

The Rise and Rise of AI

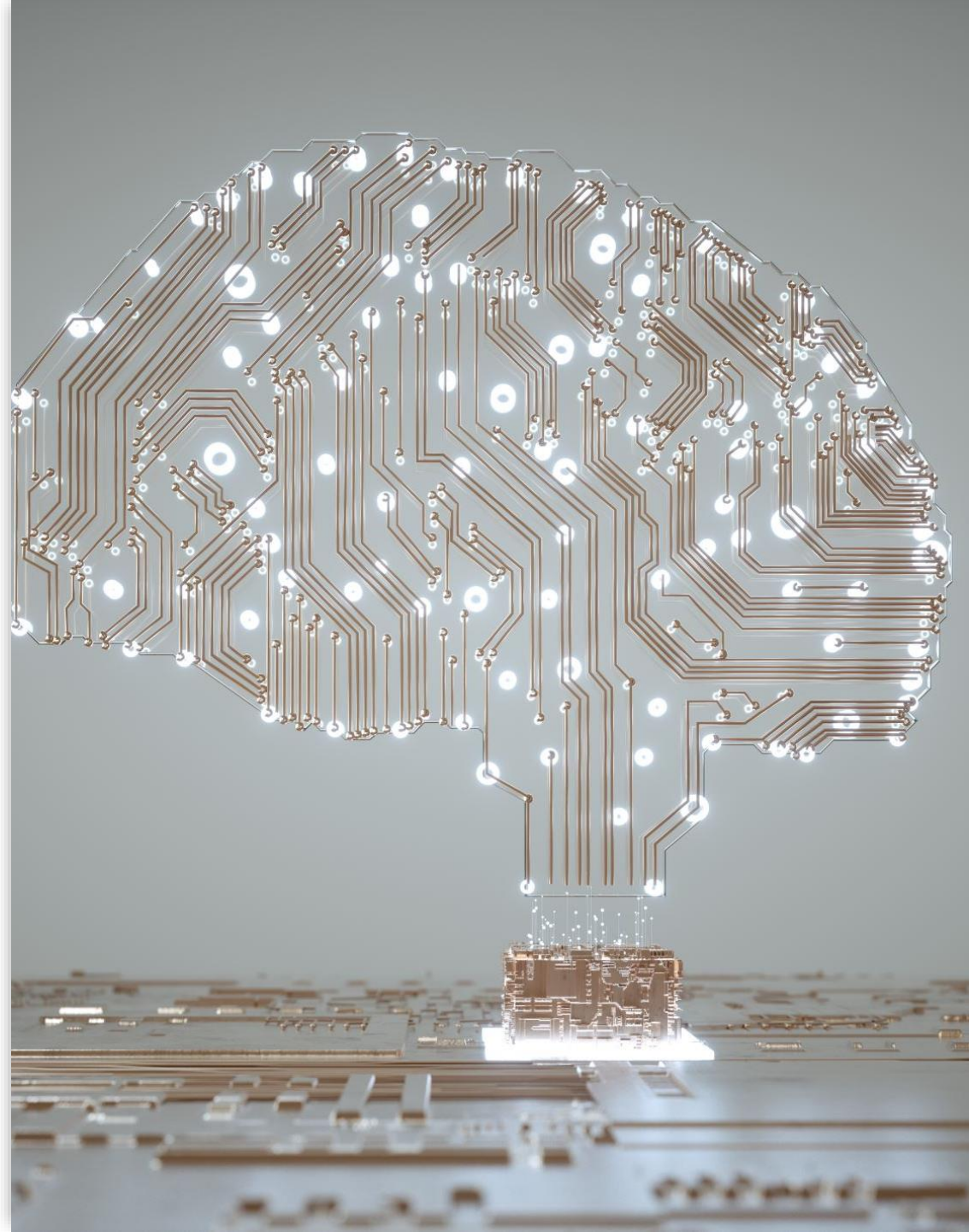
The Changing Business Environment (BMBM4010)

Week 7

Chris Rogers

Introduction to AI

- Definition and core concepts of Artificial Intelligence.
- Narrow AI (designed for specific tasks)
- General AI (capable of understanding and learning any intellectual task).
- AI technologies in use today
- Potential and limitations of AI from a current technological standpoint.



