Discussion 3
Implications of AI for Society
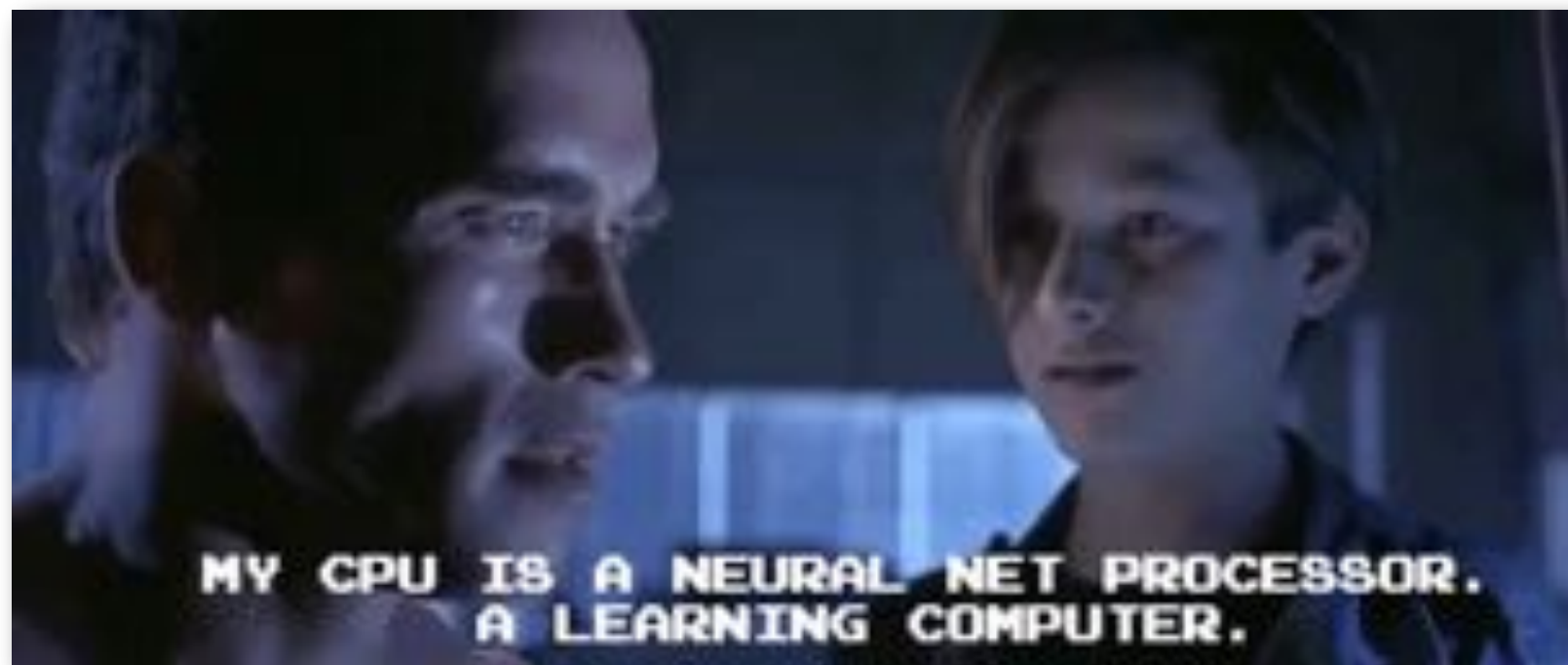
Discussion 3
Implications of AI for Society

This is **not** a commentary on Artificial Generalized Intelligence (AGI).

MY CPU IS A NEURAL NET PROCESSOR.
A LEARNING COMPUTER.
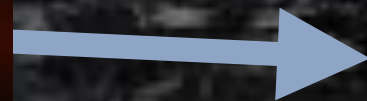
Power

* Bridging gaps between domains of knowledge, areas of experience, scales of time.

* e.g., united models of medical data.

* e.g., automated image captioning.

Describes without errors	Describes with minor errors	Somewhat related to the image
A person riding a motorcycle on a dirt road.	Two dogs play in the grass.	A skateboarder does a trick on a ramp.

Peril

* e.g., audio and video learned together

AI could now generate highly realistic videos of **BARACK OBAMA** using existing audio and video clips of him

Algorithmis affect us all

We are the data.

