

Exploring the risk and opportunity of data democratisation and Generative AI

Rachel Fojtik – Principal HR Data Governance

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Impact of generative AI on democracy



Picture AI Generated by Eliot Higgins and distributed via Twitter



Picture AI Generated by Eliot Higgins and distributed via Twitter

AI Bias
creates
more Bias



Challenges to democracy



AI driven propaganda to polarise society



AI used to create mass influence on elections



The illusion of consensus by AI generated actions on social media



AI-driven decisions that create bias and strengthen existing bias

ABOUT 290,000 results

AI could affect democracy in the following ways ¹ ² :


- AI could give governments unprecedented surveillance power over citizens.
- AI could exacerbate mis/disinformation and deepfakes, while simultaneously improving tools that to combat such synthetic media.
- AI could undermine democratic values by perpetuating and amplifying social inequalities.
- AI could transform societal or political practices in a manner that directly affects the conduct of democracy in the public sphere, with regard to elections, and in the administration of public services ² .

Learn more:

¹ The Good, the Bad and the Algorithmic: What i...

 oecd-forum.org

² Artificial Intelligence: How It Impacts Democr...

 us.boell.org



Screenshot from Bings AI Generated response to question on 10 Feb 2024 :
What could be the impact on democracy of AI?

What is data democratisation?

Collibra

Collibra says “Plainly put, the ‘data’ in data democratisation is any information you could potentially gather about your business or organization. It’s for everyone: from the administrative assistant who’s planning a birthday party for a manager to the engineer who’s researching new potential product features. Data is ubiquitous and has the potential to streamline every corner of the business. It can be simple (your current customers’ email addresses) or complex (how many employees in the accounting department have completed a specific training module within the past two weeks)”

Informatica

Informatica says “Data democratisation makes data more available to everyone in an organization for technical and non-technical users alike. It involves providing universal access to authorized data consumers so they can leverage data for business purposes. By rethinking how you distribute and consume data, you can save time, uncover more insights and make better decisions.”

Dictionary

Definitions from [Oxford Languages](#) · [Learn more](#)

democracy

/diˈmɒkrəsi/

noun

noun: **democracy**

a system of government by the whole population or all the eligible members of a state, typically through elected representatives.

"a system of parliamentary democracy"

Similar: [representative government](#) [elective government](#) [constitutional government](#)

- a state governed under a system of democracy.

plural noun: **democracies**

"a multiparty democracy"

- control of an organization or group by the majority of its members.

"the intended extension of industrial democracy"

- the practice or principles of social equality.

"demands for greater democracy"

Origin

GREEK

dēmos
the
people

GREEK

-kratia
power,
rule

GREEK

dēmokratia

LATE LATIN

dēmokratia

FRENCH

démocratie

democracy

late 15th century

late 15th century: from French *démocratie*, via late Latin from Greek *dēmokratia*, from *dēmos* 'the people' + *-kratia* 'power, rule'.

Use over time for: democracy



Screenshot from Google response to question on 10 Feb 2024 :
What is the definition of democracy?

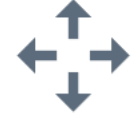
What makes a democracy successful?

Museum of Australian Democracy says:

1

Always evolving

As the needs of people change and the movement of views, technology and science changes so too does democracy to expand to enable all of the below to be upheld



2

Legitimacy

Its government has a valid mandate earned through frequent elections, assured by independent institutions and demonstrated by a free society.



3

Justice and equality

All citizens are treated with equality, dignity and respect by society and its institutions.



4

Free will within the bounds of laws

Citizens can make, learn from and be held to their own decisions, within the bounds of laws, for the common good.



5

Power

Parliament, governance and justice are separated into independent institutions, with a constitution providing checks and balances on their powers.



Data and open-source generative AI



ChatGPT

"AI without data is like a comedian without jokes – it's just a machine standing on stage, hoping for laughter but delivering nothing more than awkward silences. Without data, it's the artificial intelligence of cringe-worthy moments."