Historical Context

- Early experiments and theories in AI development.
- Key milestones: From Turing Test to modern neural networks.
- Evolution of machine learning and deep learning technologies.
- Impact of AI breakthroughs on academic and industrial research.





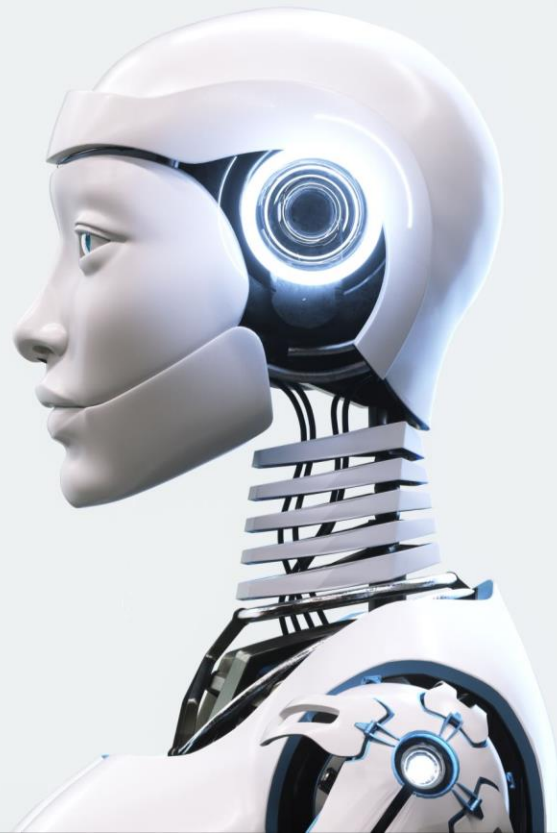
AI in Today's Business World

- The growing role of AI in transforming industries and creating new business models.
- AI adoption rates across different sectors
- Examples of increased efficiency and innovation due to AI integration.
- The economic impact of AI: job creation vs. displacement concerns.

AI in Healthcare

- AI applications in diagnostics, including image analysis and patient data interpretation.
- Use of AI in personalized medicine and treatment planning.
- AI-driven operational improvements in healthcare facilities.
- Ethical considerations and patient privacy in AI healthcare applications.





AI in Customer Service

- Implementation of AI chatbots for 24/7 customer support.
- Use of AI for personalized customer experiences and product recommendations.
- Integration of AI in CRM systems for deeper customer insights.
- Challenges and considerations in deploying AI customer service solutions.

Challenges and Considerations in Deploying AI Customer Service Solutions

- Balancing Automation and the Human Touch
- Addressing Privacy Concerns and Data Security
- Overcoming limitations of AI and Ensuring Accuracy
- Ethical Considerations in AI Deployment

