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WILL TECHNOLOGY BIAS HOW WE MAKE PEOPLE-DECISIONS?

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Who am I?

Dr Luke Treglown

Lead Statistician

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Global Psychology Team

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TODAY WE WILL TALK ABOUT...

1. **How is technology and data analytics helping?**
2. **Are these making us more bias?**
3. **How Psychology Can Help Combat Bias**

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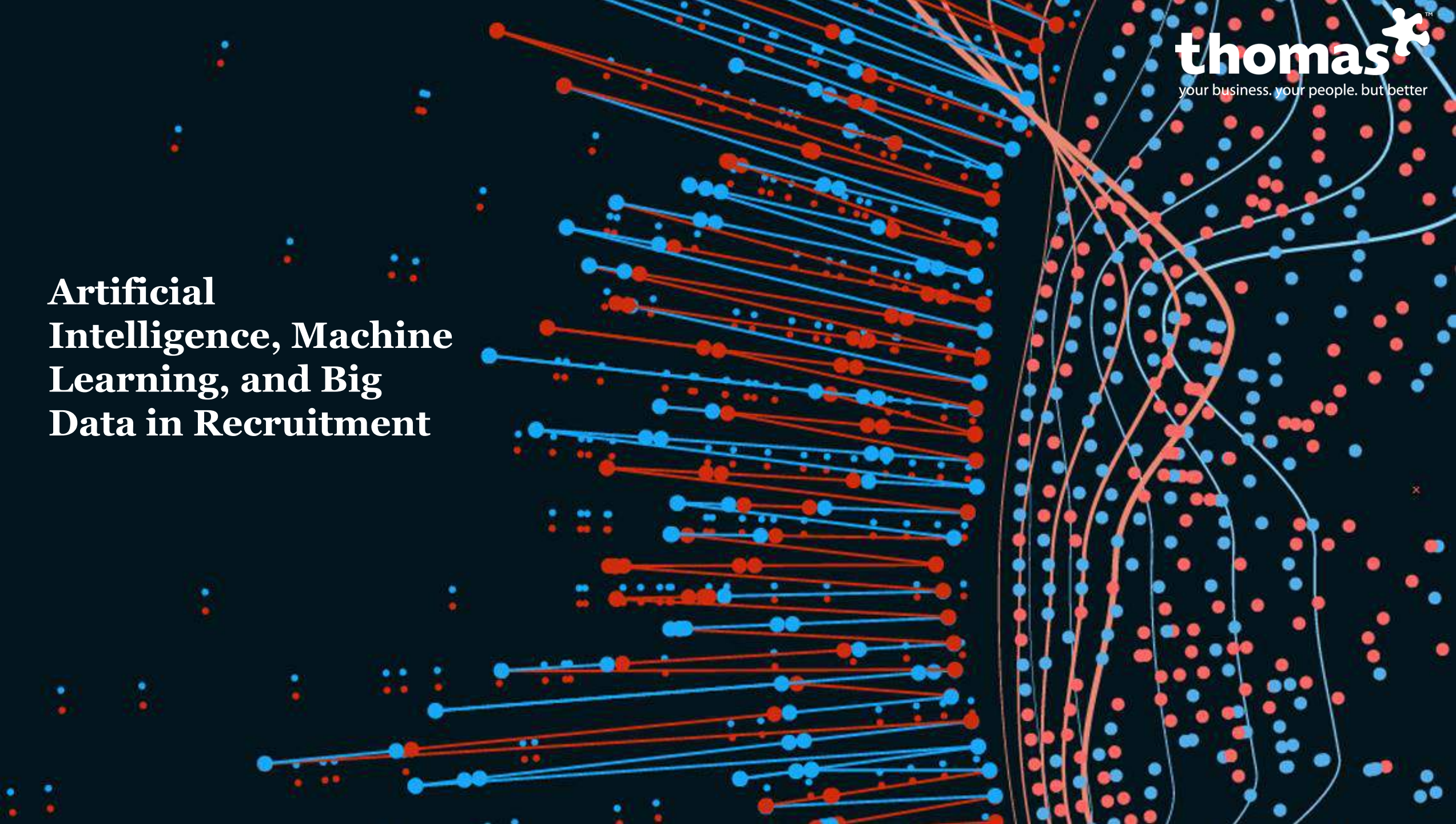