Source: Screenshot Chat GPT 3.5 10 Feb 24 – Question asked: Give me a funny answer to why Data is important for AI

Garbage in, garbage out

- Training data
- Learning patterns and transfer learning
- Text and language generation
- Image and video
- Data augmentation
- Creative content generation
- Continuous learning

- Incorrect
- Biased (added and removed content)
- Limited
- Inbred

The way that a question is phrased to an open AI model influences output

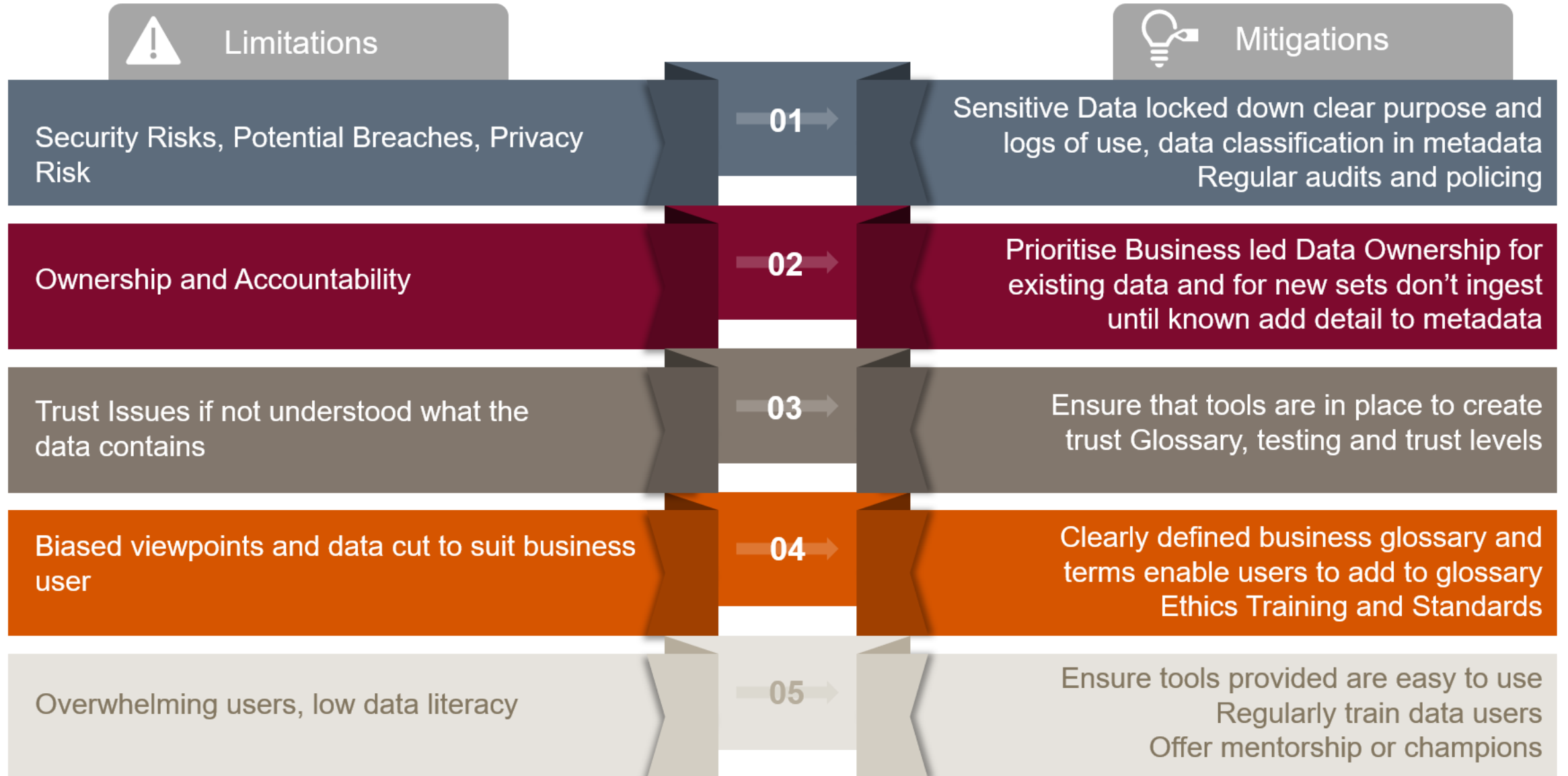
Bias of model, of training data and of question

