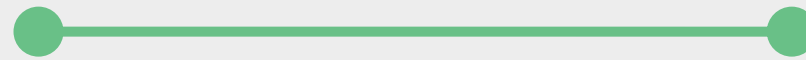


# AI & the Impact on Audit

## The Empowered Auditor

Dr Alex Antic – Two Twigs: Data Science Consulting, Advisory & Training  
*Adjunct Professor – RMIT University, UTS & UNSW Canberra*  
*Executive Board Member – Global AI Ethics Institute*

# AI?



Can perform tasks that typically require human intelligence

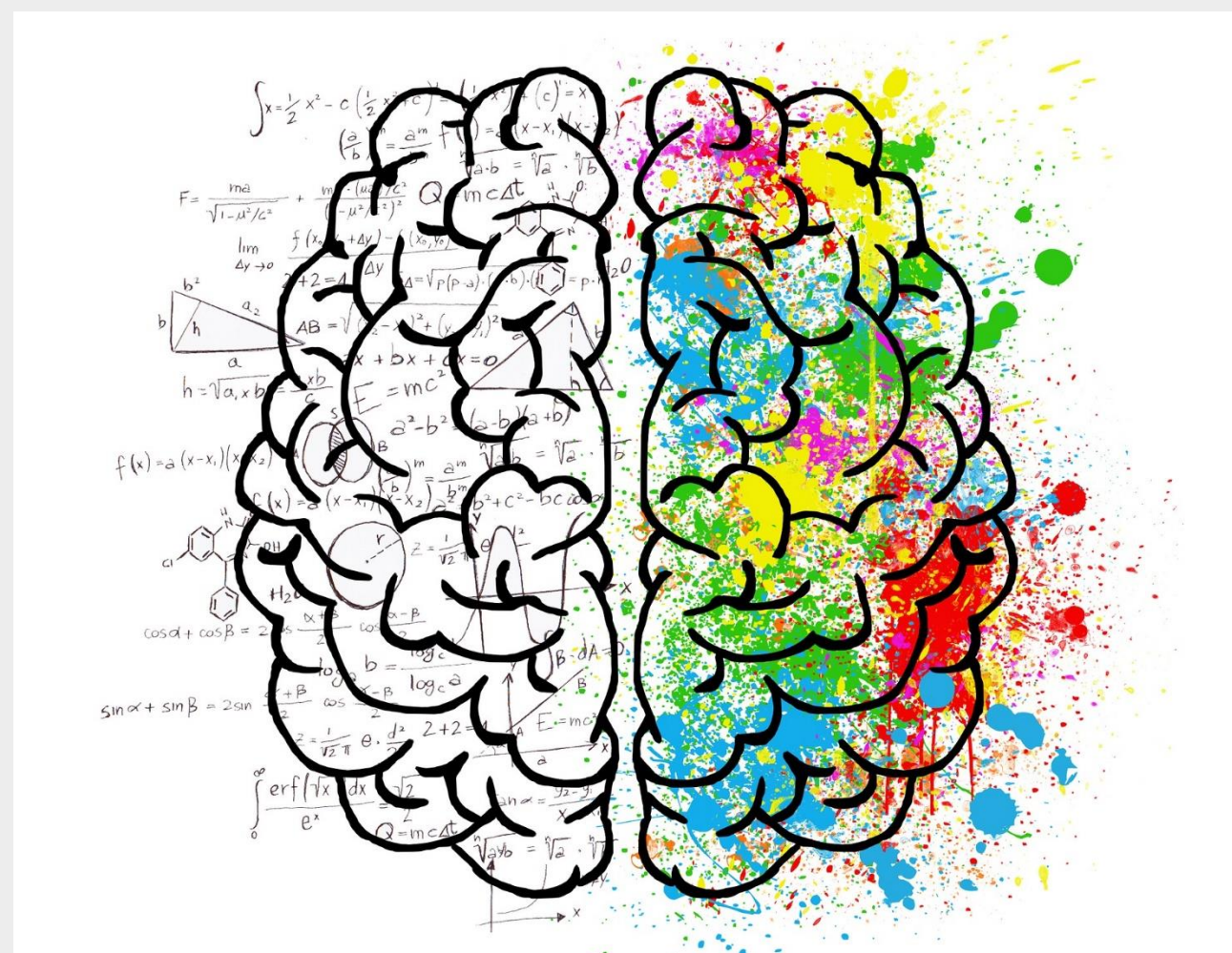
Data + ML Algorithms + Compute

Development of AI = Data Science

# Artificially Intelligent

Excels at pattern  
recognition

Impressive  
performance e.g.  
Natural Language  
Processing & Computer  
Vision