Chinese Facial Recognition System Would Fine Jaywalkers By Text

As opposed to simply displaying information on giant LED screens as happens now.

By David Grossman   Mar 28, 2018

深圳..交警

赵*乐

09.56

The Pentagon is getting serious about AI weapons

'We must see to it that we cannot be surprised,' says the Pentagon's top scientist

By Matt Stroud | Apr 12, 2016, 12:00pm EDT

Center for Public Integrity

f ⟩ ↗ SHARE

Photo by Sean Gallup / Getty Images

Algorithmic bias affects us all … disproportionately

Standard Training Set
"Labeled Faces in the Wild (LFW)"

Machine Bias

There's software used across the country to predict future criminals. And it's biased against blacks.

by Julia Angwin, Jeff Larson, Surya Mattu and Lauren Kirchner, ProPublica

May 23, 2016

Automation affects how (much) humans work

- Some of the jobs that *will* be affected by AI
  - Trucks and Taxis: **5M (10M)**
  - Retail: **5**M
  - Factory: **12M**
  - *Radiology: 34K*
  - Surgery: **700K**
  - Physicists: **20K**

Andrew Ng
@AndrewYNg   Following

Should radiologists be worried about their jobs? Breaking news: We can now diagnose pneumonia from chest X-rays better than radiologists.
stanfordmlgroup.github.io/projects/chexn...

6:20 PM - 15 Nov 2017 from Mountain View, CA

1,427 Retweets   2,375 Likes

112   1.4K   2.4K

Machine Bias

Bernard Parker, left, was rated high risk; Dylan Fugett was rated low risk. (Josh Ritchie for ProPublica)

Machine Bias

Who's thinking about these challenges?

- *Fair and Transparent Machine Learning* (fatml.org)
- *Data Science for Social Good* (blackinai.github.io)
- *Michigan Data Science Team* (midas.umich.edu/mdst/)
- *Women In Machine Learning* (wimlworkshop.org/)
- *BlackinAI* (blackinai.github.io)

Science has long been complicit in this machinery

"For example, **Huygens and Cassini facilitated and directed astronomical observation missions** in order to help the French better determine the location of St. Domingue, the island that houses the modern nations of Haiti and the Dominican Republic. Why? Because this would **help make the delivery of slaves and export of the products of their labor more efficient.**"
- CP Weinstein
[Decolonizing science reading list]

Chanda Prescod-Weinstein Follow
Dr. Chanda Prescod-Weinstein: fighting scientists with science
http://www.linkedin.com/in/chandaprescodweinstein / http://cprescodweinstein.com
Apr 25, 2015 · 10 min read

Opportunity

* Eras of disruption are inflection points for **balances of power**.

* **Access to knowledge** and technology arbitrates the accumulations or the shifts of power.

How do we **care for the planet?**

* Can teaching machines to learn help us discover ways for ourselves to learn better?