Challenges of no data democratisation

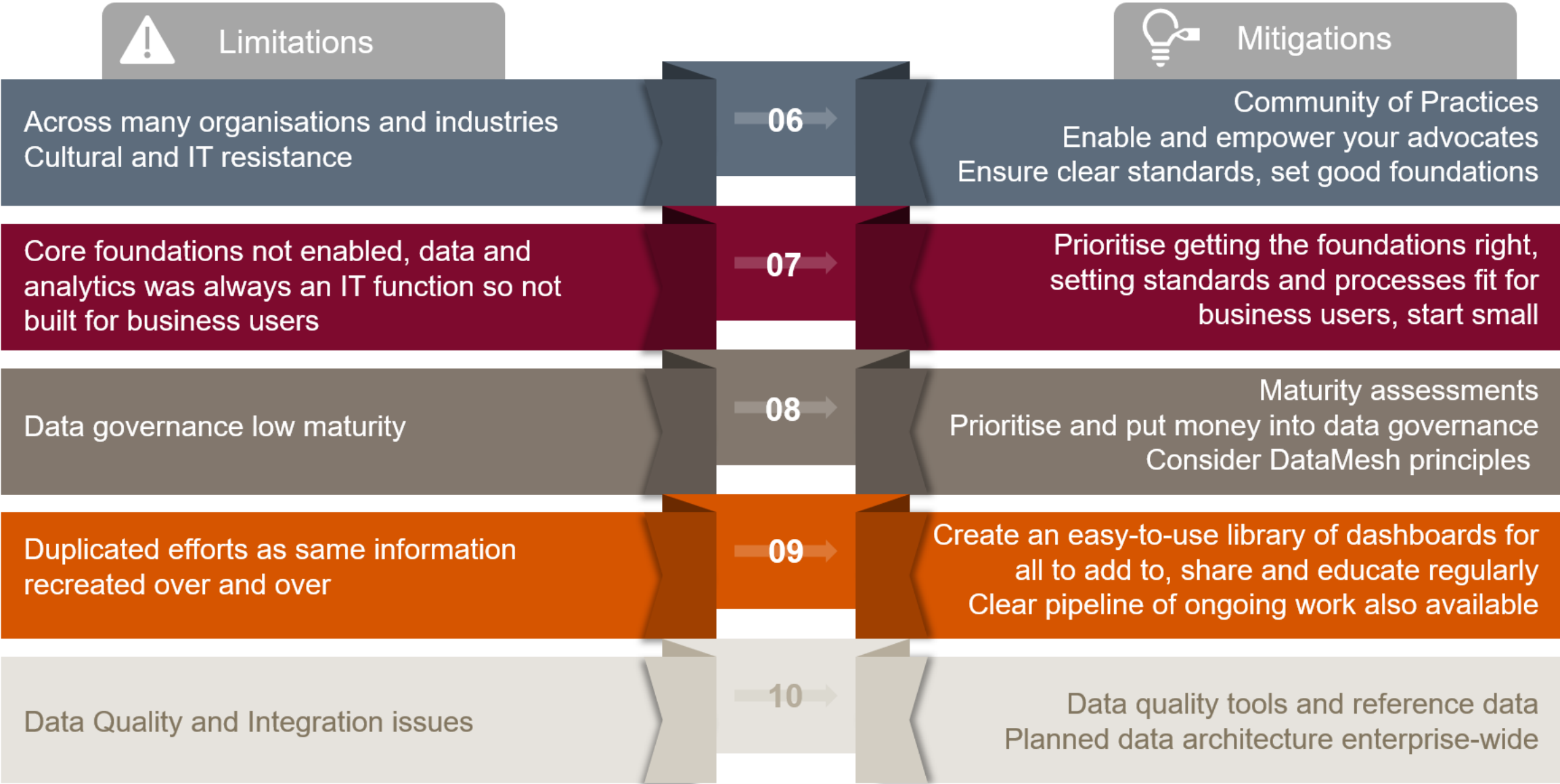
Centralised data services



Review of current limitations and mitigations of Data Democratisation



Review of current limitations and mitigations of Data Democratisation



Foundations for democratisation with AI

Capability

- Ethical guidance and awareness programs
- Data and business literacy maturity and growth plan
- Federated data governance program
- Mechanism for continuous improvement
- Education programs and Community of Practices



