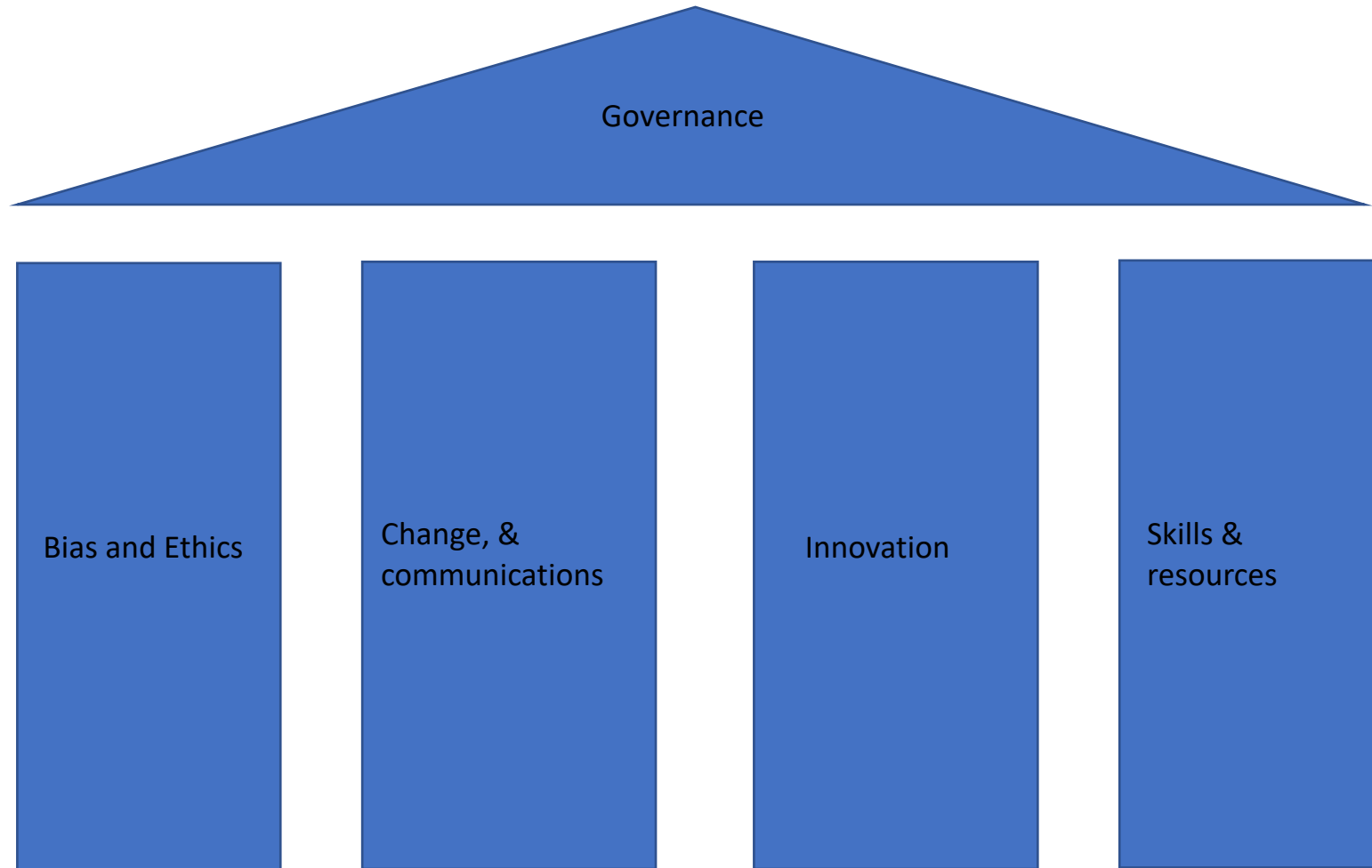




Leadership – introducing Ai in Healthcare

5 key aspects of Ai leadership



Bias and Ethics



Bias is inherent in being human!

Myanmar, 2012

Bias and Ethics



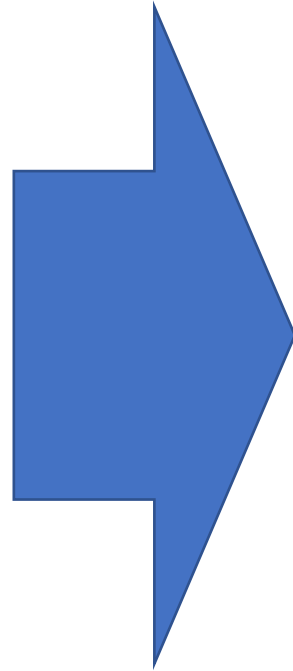
- Bias is inherent in being human...
- But we must aim for awareness and try to achieve maximum fairness.

When it goes wrong

Bias in design

Bias in data

Bias in selection



RETAIL | OCTOBER 11, 2018 / 10:04 AM / UPDATED 3 YEARS AGO

Amazon scraps secret AI recruiting tool that showed bias against women

By Jeffrey Dastin

8 MIN READ



SAN FRANCISCO (Reuters) - Amazon.com Inc's [AMZN.O](#) machine-learning specialists uncovered a big problem: their new recruiting engine did not like women.



