Title: Ethics PROBES: Artificial Intelligence, Machine Learning, & Quantum Computing

Speakers: Joshua August Skorburg

Collection: Machine Learning for Quantum Many-Body Systems

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Ethics PROBES: Artificial Intelligence, Machine Learning, & Quantum Computing

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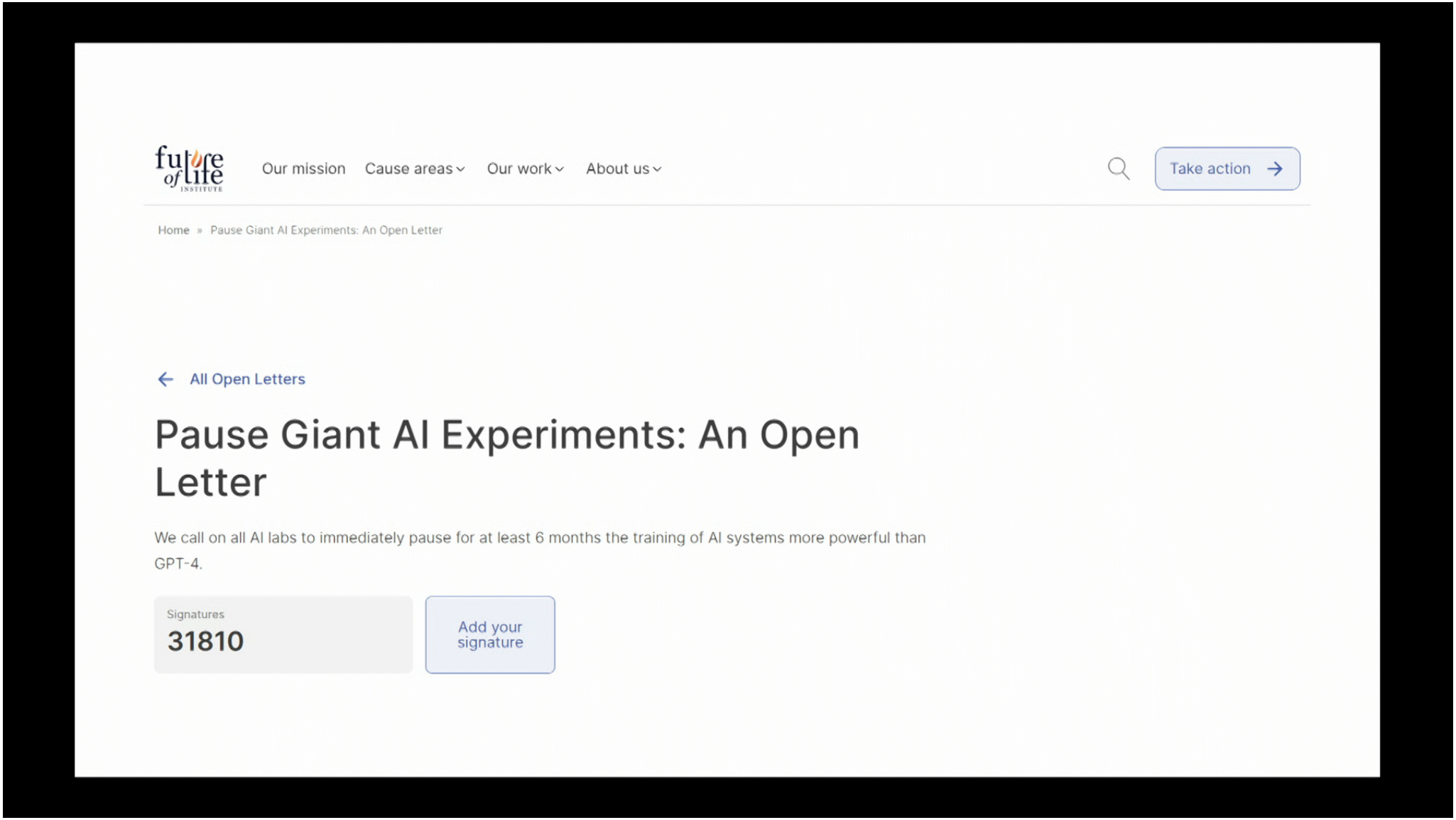
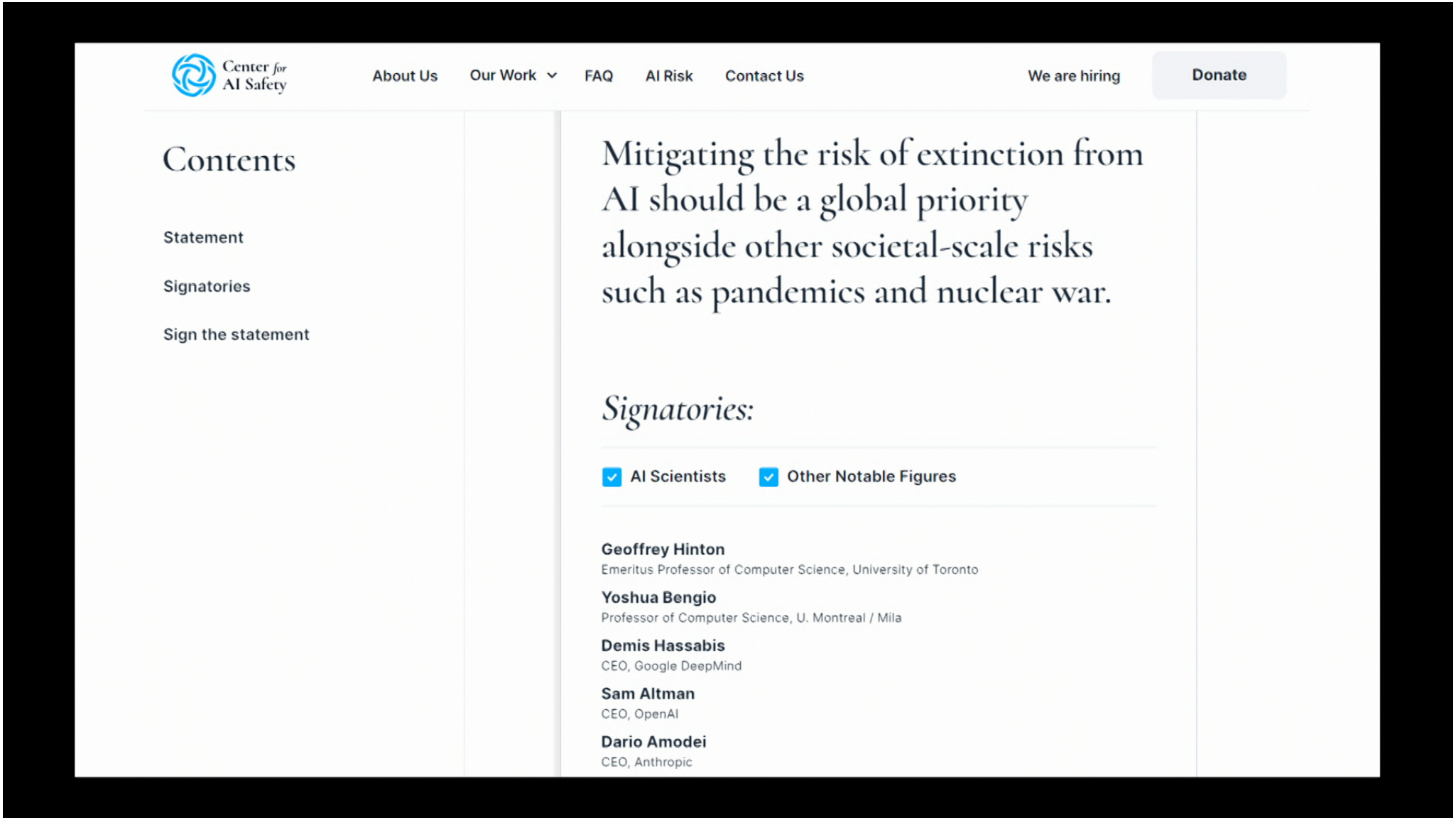

