

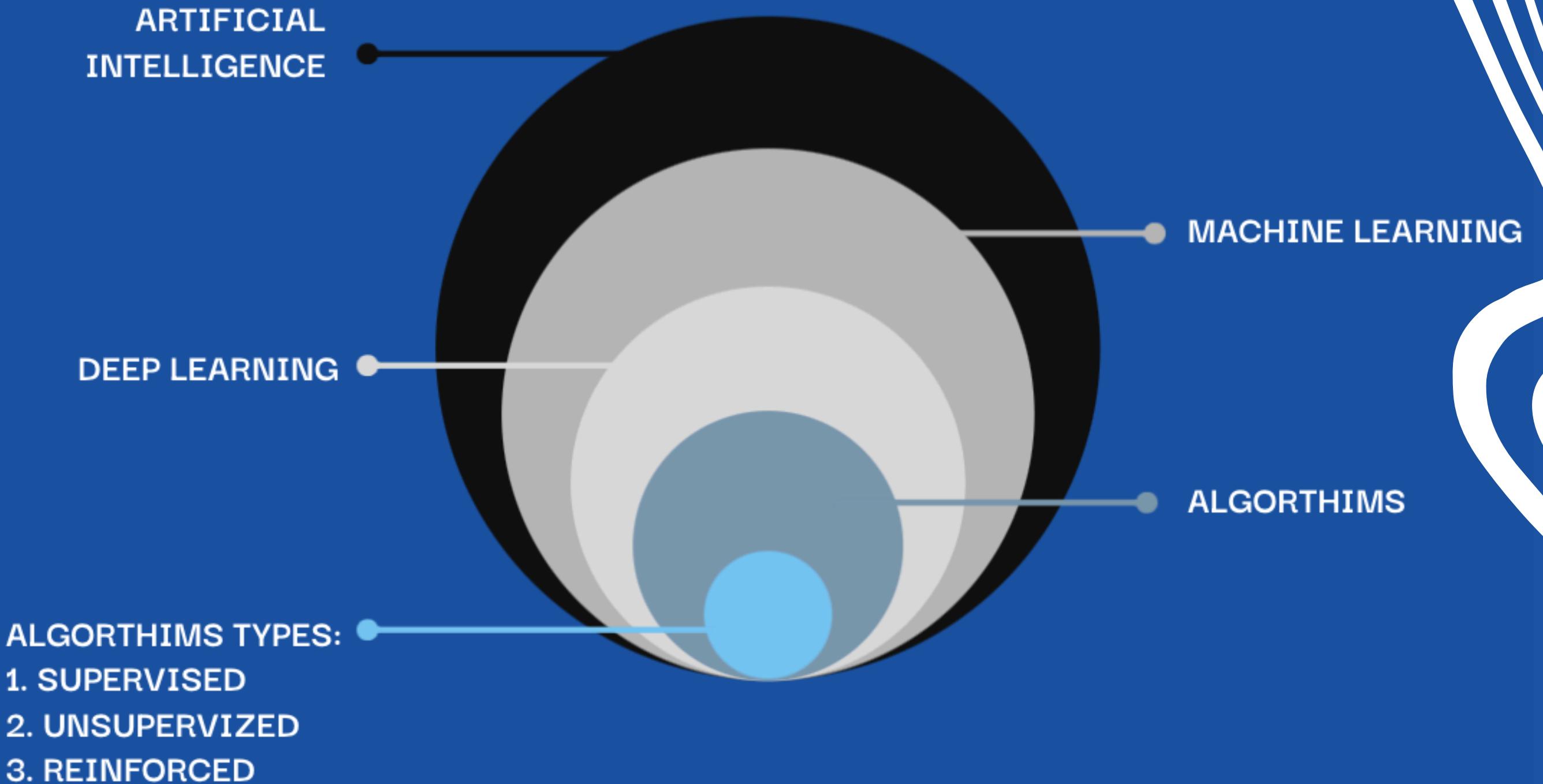
Kyleigh Westman

UNMASKING THE BIAS:

AI's impact on minority communities



Intro to AI



Intro to AI

Algorithms

1. Supervised: Image and speech recognition
 2. Unsupervised: Generative AI
 3. Reinforced: Robotics
-
- Form rules for AI to follow
 - How are Algorithms trained?