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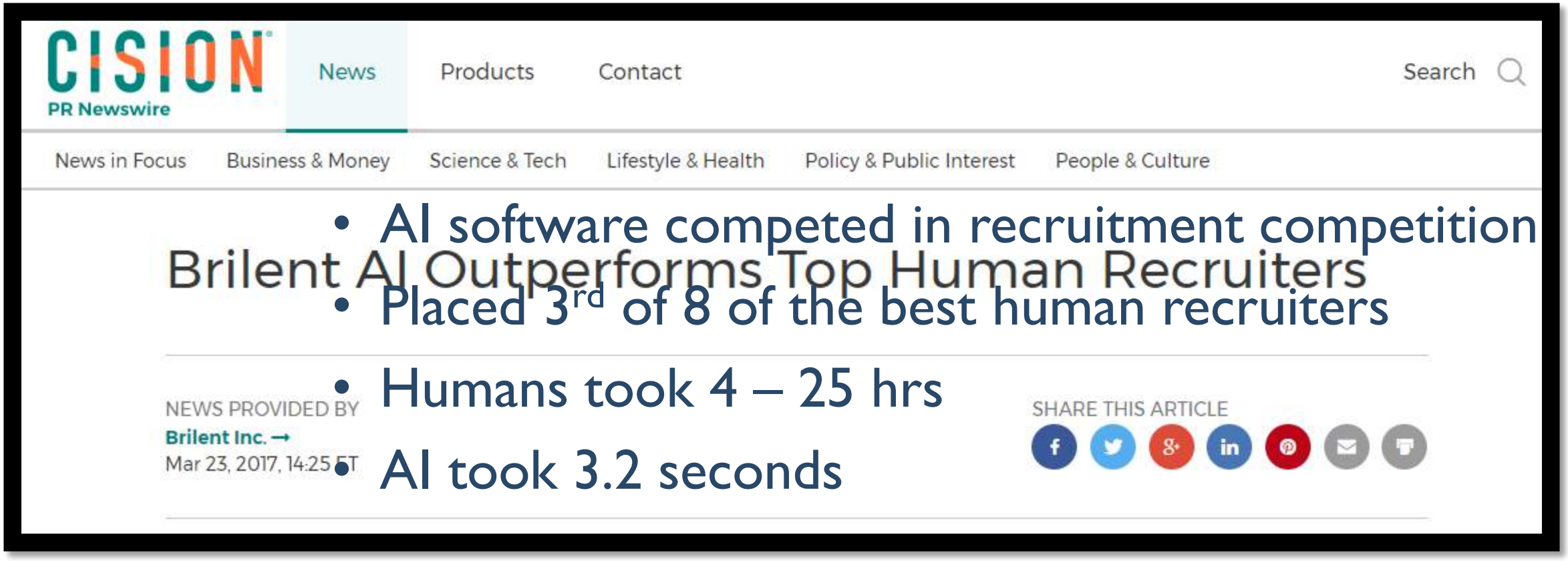
Artificial Intelligence, Machine Learning, and Big Data in Recruitment

Latest Research:

- Predicting Personality from Eye Movement
  - Neurotic people tended to blink faster;
  - Open-minded people had bigger side-to-side eye movements;
  - Conscientious people had greater fluctuations in their pupil size

- Identifying Liars
  - People are terrible at spotting liars
  - Machines can accurately detect lying with 76% accuracy (humans are no better than chance)



- AI software competed in recruitment competition
- Placed 3rd of 8 of the best human recruiters
- Humans took 4 – 25 hrs
- AI took 3.2 seconds