Our mission
Cause areas
Our work
About us
Take action
Home » Pause Giant AI Experiments: An Open Letter
All Open Letters
Pause Giant AI Experiments: An Open Letter
We call on all AI labs to immediately pause for at least 6 months the training of AI systems more powerful than GPT-4.
Signatures
31810
Add your signature


Center for AI Safety
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AI Risk
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We are hiring
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Contents
Statement
Signatories
Sign the statement
Mitigating the risk of extinction from AI should be a global priority alongside other societal-scale risks such as pandemics and nuclear war.
Signatories:
AI Scientists
Other Notable Figures
Geoffrey Hinton
Emeritus Professor of Computer Science, University of Toronto
Yoshua Bengio
Professor of Computer Science, U. Montreal / Mila
Demis Hassabis
CEO, Google DeepMind
Sam Altman
CEO, OpenAI
Dario Amodei
CEO, Anthropic

Taking a step back from X-Risk

Probing the Ethics of AI/ML

- **P**rivacy

Probing the Ethics of AI/ML

- **P**rivacy
- **R**esponsibility
- **O**pacity
- **B**ias
- **E**quity
- **S**ustainability

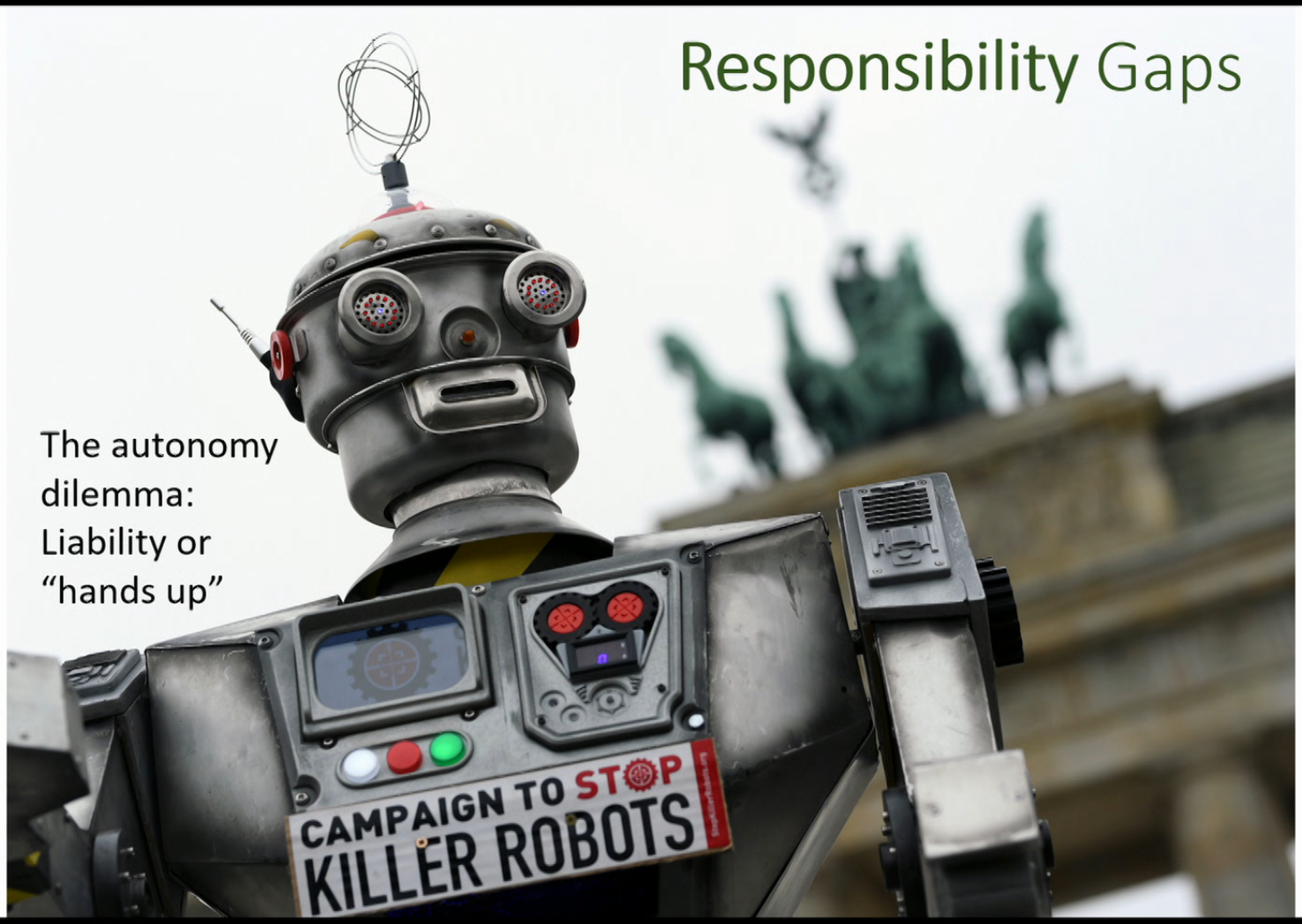
Training data, privacy and the
“nothing to hide” argument