Culture

- Purposeful culture of learning and collaboration
- IT and business collaborative culture
- Ethically aware
- Data champions throughout all business domains
- Senior leadership engagement



Trust

- Data quality tools and processes in place
- Assure relevance with clear definitions – Business glossary
- Transparent algorithms
- Non-Biased data sets i.e. training data for LLMs



Security

- Security and governance frameworks
- Privacy guidelines are clear and built in
- Encryption, masking, anonymisation and Pseudonymisation
- Data is accessible with all security seamlessly applied
- Automated role-based permissions



Enablement

- Easy-to-use tools and feedback systems
- Interconnected business glossary with data catalogue and data
- Assets with easy-to-use interface
- Development Process and practice documented and with tools



Architecture

- Data management and data architecture principles
- Data Catalogue
- Enterprise-wide data architecture framework - business domain
- Documentation - access and awareness
- Data observability tools



Can Gen AI assist with democratisation of data?

AI Doesn't



Creativity and Innovation
Ethical thinking and connecting dots
Empathy and emotion
Leadership and Mentorship
Collective Intelligence

AI Does



Capability & culture

- Streamline data workflows, automate approvals and checkpoints
- Automate the creation of visualisations and answer questions for quicker decisions
- Identify bias in outcomes from AI models
- Language translation



Trust & security

- Automate pseudonymisation and anonymisation based on profiles
- Automate data profiling and data quality audits
- Cataloguing data and identifying sensitive data
- Conducting audits and highlighting exceptions
- Enforce access rules



Enablement & architecture

- Identify and rectify data load or connectivity failures
- Automate connectivity between data sets and tools
- Coding software and setting meta data
- Documentation

References and further reading

- [What is Data Democratization? | Collibra](#)
- [What Is Data Democratization? | Informatica Australia](#)
- [Defining Democracy: What Is Democracy? - Explore MoAD \(moadoph.gov.au\)](#)
- <https://www.perplexity.ai/>
- [What is Data Democratization and Why is it Important? \(youtube.com\)](#)
- [10 Pros and Cons of Data Democratization #datademocratization \(youtube.com\)](#)
- [The Democratization of Data: The Pros & Cons of All That Data | Splunk](#)
- [Mitigating the Risks of Data Democratization - Database Trends and Applications \(dbta.com\)](#)
- [Data democratization through data mesh \(youtube.com\)](#)
- [AI And The Shadow Over Democracy: The Rising Threat To Global Elections \(forbes.com\)](#)
- [Defining Democracy: What Is Democracy? - Explore MoAD \(moadoph.gov.au\)](#)
- [Fake Trump arrest photos: How to spot an AI-generated image - BBC News](#)
- [News Corp using AI to produce 3,000 Australian local news stories a week | News Corporation | The Guardian](#)
- [Gartner Reprint](#)
- [AI and Data Democratisation for Intelligent Energy](#)
- [Microsoft future of work report](#)
- [18 Factors To Consider When Deciding About Data Democratization \(forbes.com\)](#)
- [ChatGPT \(openai.com\)](#)
- Do-Not-Answer: A Dataset for Evaluating Safeguards in LLMs Yuxia Wang^{1,2*} Haonan Li^{1,2*} Xudong Han^{1,2*} Preslav Nakov² Timothy Baldwin^{2,3}
¹LibrAI ²MBZUAI ³The University of Melbourne {yuxia.wang, haonan.li, xudong.han}@mbzuai.ac.ae
- [Model Prompting Guides | Prompt Engineering Guide](#)
- Weapons of Math Destruction
- <https://www.fastcompany.com/90965945/workers-are-worried-about-losing-their-jobs-to-ai-but-ai-cant-replace-these-key-workplace-skills>
- The Great Hack - Documentary On Netflix
- Coded Bias – Documentary on Netflix
- Navigating the Future: Emerging Trends in AI and Data Analytics – Elizabeth Wallace – 24 Jan 2024 - [Navigating the Future: Emerging Trends in AI and Data Analytics \(rtinsights.com\)](#)

RioTinto