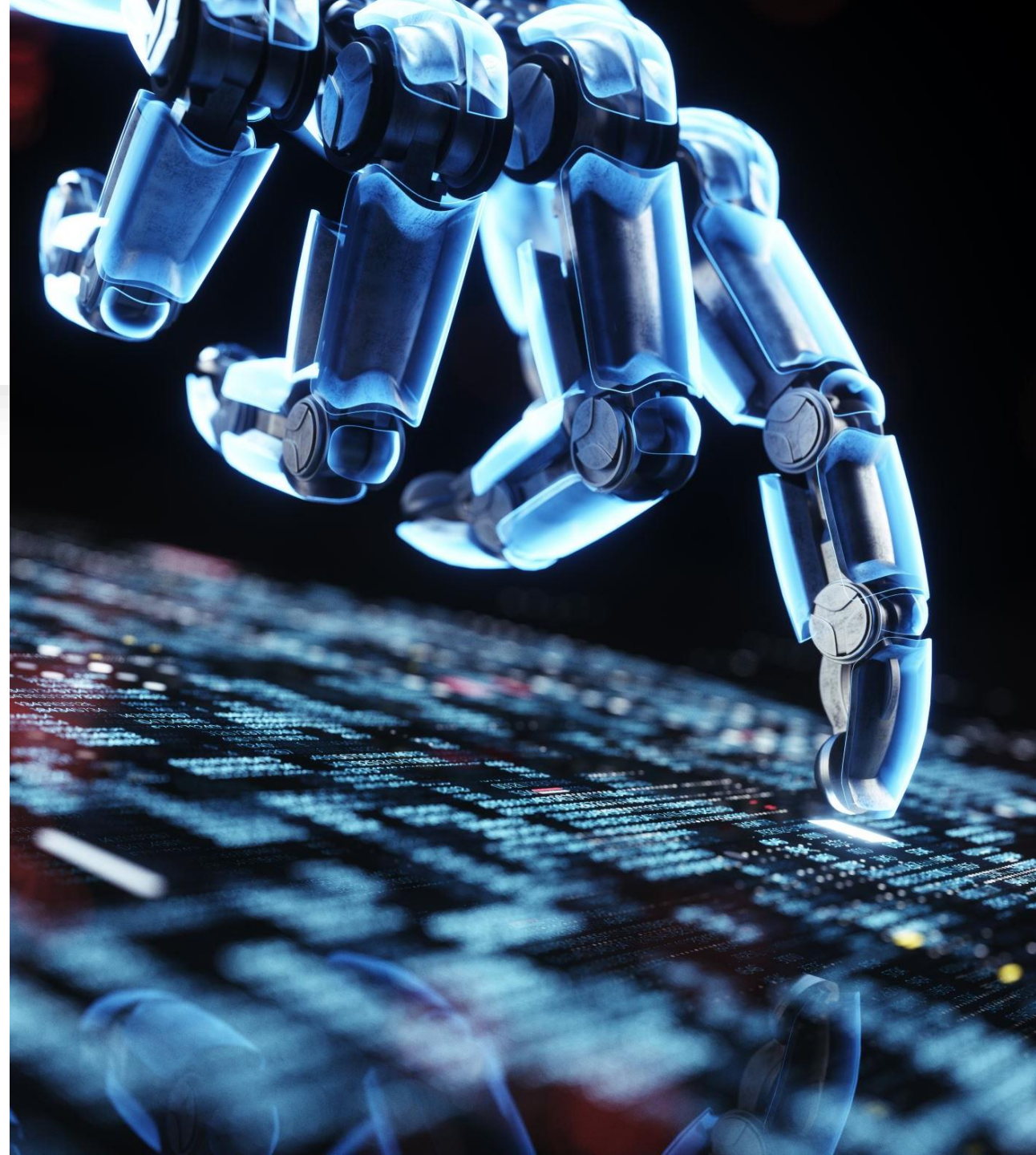
AI in Finance

- Enhancing Fraud Detection Systems and Security Measures
- Revolutionizing Algorithmic Trading and Portfolio Management
- Automating Personal Finance with AI-driven Tools
- Navigating Regulatory and Ethical Challenges



AI for Efficiency and Automation

- Streamlining Business Operations with Robotic Process Automation (RPA)
- Optimizing Supply Chain Management with Predictive Analytics
- Enhancing Manufacturing with Predictive Maintenance and Quality Control
- Navigating Challenges in AI Implementation and Human Oversight



Misuse of AI

- Deepfakes and Media Manipulation
- Surveillance and Privacy Invasions
- AI in Spreading Misinformation and Manipulating Elections
- Ethical and Societal Implications