Training data, **privacy** and the "nothing to hide" argument

Value, mother-in-laws, social roles

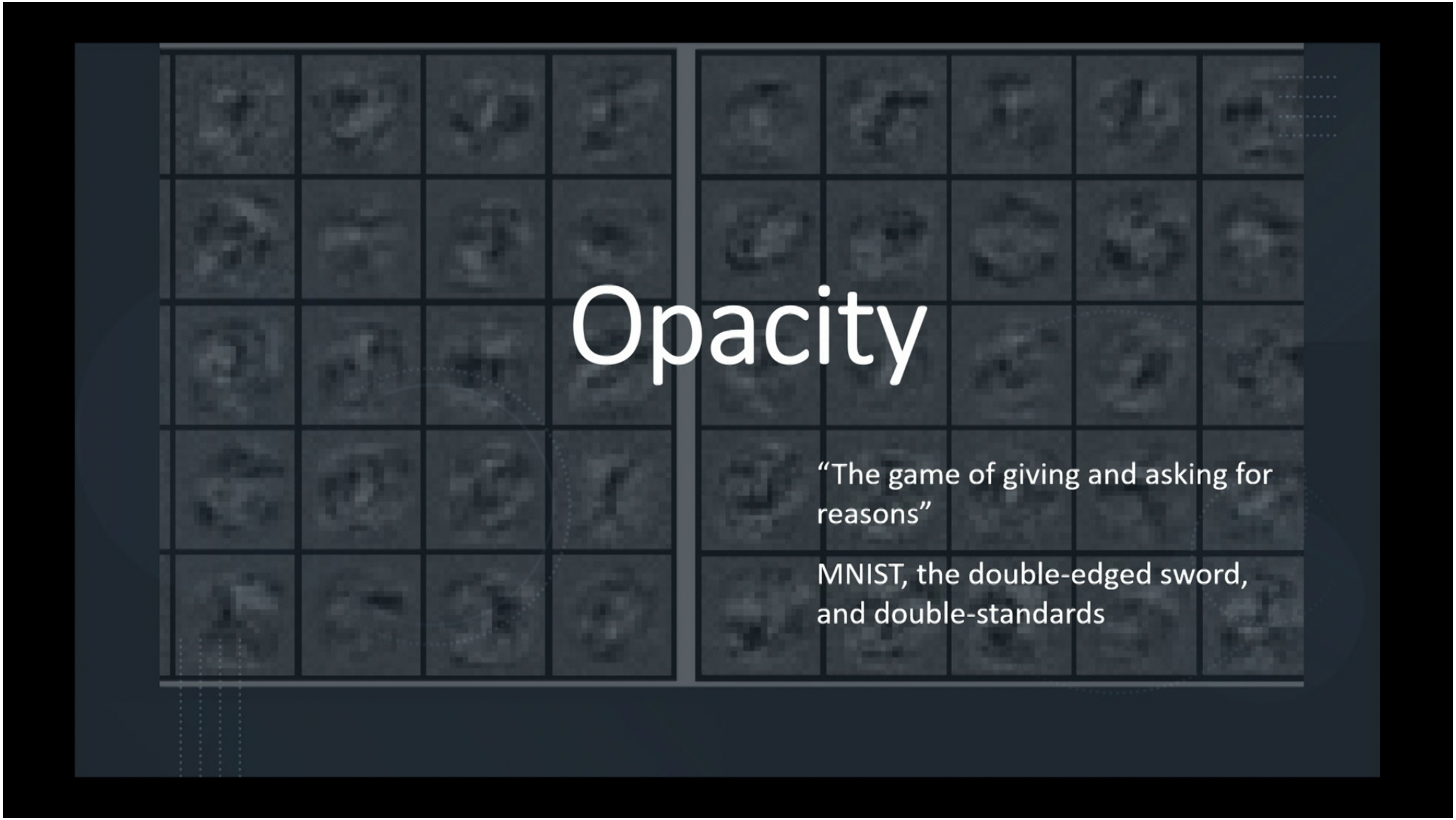
Responsibility Gaps
CAMPAIGN TO STOP
KILLER ROBOTS

