



# AI is Shaping the World

Who Will Shape AI?

Kate Rosenshine

Data & AI Cloud Solution Architect Lead, Financial Services

Customer Success Unit

# Amplifying human ingenuity with intelligent technology



## Understanding

Interpret meaning of data  
including text, voice, images



## Reasoning

Learn and form conclusions  
with imperfect data



## Interacting

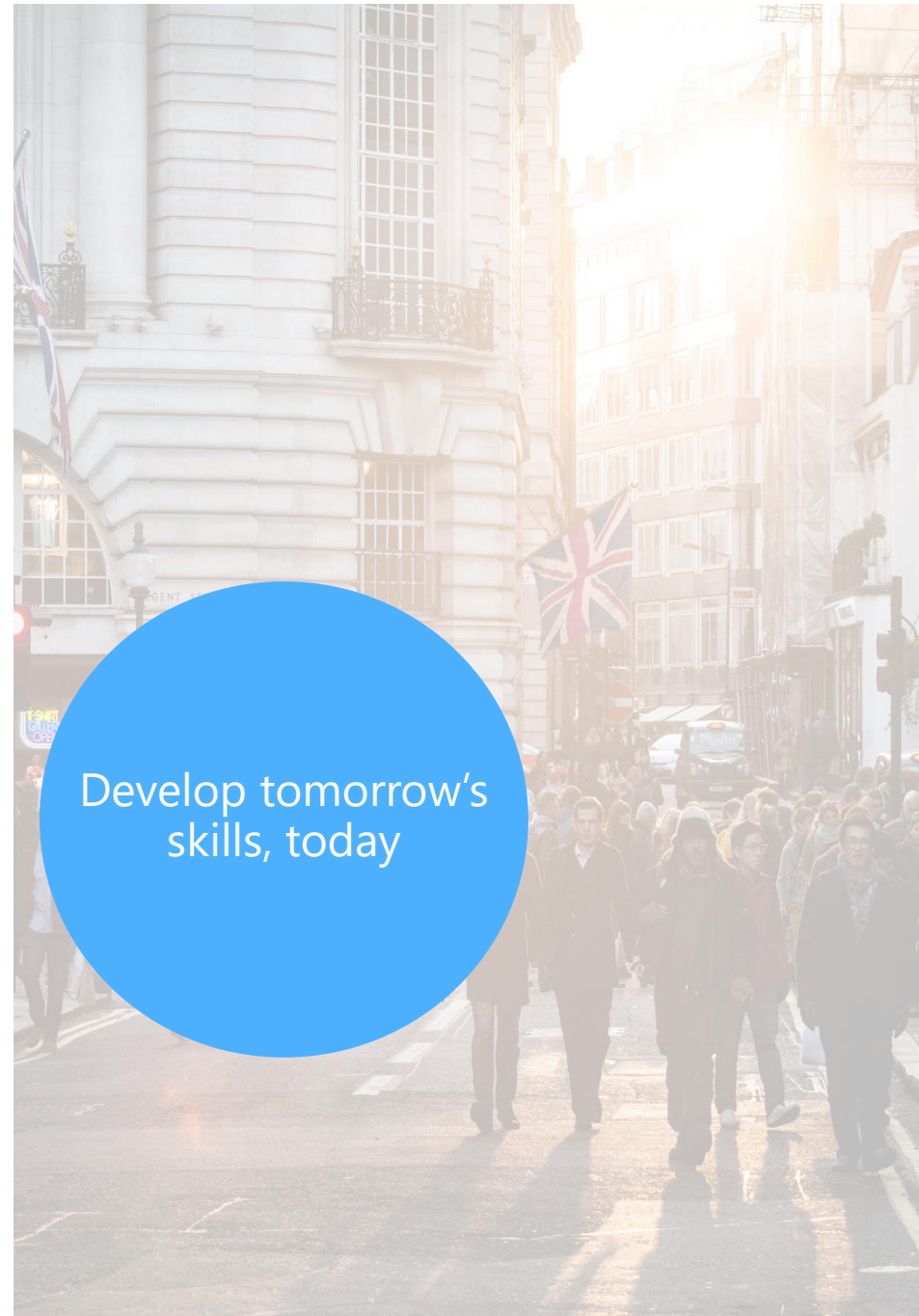
Interact with people  
in natural ways

# Harnessing AI's potential successfully and responsibly

Embrace AI's  
potential

Be a "should"  
organisation

Develop tomorrow's  
skills, today



# Responsible AI to Augment Human Ingenuity

Values AI needs to respect



Fairness



Reliability  
& Safety



Privacy &  
Security



Inclusiveness



Transparency



Accountability

# Should we, and not can we



## Transparency

People should [understand](#) how decisions were made

Provide [contextual explanations](#)

