

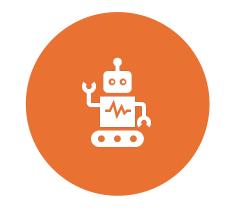
# What is Artificial Intelligence (AI)

Artificial intelligence (AI), is the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings. It is the simulation of human intelligence processes by machines to mimic human cognitive functions like learning and problem-solving.

AI systems are trained on massive amounts of data to recognize patterns, make predictions, and perform tasks with varying degrees of autonomy.



## How does it work?



Machine Learning (ML): algorithms learn from data to improve performance on a specific task without explicit programming



Deep Learning: a type of ML inspired by the structure and function of the human brain. it uses neural networks to process information and make complex decisions.



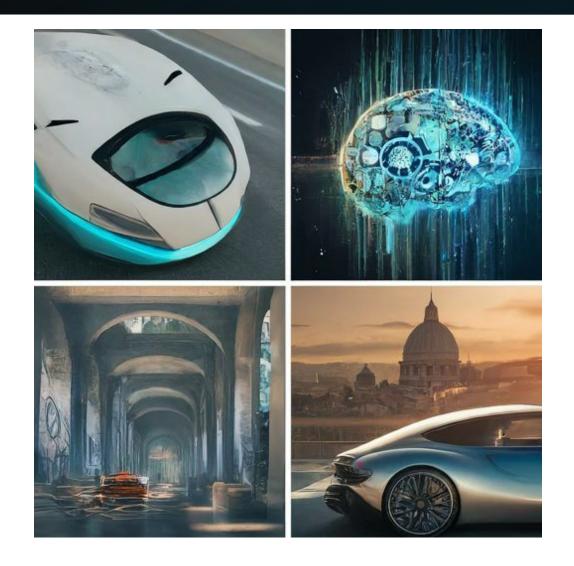








# The Many Faces of Artificial Intelligence (AI)



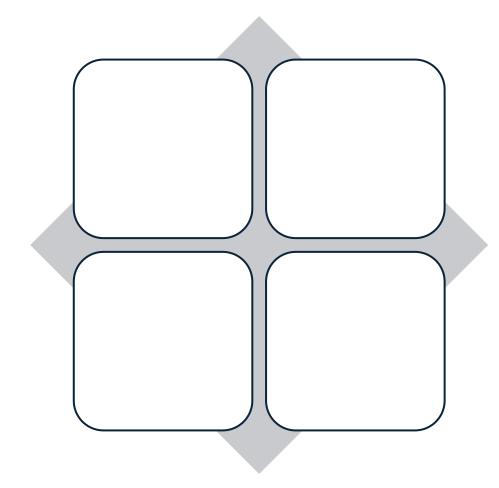
### AI is rapidly transforming various industries:

- Self-driving cars use AI for navigation and collision avoidance.
- AI-powered medical diagnostic tools assist doctors in early disease detection.
- Smart home devices controlled by AI automate tasks and enhance convenience.
- Chatbots powered by AI provide customer service and answer questions.

# Artificial Intelligence (AI) in selected sectors

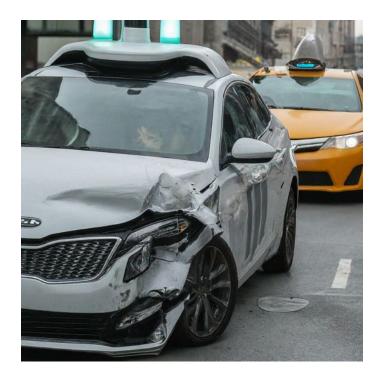


# **Benefit of Artificial Intelligence (AI)**



- ✔ Advantages of AI adoption: Automation of repetitive tasks, increased efficiency, improved decision-making accuracy, and innovation across industries.
- ✓ Real-world examples: Companies using AI to optimize supply chain management, personalize customer experiences, and develop life-saving medical technologies.

# Challenges of Artificial Intelligence (AI)



- Safety and Control: Ensuring the safe and responsible development and deployment of advanced AI, especially in critical areas like autonomous vehicles and weaponized systems, is paramount.
- Ethical Considerations: AI algorithms can perpetuate biases present in training data, leading to unfair outcomes. For instance, an AI algorithm used in loan applications might favour certain demographics based on biased data.
- Job Displacement: As AI becomes more sophisticated, some jobs may become obsolete, requiring human workers to adapt and develop new skillsets.
- Privacy Concerns: The vast amount of data required to train AI systems raises privacy concerns.

### Conclusion

#### **Summary of Key Points:**

- □ AI encompasses a wide range of technologies and methodologies, including machine learning, deep learning, natural language processing, and robotics.
- □ AI applications span various domains, including healthcare, finance, transportation, education, and entertainment, driving innovation and transformation.
- □ Embrace AI as a powerful tool for innovation, but also recognize the importance of responsible AI development and deployment.
- □ Invest in AI education and training to equip yourselves with the skills and knowledge needed to leverage AI effectively.

Questions And Answers