Responsibility Gaps

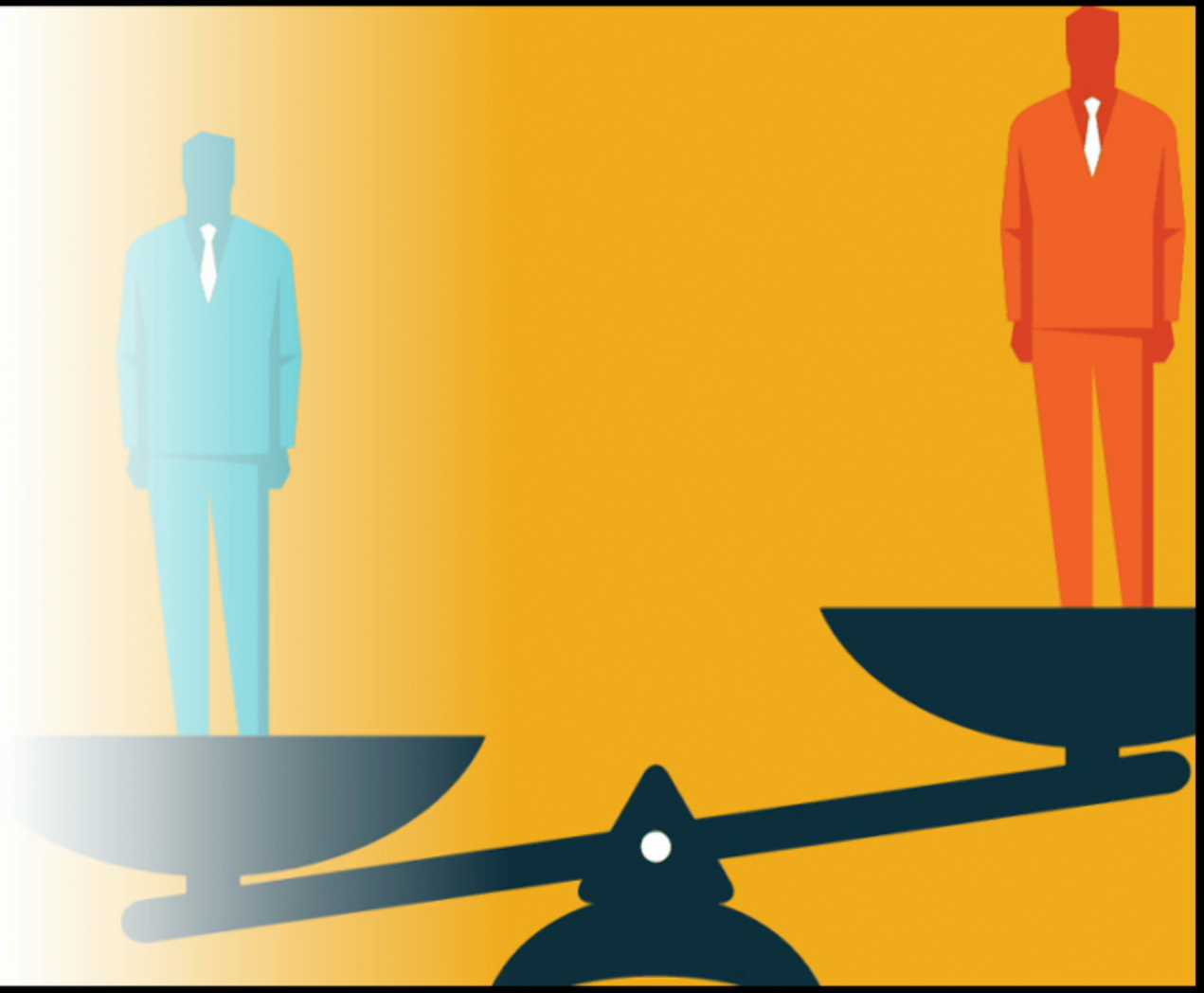


Opacity

Opacity
“The game of giving and asking for reasons”

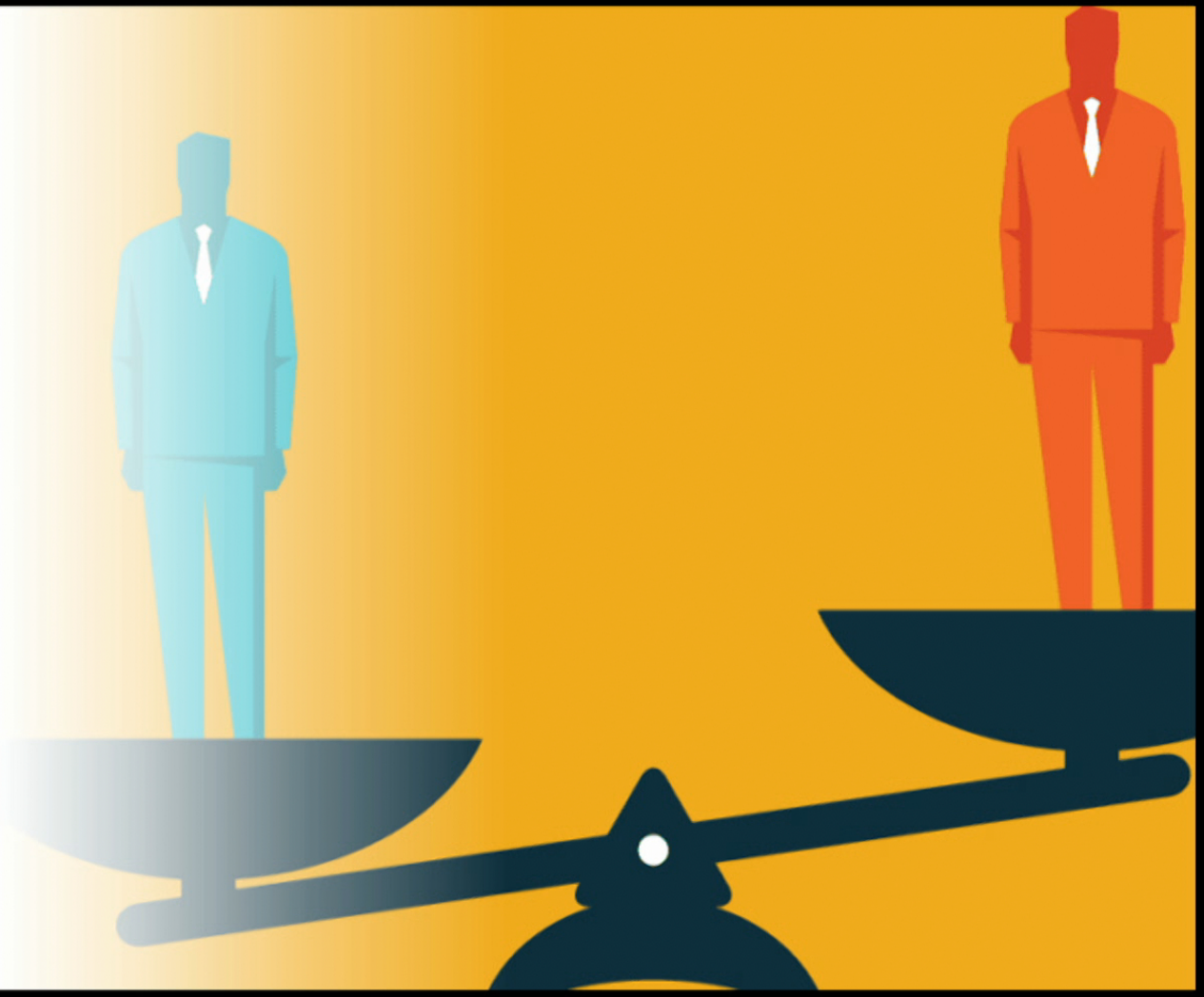

Opacity
“The game of giving and asking for reasons”
MNIST, the double-edged sword, and double-standards