Make it easier to raise awareness of [potential bias](#), errors and unintended outcomes



## Accountability

People must be [accountable](#) for how their systems [operate](#)

[Norms](#) should be observed [during system design](#) and in an [ongoing](#) manner

Role for [internal review boards](#)

# Bias in data is human bias



## Fairness

Understand how bias can be introduced and [affect](#) recommendations

[Attract diverse](#) pool of AI talent

Develop analytical techniques to [detect](#) and [eliminate bias](#)

[Human review](#) and domain expertise



## Inclusiveness

[Inclusive design practices](#) to address potential barriers that could unintentionally [exclude](#) people

[Enhances opportunities](#) for those with disabilities

Build trust through [contextual interaction](#)

[EQ](#) in addition to IQ

# Classification





# Bias

## The New York Times

### *Facial Recognition Is Accurate, if You're a White Guy*

By STEVE LOHR FEB. 9, 2018



Gender was misidentified in **up to 1 percent** of lighter-skinned males in a set of 385 photos.



Gender was misidentified in **up to 12 percent** of darker-skinned males in a set of 318 photos.



Gender was misidentified in **up to 7 percent** of lighter-skinned females in a set of 296 photos.



Gender was misidentified in **35 percent** of darker-skinned females in a set of 271 photos.



# Why diversity is an even bigger imperative

MIT  
Technology  
Review

## The Dangers of Tech-Bro AI

Tabitha Goldstaub, a cofounder of [CognitionX](#), which helps companies deploy AI, says that diversifying the field is necessary to make sure products actually work well.

October 24, 2017

**I**f you think about artificial intelligence and the core components of what makes an AI, you have the fact that it's given a goal and then will find a way to reach that goal. It's then often very un-transparent as to how it reached that goal. If you're building into a machine some unconscious bias, you might not know that it's there; the output could be detrimental to women and it's very tough to work out exactly why that has happened.