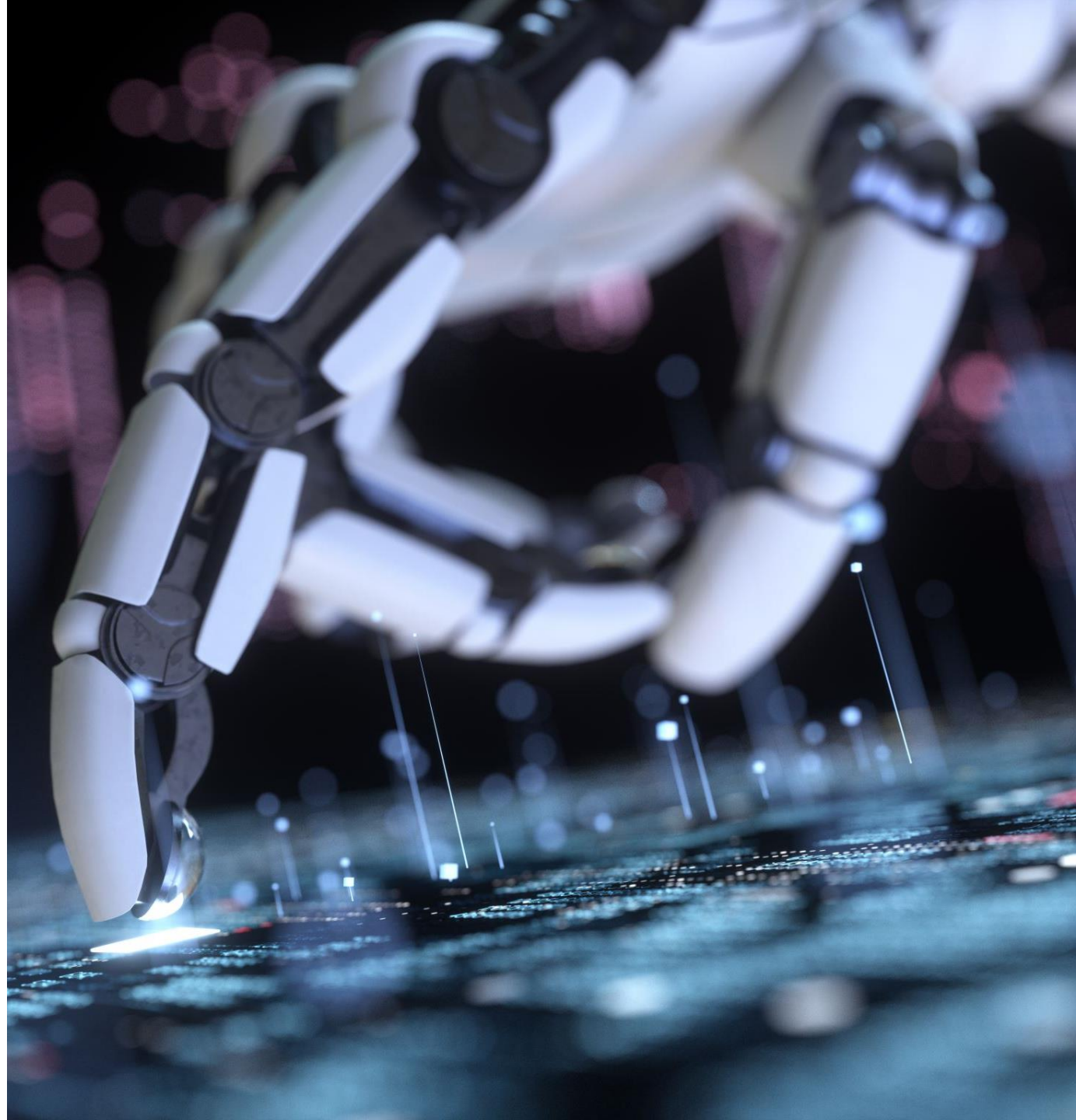


1984 – An AI World

- Surveillance State Parallel
- Manipulation of Information
- Thought Control and Public Opinion
- Ethical Imperatives and Safeguards