Bias



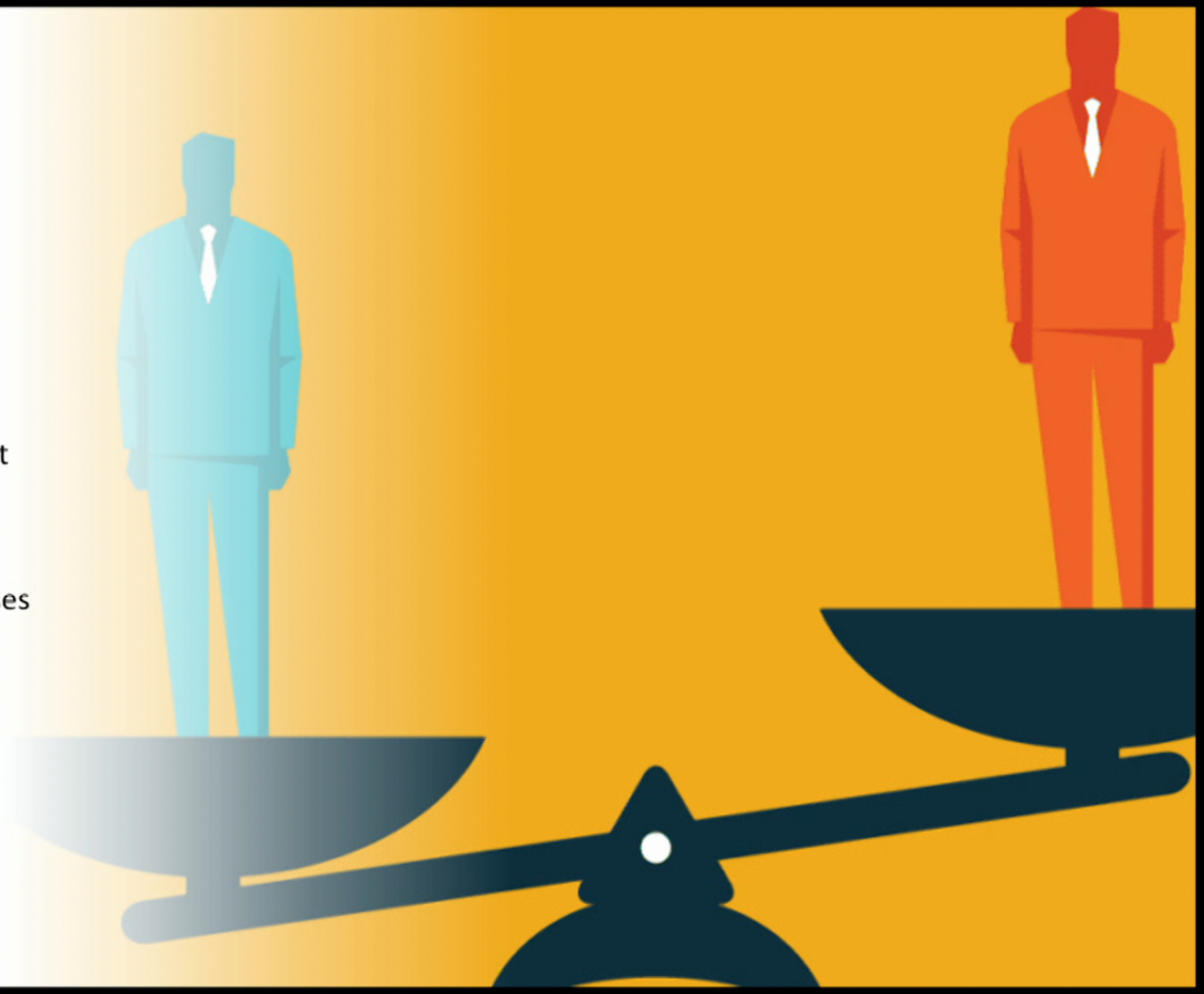
Bias

- Fazelpour & Danks (2021): Admissions



Bias

- Fazelpour & Danks (2021): Admissions
- **In problem specification**
  - Target variable: what is student success?
- In data
  - Systemic barriers, holding causes constant



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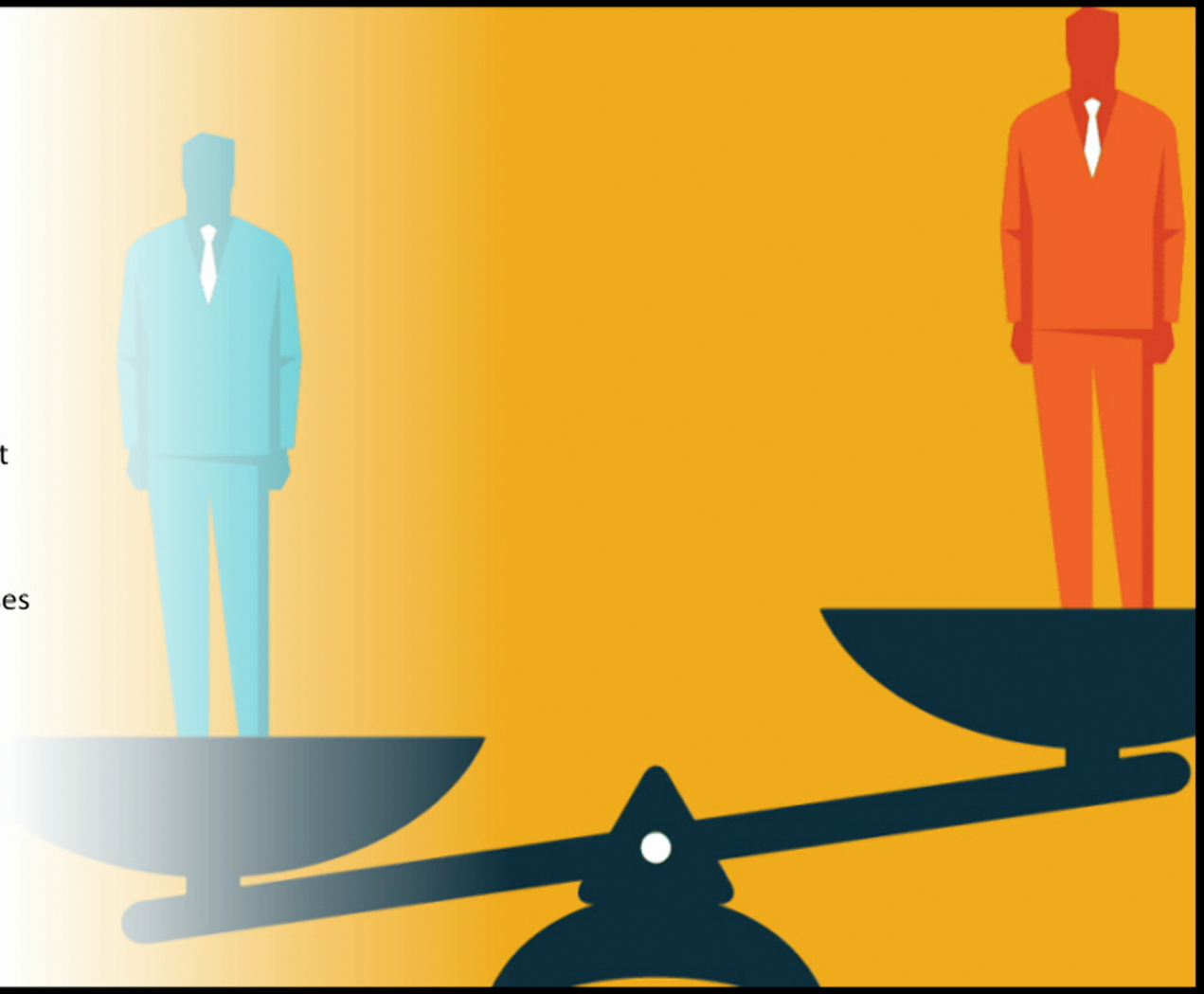