How to overcome bias

- Adopt safety and fairness by design
- Test using different frameworks
- Pilot before scaling
- Ensure diversity of committees, datasets, test approaches
- Adopt strong ethics principles for Ai...

Ethical principles. The WHO recommends...

- **Protect autonomy**
- **Promote human safety**
- **Ensure transparency**

Ethical principles. The WHO recommends...

- **Foster accountability**
- **Ensure equity**
- **Promote AI that is sustainable**

What are the leadership implications?

Change and Communications – The usual way

NO DUMPING:

AREA IS UNDER 24 HOUR VIDEO SURVEILLANCE FINE \$ 1500.00.

THESE GARBAGE PAILS ARE FOR THE USE OF THE RESIDENCE AT 100 MOSCO STREET ONLY!

ANYONE OTHER THEN THAT, SHALL BE FINE \$ 1500.00 AND YOU SHALL BE CAUSED WITH BAD FORTUNE.

THOSE THAT DO NOT VIOLATE OR DUMP HERE SHALL BE BLESSED WITH GOOD LUCK.

THANK YOU FOR YOUR COOPERATION.

不準丟垃圾、雜物!

24小時影像, 罰款 \$ 1500元! 這些垃圾桶只供100 MOSCO 街住宅使用。

このドアは、無人でも閉まっています。

必ず、ノックをして確認して下さい。

**This door is closed whether
there is or is not anyone .**

**Please knock the door before
you use, to be sure there isn't.**

We need more than signs!

- Is Ai different to any other technology implementation?
- Run poll...
- Same / Different
- Why? Hint: think about Wicked Problems

The best way to communicate...is...?



What is being said?

How?

Cuba, 2013

Innovation in action



Necessity is the mother of invention...

An ambulance when you don't have a car or a truck.

Innovation

- Is the field of Ai any different when it comes to innovation?
- Some academics suggest that Ai can lead to substitution away from more routinized labor-intensive research towards research that takes advantage of the interplay between passively generated large datasets and enhanced prediction algorithms. (Cockburn et al 2018)
- What might be the implication?

What skills do we need to learn?



- Ethics
- Some fundamentals:
 - statistical approaches from Ai to machine learning
 - likelihood of bias, impact of dataset sizes
 - Likelihood of issues such a re-identification of data
 - Data analysis essentials
 - Logic essentials
 - Mitigating Ai risk factors
- Communications and change
- Fostering innovation in the era of Ai

Governance

We need something at the top
to provide layers of
coordination and harmony...