State of the Planet
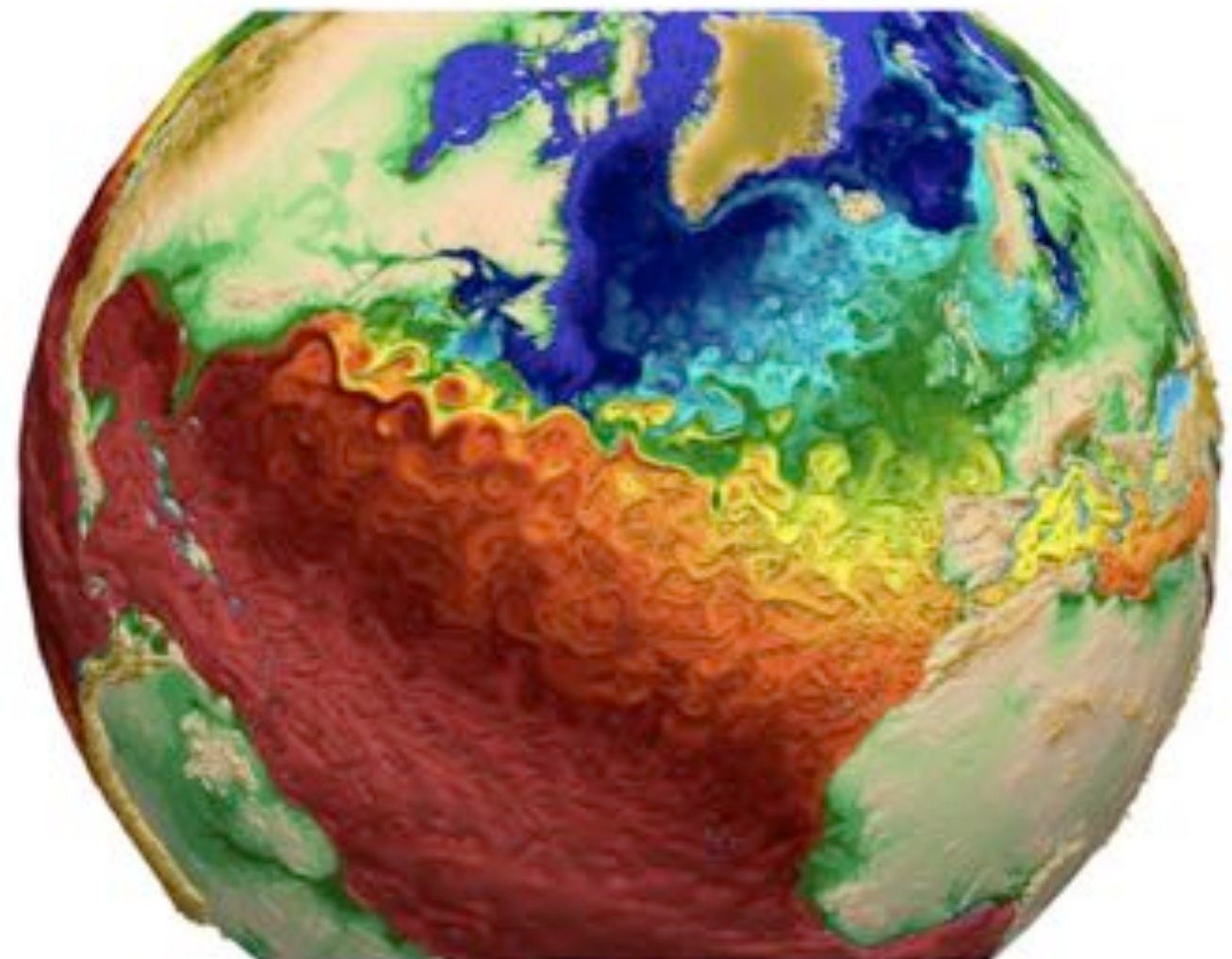
EARTH INSTITUTE | COLUMBIA UNIVERSITY

AGRICULTURE   CLIMATE   EARTH SCIENCES   ECOLOGY   ENERGY   HEALTH   SUSTAIN

CLIMATE, ECOLOGY

Artificial Intelligence—A Game Changer for Climate Change and the Environment

BY RENEE CHO | JUNE 5, 2018   f 281 ✉ ➕ 76 💬 Comments

AI is continually improving climate models. Photo: Los Alamos National Lab

How do we **game**?

THE VERGE   TECH ·   SCIENCE ·   CULTURE ·   CARS ·   REVIEWS ·   LONGFORM   VIDEO   MORE ·

GOOGLE \ SCIENCE \ TECH

DeepMind's Go-playing AI doesn't need human help to beat us anymore

The company's latest AlphaGo AI learned superhuman skills by playing itself over and over

By James Vincent | @jjvincent | Oct 18, 2017, 1:00pm EDT

f SHARE   y TWEET   in LINKEDIN

NOW TRENDING

I tried a sleep mask that bathes your eyes in light to wake you up

✳ Can we learn from machines how to play games better? And by extension, how we interact with each other?

How do we **learn**?