AI and Deepfakes

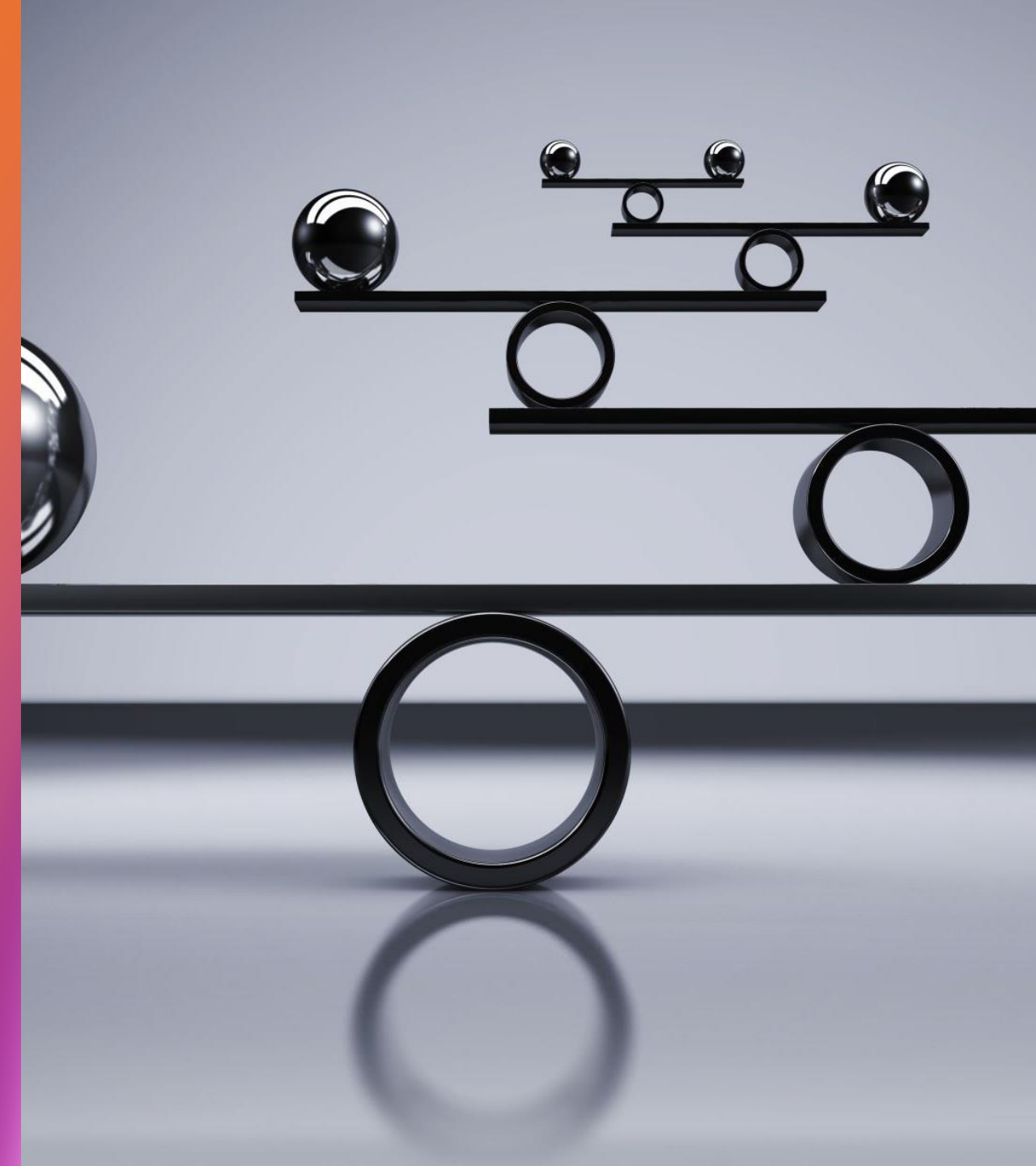
- Definition and technology behind deepfakes.
- High-profile deepfake incidents and their societal impact.
- The challenges of detecting deepfakes and the arms race in AI technologies.
- Legal and ethical considerations in the fight against deepfakes.





AI in Election Interference

- Overview of AI-driven misinformation campaigns.
- Case studies of AI's use in influencing voter behaviour.
- Detection and mitigation strategies for election interference.
- The role of policy and education in combating AI-driven misinformation.



Ethical considerations in AI

- Addressing Bias and Fairness in AI Algorithms
- Ensuring Transparency and Explainability
- Privacy and Data Protection
- Promoting Accountability and Responsibility

The Future of AI in Business

- Predictions for AI Advancements and Impact on Business Strategy
- Emerging AI Technologies and Potential New Applications
- Importance of AI Literacy and Skills Development in the Workforce
- Ethical and Societal Implications of Advanced AI Technologies



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AI in developing nations - Opportunities

- Economic Growth and Innovation
- **Diversification/Healthcare Access**
- Education and Skill Development
- **Personalized Learning/Skill Development**
- Infrastructure and Public Services
- **Smart Infrastructure/Agricultural Productivity**
- Crop monitoring and predictive analysis

AI in developing nations - Challenges

- Digital Divide
- **Access to Technology/Skills Gap**
- Economic Displacement
- **Job Displacement/Dependency on Developed Nations**
- Ethical and Societal Considerations
- **Bias and Fairness/Privacy and Surveillance**





Group Activity

- Explore the ethical implications of AI in business scenarios
- Think – Benefits, Ethical Considerations, Mitigation of Risk
- Each Group has 10 minutes on one of the following concepts...
- Implementing AI in Hiring Processes
- Using AI for Customer Data Analysis
- AI Driven Marketing Campaign

Thank You



NEXT LECTURE 19TH MARCH
1:30



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