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- In modelling and validation
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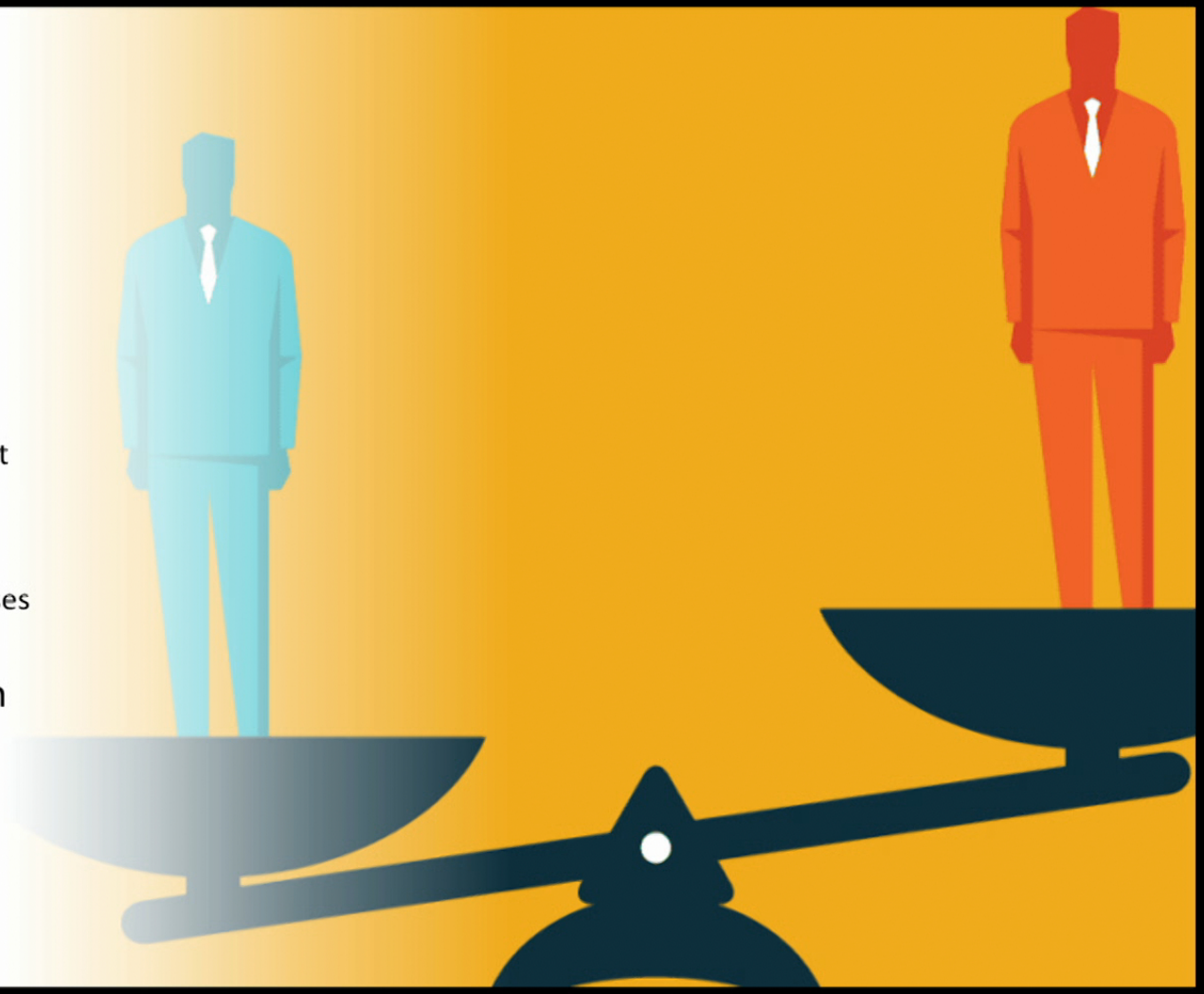
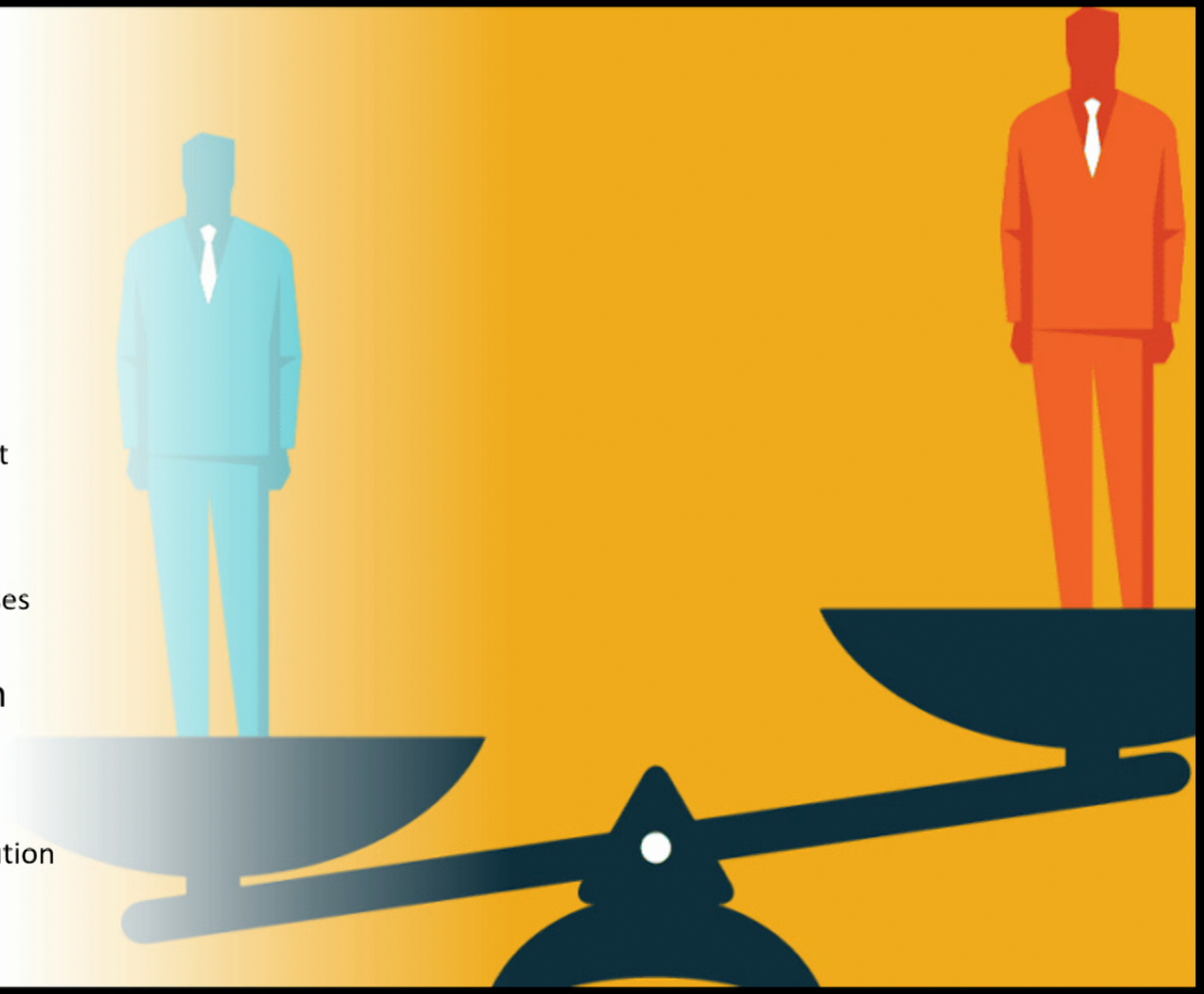
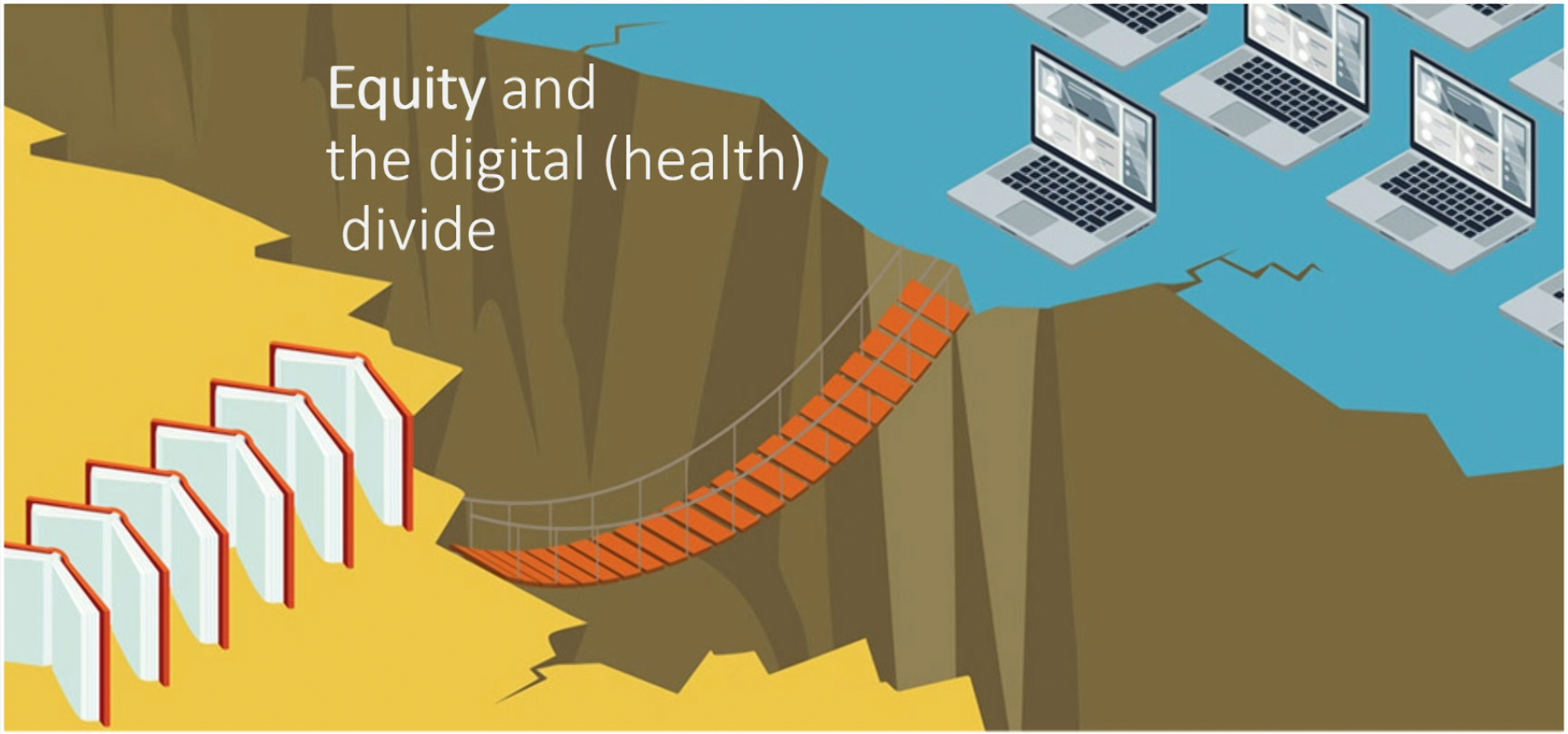