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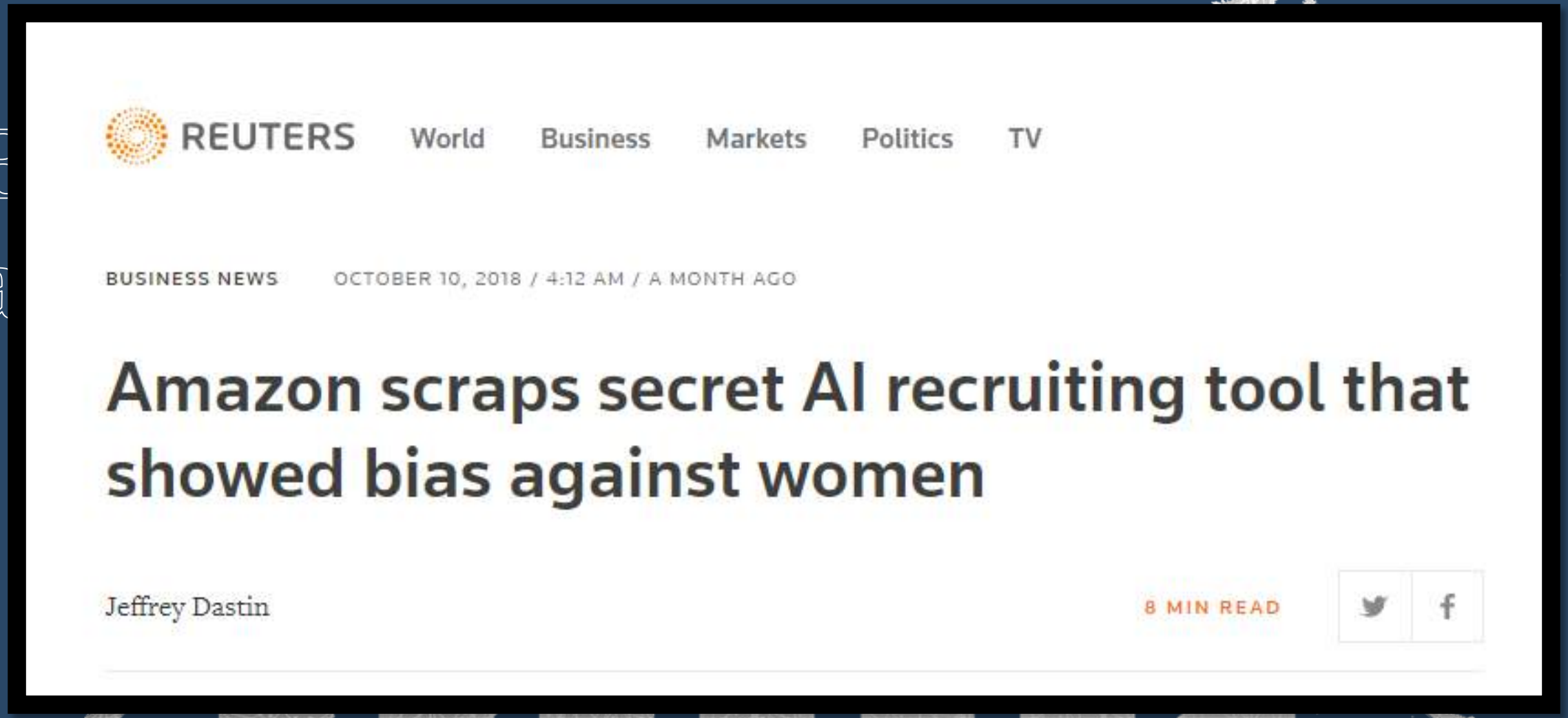

REUTERS World Business Markets Politics TV

BUSINESS NEWS OCTOBER 10, 2018 / 4:12 AM / A MONTH AGO

Amazon scraps secret AI recruiting tool that showed bias against women

Jeffrey Dastin

8 MIN READ

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AI has been shown to increase bias:

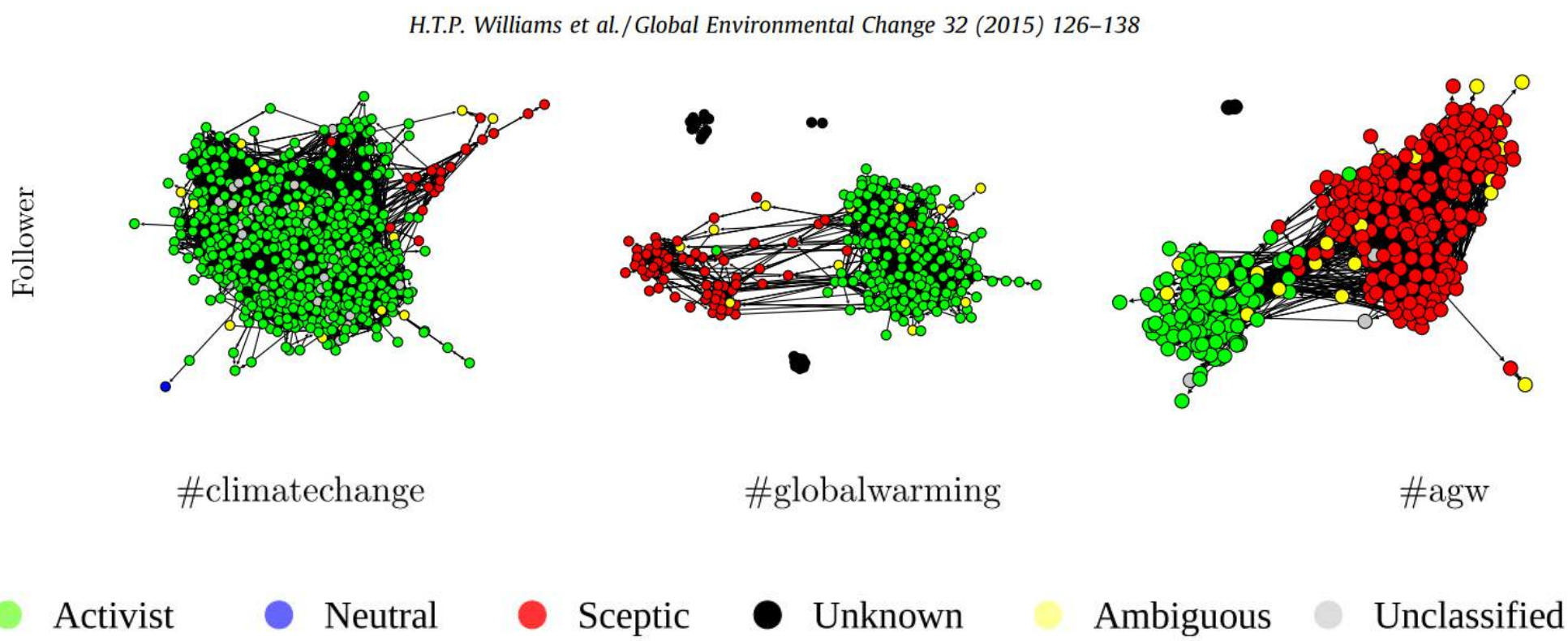
- Face Recognition
  - Identifying gender and race