In traditional technology, you can see [what has happened]: women



MIGUEL PORLAN

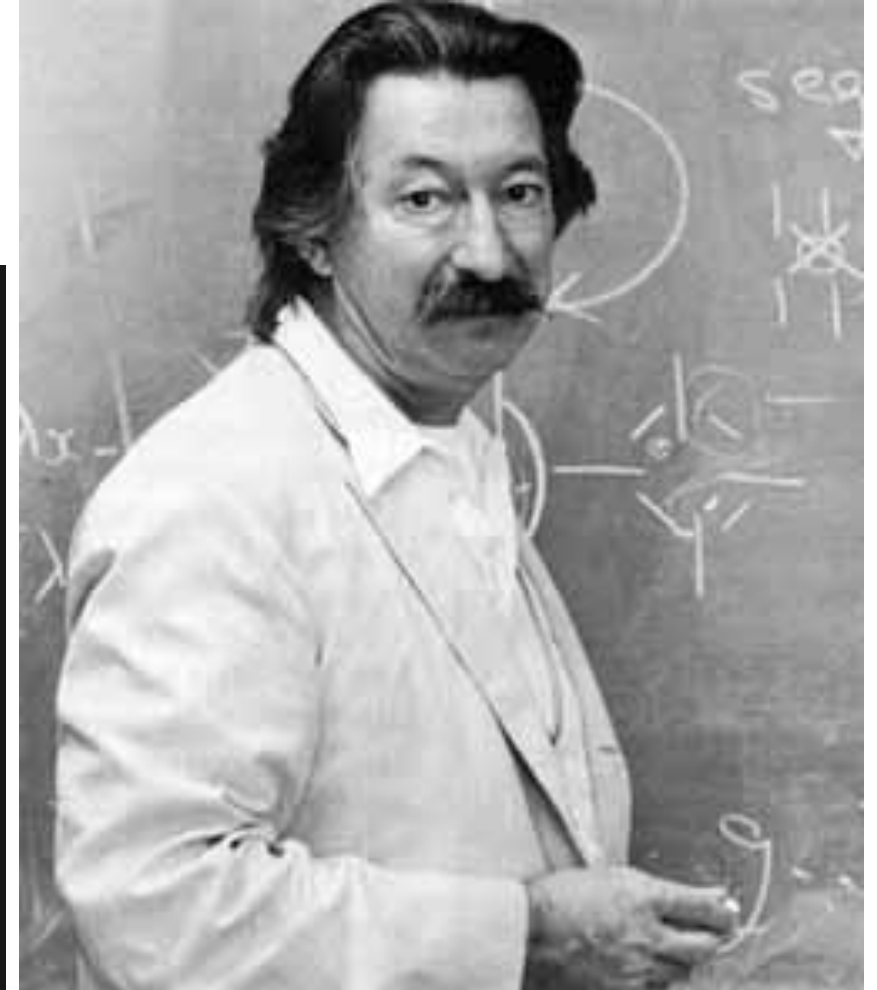
# Humans in the loop - Mitigating the risk of automation bias

```
Welcome to

EEEEEE LL      IIII ZZZZZZZZ  AAAAA
EE      LL      II      ZZ  AA  AA
EEEEEE LL      II      ZZZ  AAAAAAA
EE      LL      II      ZZ  AA  AA
EEEEEE LLLLLL IIII ZZZZZZZZ AA  AA

Eliza is a mock Rogerian psychotherapist.
The original program was described by Joseph Weizenbaum in 1966.
This implementation by Norbert Landsteiner 2005.

ELIZA: Is something troubling you ?
YOU:   Men are all alike.
ELIZA: What is the connection, do you suppose ?
YOU:   They're always bugging us about something or other.
ELIZA: Can you think of a specific example ?
YOU:   Well, my boyfriend made me come here.
ELIZA: Is it important to you that your boyfriend made you come here ?
YOU:   He says I'm depressed much of the time.
ELIZA: I am sorry to hear that you are depressed.
YOU:   It's true. I am unhappy.
ELIZA: Can you explain what made you unhappy ?
YOU:   █
```