Bias

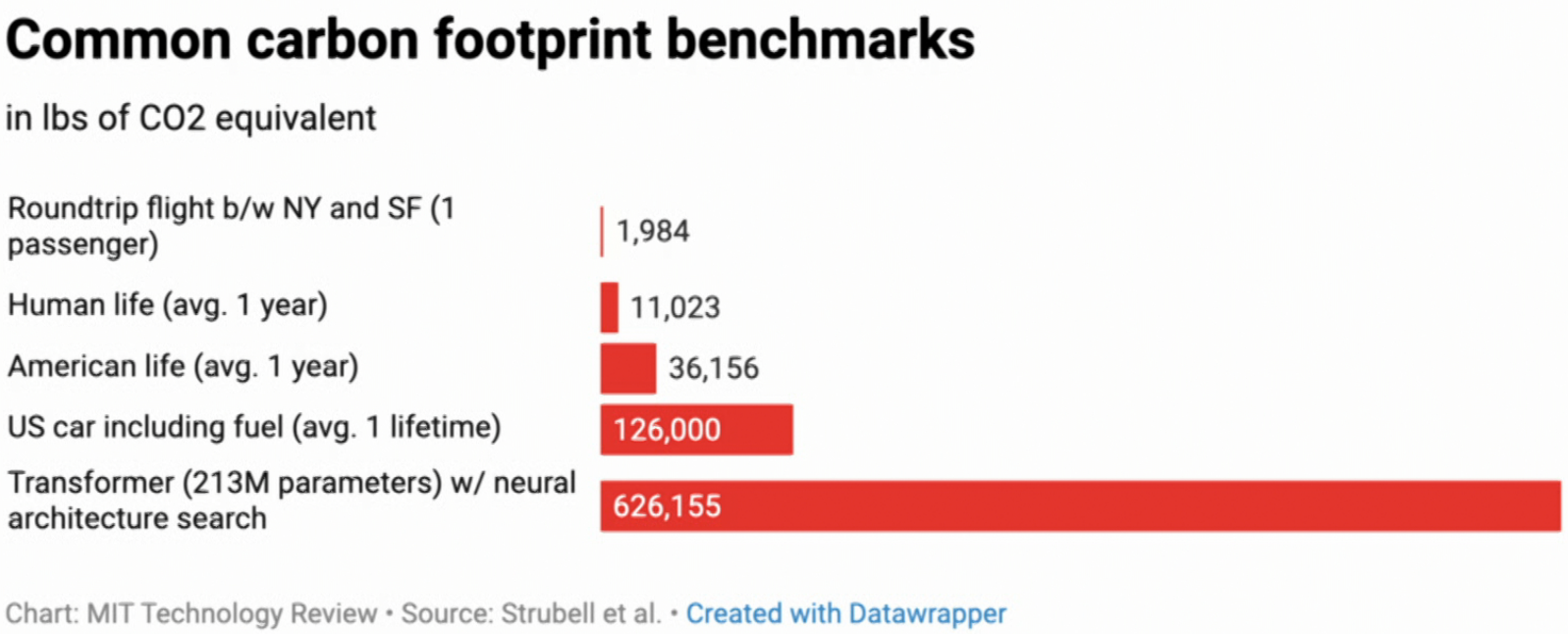
- Fazelpour & Danks (2021): Admissions
- **In problem specification**
  - Target variable: what is student success?
- In data
  - Systemic barriers, holding causes constant
- In modelling and validation
  - Error distribution
- **In deployment**
  - Feedback loops and data evolution




Equity and
the digital (health)
divide

Sustainability and the hidden environmental and human costs

Sustainability and the hidden environmental and human costs



Continuity?

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- Consider the rule “don’t harm innocents”
  - Stones vs firearms

Continuity?

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- Now consider broadcast vs targeted ads

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- Are credible applications of AI/ML/QC more like the former or the latter?

Continuity?

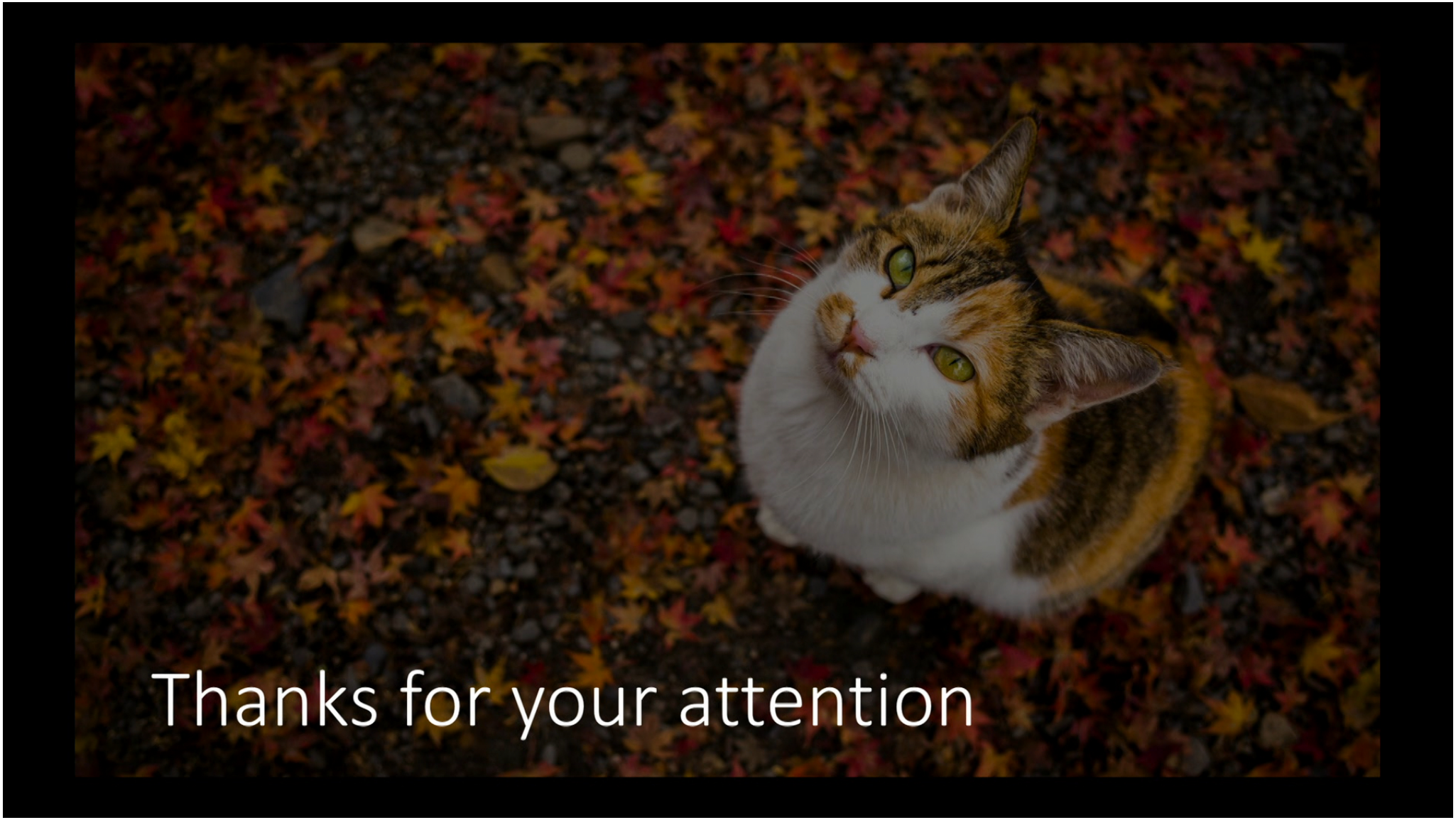
- Consider the rule “don’t harm innocents”
  - Stones vs firearms
- Now consider broadcast vs targeted ads
- Are credible applications of AI/ML/QC more like the former or the latter?
- If the latter, who regulates?

SENATOR,
WE RUN ADS

If not you, then who?

Quantum Applications?

- **P**rivacy
- **R**esponsibility
- **O**pacity
- **B**ias
- **E**quity
- **S**ustainability


Thanks for your attention