- Racism in Judicial System
  - COMPAS decides sentencing based on chance of reoffending
  - Black defendants sentenced more severely

- Sexism and Gender Bias
  - Linguistic associations:
    - Male names with careers
    - Female names with home and the arts
  - European-American names vs. African-American names

WHY DO BIASES PERSIST?

We seek out people who have similar view to ours



Williams, H. T., McMurray, J. R., Kurz, T., & Lambert, F. H. (2015). Network analysis reveals open forums and echo chambers in social media discussions of climate change. *Global Environmental Change*, *32*, 126-138.

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WHAT ARE THE BIASES?

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- Bias in *Who Should Lead*
- Stereotypes about Leadership Qualities
- Expectations about Gender

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137 senior (Director or above) female leaders participated, completing personality assessments that were compared to an equivalent group of 137 male leaders.

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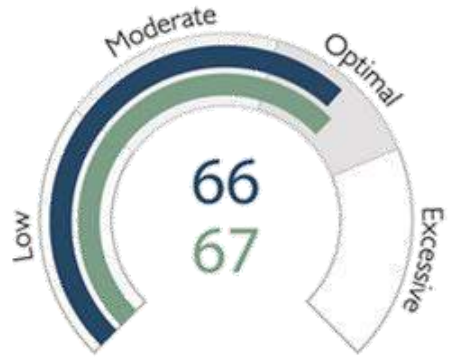
HPTI