# Focusing on skills

Promote **STEM learning** and uniquely **human** skills

Prepare **workers** for rapidly evolving economy

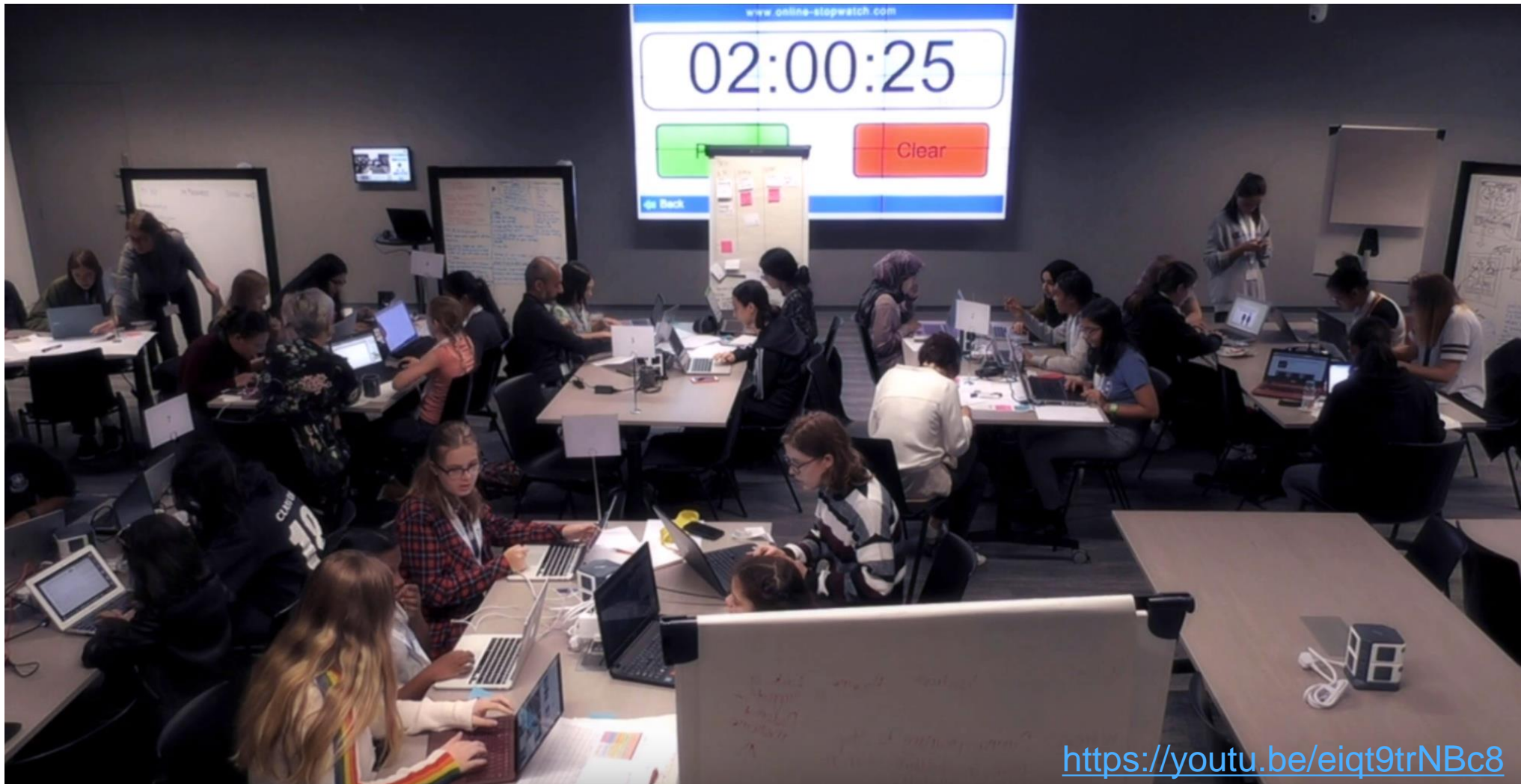
Enable **lifelong training**

Create a **skills-based labor market**

Match **jobs** with **workers**



AI is shaping the future... Who will shape AI?



<https://youtu.be/eiqt9trNBc8>





PATHS



SAVED



PROFILE

FILTER

Clear all

▼ LEVEL

▼ SERVICES

▼ TOOLS

▼ LANGUAGE

SORT

RECENTLY ADDED



SEARCH



## AI School

Dive in and learn how to start building intelligence into your solutions with the Microsoft AI platform, including pre-trained AI services like Cognitive Services and Bot Framework, as well as deep learning tools like Azure Machine Learning, Visual Studio Code Tools for AI, and Cognitive Toolkit. Our platform enables any developer to code in any language and infuse AI into your apps. Whether your solutions are existing or new, this is the intelligence platform to build on.



Custom Vision Service

3 Modules

55min

Beginner



AI Developer Bootcamp

2 Modules

5hr 38min

Beginner



Azure Machine Learning Real-world Examples

1 Modules

2hr 50min

Beginner

Join Visual Studio Dev Essentials  
for free, and get two months  
of free DataCamp training!



Visual Studio DataCamp

Join now!



Introduction to Artificial Intelligence (AI)

1 Modules

16hr 0min

Beginner



Learn Analytics

2 Modules

16hr 45min



Deep Learning Explained

1 Modules

2hr 0min

Intermediate

# Further Reading

Maximising the AI opportunity - How to harness the potential of AI effectively and ethically:

<https://aka.ms/UKAIreport>

The Future Computed: Artificial Intelligence and its role in society:

<https://news.microsoft.com/futurecomputed/>

To find out more about Microsoft's approach to AI, please visit:

<https://aka.ms/AI-approach>

“ We're at an inflection point with AI, and there are great opportunities ahead for empowering people and organizations in new ways.

However, beyond advancing the core science and engineering of AI, we need to work to understand and to address potential rough edges, costs, and inadvertent influences of AI on people and society.

”



ERIC HORVITZ