation with AI-assisted design, testing, and optimisation.

2. Ethical Considerations of AI:

- **Bias:** Ensuring AI models are fair and unbiased, avoiding discrimination against specific groups.
- **Transparency:** Understanding how AI decisions are made and providing explanations for outcomes.
- **Privacy:** Protecting personal data used by AI algorithms and respecting individual privacy rights.
- **Accountability:** Determining who is responsible for AI decisions and ensuring appropriate oversight.
- **Job Displacement:** Addressing the potential for AI to automate jobs and mitigating its impact on the workforce.

3. Governance and Oversight:

- **Board-level AI Committee:** Establishing a committee with expertise in AI to oversee its implementation and address ethical concerns.
- **AI Policy Framework:** Defining principles and guidelines for responsible AI development and deployment.
- **Data Governance:** Implementing policies and procedures to ensure data is collected, used, and stored ethically.
- **Risk Management Framework:** Identifying and mitigating potential risks associated with AI technologies.
- **External Audit and Review:** Regularly evaluating AI systems for effectiveness, fairness, and compliance with regulations.

4. Key Performance Indicators (KPIs) for AI:

- **Accuracy:** Measuring how well AI models are performing their intended tasks.
- **Efficiency:** Assessing the cost and resource savings achieved through AI automation.
- **Customer Satisfaction:** Evaluating the impact of AI on customer experience and satisfaction.
- **Revenue Growth:** Measuring the contribution of AI to revenue generation and business growth.
- **Return on Investment (ROI):** Analysing the financial benefits of AI investments.

5. Regulatory Landscape:

- **Privacy Act 2020:** Governs the collection, use, and disclosure of personal information which may be relevant to AI systems that process personal data.
- **Human Rights Act 1993:** Protects fundamental human rights, including the right to privacy and protection against discrimination.
- **Consumer Guarantees Act 1993:** Protections for consumers, relevant in cases where AI systems are involved in consumer transactions.
- **Fair Trading Act 1986:** Prohibits misleading and deceptive conduct in trade.
- **Copyright Act 1994:** May be relevant in cases where AI systems generate or use copyrighted content.
- **Commerce Act 1986:** Deals with competition and fair trading, and could be relevant in cases where AI impacts market competition.
- **Health and Safety at Work Act 2015:** If AI systems are deployed in the workplace, this act may be applicable to ensure the safety and well-being of workers.
- **Crimes Act 1961:** Certain AI-related activities, such as unauthorised access to computer systems, could fall under this act.
- **Emerging regulations:** The New Zealand government is actively considering additional regulations related to AI, such as algorithmic bias and accountability.

For any more information around AI:

- **[NACD resources on AI and Board Governance](#)**
- **[AI Governance website, AI Forum New Zealand](#)**