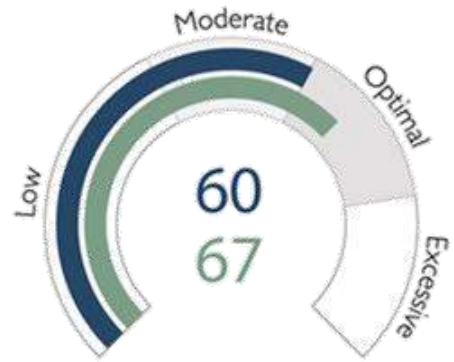
Female vs Male scores

- Female scores
- Male scores

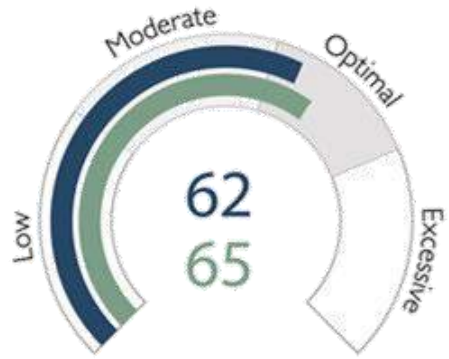
Conscientiousness



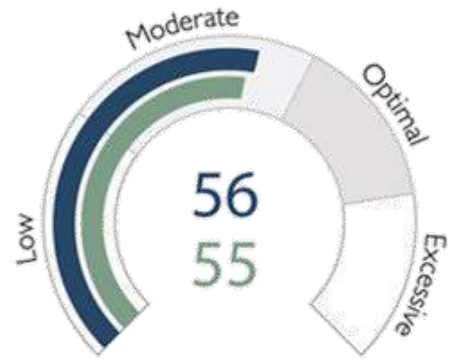
Adjustment



Curiosity



Risk Approach



Ambiguity Acceptance

Competitiveness

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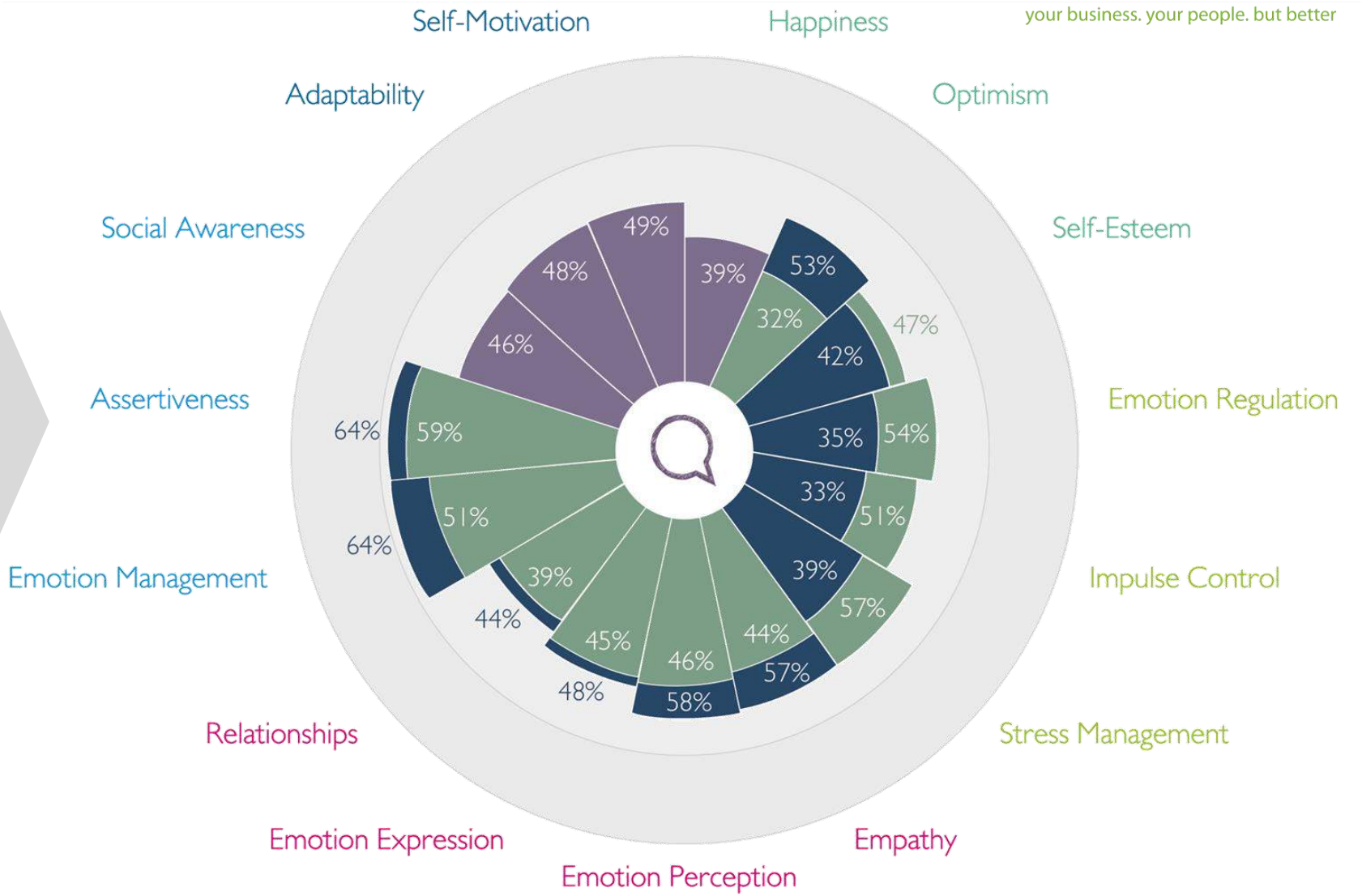
QTEIQue

Female vs Male scores

- Female scores
- Male scores
- Equal scores



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How do we reduce AI's bias?

- HR specialists involved in building models
- Data
  - Put rubbish in, get rubbish out
- Greater emphasis on identifying, recognizing, and removing bias

Thank you

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