How researchers are teaching AI to learn like a child

By Matthew Hutson | May. 24, 2018 , 10:20 AM
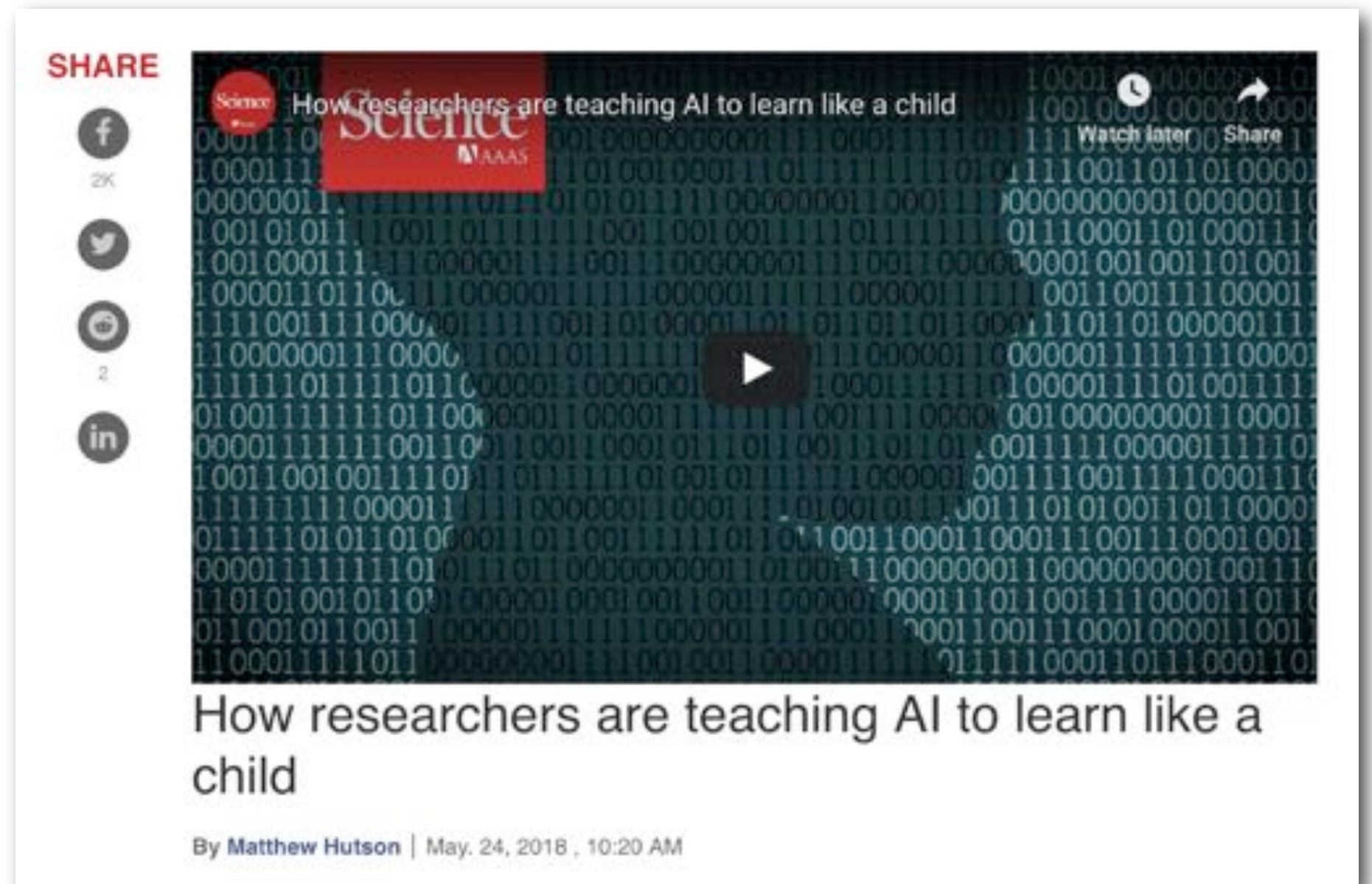
✳ Can teaching machines to learn help us discover ways for ourselves to learn better?

How do we **work**?

* How do we use this opportunity to change the culture of our work, who has access to work and training,

Watching for trends

REUTERS   World   Business   Markets   Politics   TV

Midterm Elections   Imprisoned In Myanmar   Sectors Up Close   Breakingviews   Investing   Future of Money   Charged: The Futur

BUSINESS NEWS   OCTOBER 16, 2018 / 6:57 AM / 24 DAYS AGO

Uber IPO proposals value company at $120 billion: WSJ

Wooo let's go!