Generalises poorly

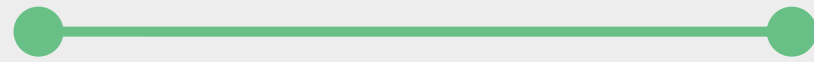
Lacks critical thinking,  
reasoning, creativity &  
abstraction

# The Impact on Audit



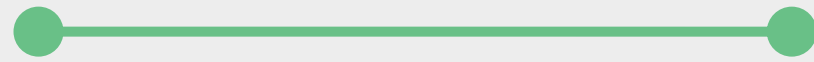
1. Use of AI
2. Auditing AI

# Use of AI



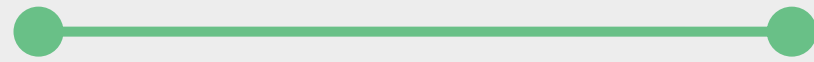
May remove the need for audit sampling

# Use of AI



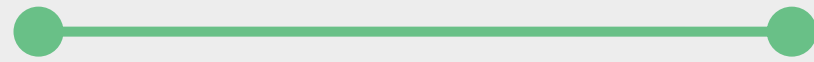
Improved risk profiling, and anomaly & fraud detection

# Use of AI



Real-time and continuous assurance & risk analysis

# Use of AI



Automation of repeatable & mundane manual tasks



# Use of AI



Increased scale & speed of data analysis

- Including unstructured data (text, video, audio)

# Auditing AI



Evolving and complex technology

- Moves faster than regulation and standards
  - How do you, as an auditor, keep up and remain relevant?

# Auditing AI



## Ethical and Legal challenges & Risks in the use of AI

- Transparency & Explainability of decisions
- Bias and Fairness → perpetuate discrimination
- Privacy implications of data capture and usage

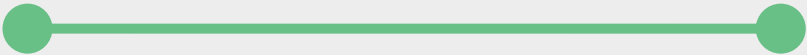
# Auditing AI



## Other Risks & Considerations:

- Data: quality, suitability, representativeness, bias, ...
  - Implementation Traceability – can have significant impact from an auditing perspective
  - Testing, Monitoring, Re-Training
  - Governance
  - Materiality & Impact → Human-in-the-Loop?
-

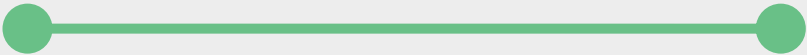
# The Technology



AI: Do you understand all the fundamental concepts?

- Training, Testing & Validating models
- Structured vs Unstructured data
- Supervised vs Unsupervised learning
- Development → Production
- Roles & Responsibilities

# The Technology



Current & Emerging Technology: Which apply to your work?

- Machine Learning (ML)
- Natural Language Processing (NLP)
- Generative AI e.g. ChatGPT
- Robotic Process Automation (RPA)
- Graph/Network Analysis
- Privacy Enhancing Technologies (PETs)

# The People



Cross-disciplinary expertise needed: Do you have the right team?

- Data Science, Data Architecture, Data Engineering, ...
  - A specific set of complimentary technical skills is needed to develop a successful, sustainable, and scalable Data Science capability

# The People



## The War on Talent

- Are you **hiring** Data Scientists or **borrowing** them?
  - Specific skills and considerations are needed to attract and retain key staff, and to make the most of the valuable contributions they can make



# The Ethics



Ethical & Responsible AI is ultimately about Trust!

- **Data:** Biased? Representative? Fit-for-Purpose?
- **Models:** Are they fair? Explainable?
- **Diversity:** Is there cultural & cognitive diversity?

# The Opportunities



Can you increase efficiencies, quality & effectiveness, reduce costs, or measure compliance?

- Is there a better/easier/cheaper/faster way with AI?

# The Opportunities



Identify AI & Data Science leaders in your organisation, industry & the field

- Learn from them
- Partner with them

# The Opportunities



Influence standardisation and auditing requirements  
e.g. GovERP

# The Existential Threat



It's not AI that will steal your job.

It's another Auditor who's using it to be better, faster or cheaper!

# The Future Auditor



Reviewer → Interpreter/Translator

# The Educated Auditor



Evolving Technology = Continual Learning

- Ensure you're Data Literate!
  - Training e.g. *AI for Finance, Accounting & Auditing* course on Udemy – offers broad and high-level overview
    - Bespoke training tailored to your organization, domain, and existing skills, is often needed to compliment other courses, and provide immediate benefit
-

# The Empowered Auditor



Follow AI & Data Science leaders, influencers, and authors on LinkedIn

Find a mentor

Grow your network



# The Empowered Organisation



How is your organisation/clients using AI?

How could/should they be using it?

→ Influence change!

# The AI-Ready Organisation



Ensure AI is integrated into your data, tech, and business strategies

Do you have the right expertise internally?

→ Seek external expertise and advice when needed!

# Thank You.

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