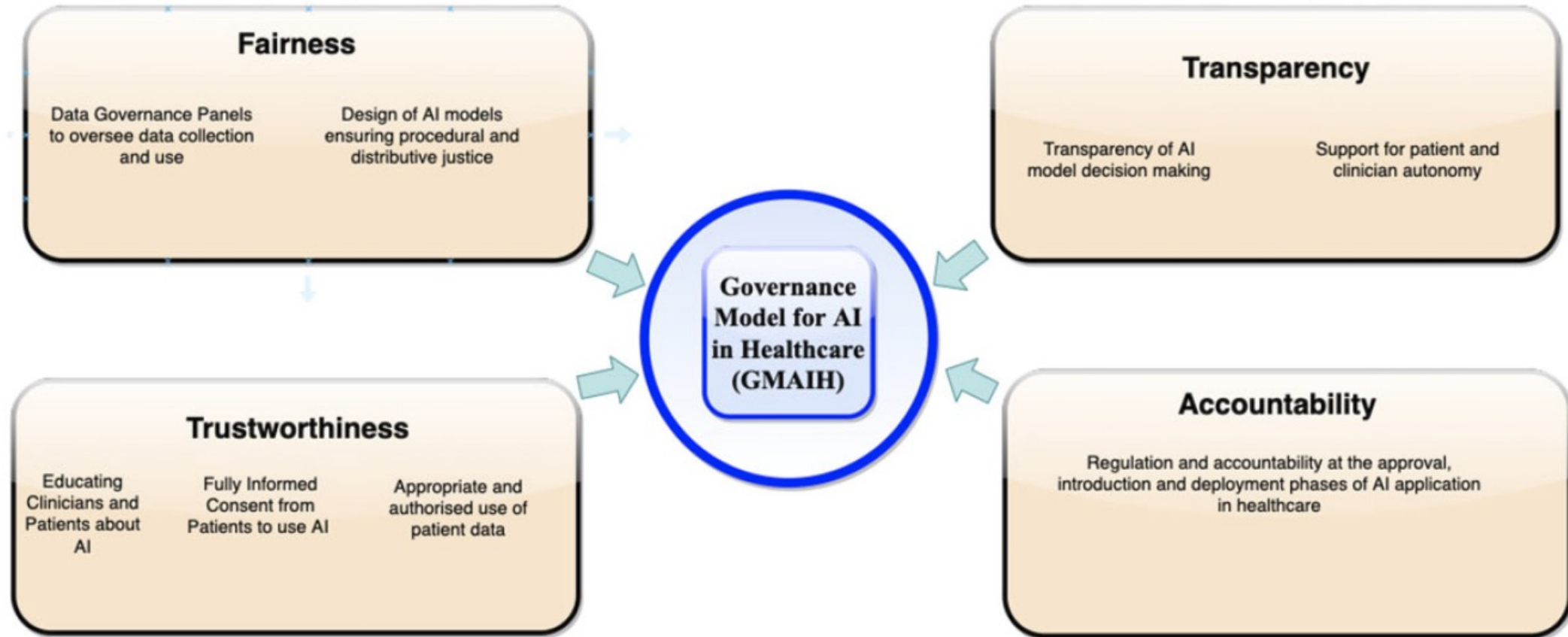


NYC, 2016

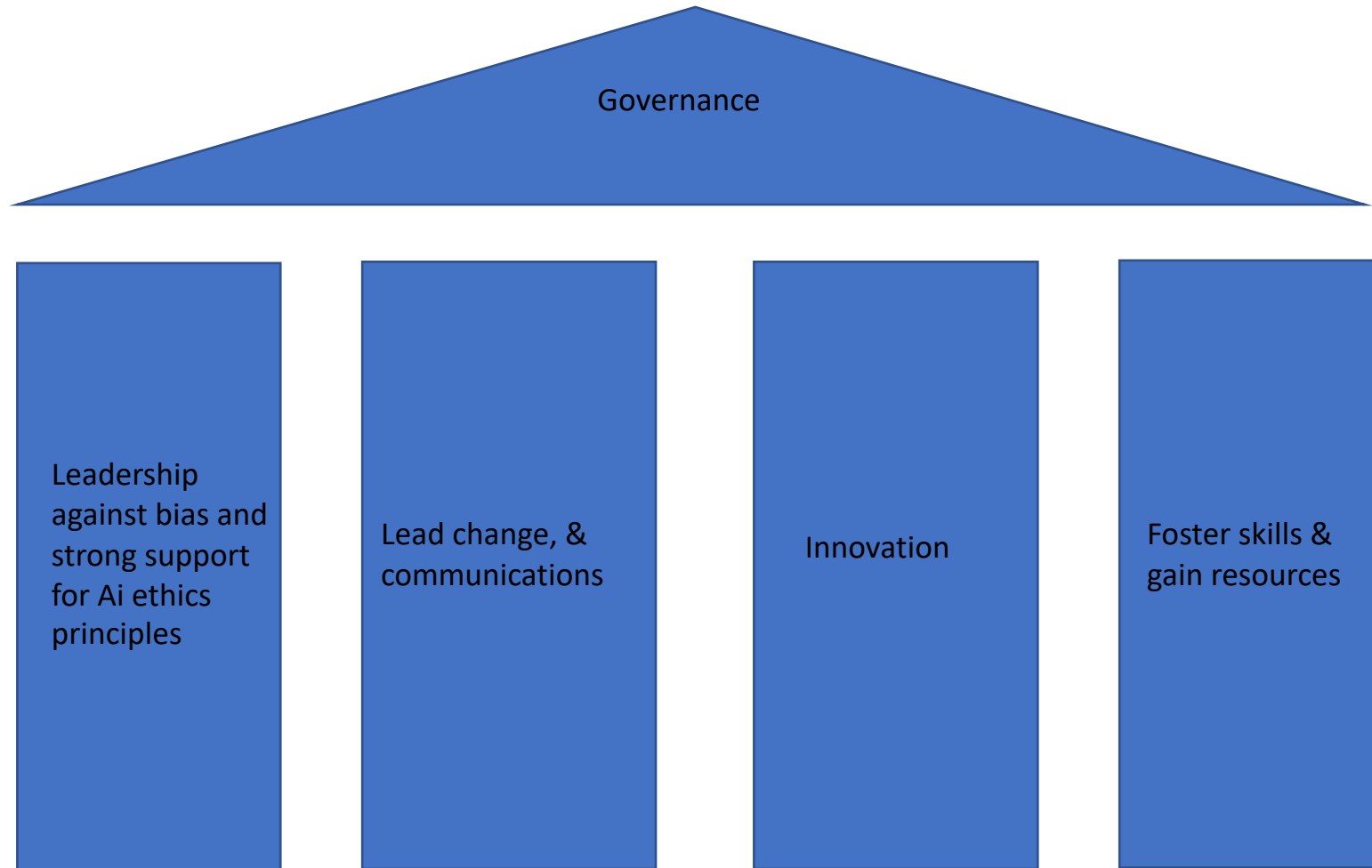
CHINA, 2010

Governance

Journal of the American Medical Informatics Association, 2019.



Five key aspects of Ai leadership



And so...calls to action

- **Learn about ethics** and potential of bias
- **Gain** some fundamental skills
- **Appreciate** communications and change
- **Learn how to foster innovation** in the era of Ai



Thank you.

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