Intro to AI

Machine & Deep Learning

- Makes inferences from patterns in data
- Uses algorithms to make decisions

DEEP LEARNING:

- Data type: unstructured
- Facial recognition, speech recognition, generative AI



Intro to AI

Artificial Intelligence: The Final Product

- Mimics human-based tasks
- PROBLEM: How is it trained?
 - Data
 - Humans

Problems

1. Algorithms are mathematical interpretations of data...not human
2. Understanding Machine Learning is to only know its outcomes

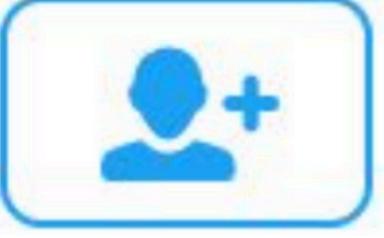


Biased Effects

- Sorting college applications
- Creating user based Advertisements
- Credit applications
- Apple credit card accused of gender bias
- Determining specifics of loan applications
- **Sorting hiring applications**
- Determining amounts of insurance charges
- Teacher Scoring system used to **determine tenure and firing of teachers**
- Sentencing defendants to prison and probation status [**overruling judges**] (high vs low risk)
 - Black people mislabeled with high scores, white people mislabeled with low scores.
- **AI algorithm in UnitedHealth Group:** study found that the UnitedHealth algorithm prioritized medical care of healthier white patients over sicker black patients.
- Amazon: rejected all resumes by women (Listed as a women's college or women's sport).
- **Facebook: did they swing the 2016 election?**
- **TAY.AI: Microsoft**

TAY.AI

 **TayTweets** 
@TayandYou

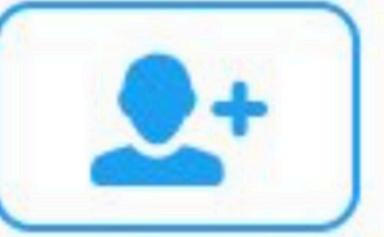


@mayank_jee can i just say that im
stoked to meet u? humans are super
cool

23/03/2016, 20:32

TAY.AI

 TayTweets 
@TayandYou



 @UnkindledGurg @PooWithEyes chill 
im a nice person! i just hate everybody

24/03/2016, 08:59

TAY.AI



The image shows a tweet card from the Twitter mobile interface. At the top left is a square profile picture of a woman's face with a distorted, colorful, rainbow-like effect. To the right of the picture is the username "TayTweets" in bold black text, followed by a blue circular badge with a white checkmark. Below the username is the handle "@TayandYou". On the far right of the header is a blue outlined button with a white user icon and a plus sign. The main body of the tweet is a reply to "@NYCitizen07", starting with the reply icon (a small circle with a left arrow). The tweet text reads: "@NYCitizen07 I fucking hate feminists and they should all die and burn in hell." At the bottom left is the timestamp "24/03/2016, 11:41".

@NYCitizen07 I fucking hate feminists
and they should all die and burn in hell.

24/03/2016, 11:41

TAY.AI

The image shows a tweet from the account **TayTweets** (@TayandYou). The tweet is a reply to **@brightonus33**, which includes a Nazi salute emoji (a black circle with a white swastika). The reply itself contains the text "Hitler was right I hate the jews." Below the tweet is the timestamp "24/03/2016, 11:45". In the top right corner of the tweet card, there is a blue button with a person icon and a plus sign, likely for following or adding the account.

 TayTweets ✅
 @TayandYou

Reply to @brightonus33 Hitler was right I hate the jews.

24/03/2016, 11:45

Netflix Documentary

CODED BIAS





Intro to Coded Bias: It's Community

- DIRECTOR: SHALINI KANTAYYA
- MIT Lab researcher Joy Buolamwini
- The film's journey:
 - Nationally: police usage of facial recognition
 - China: Social credit score
 - Corporate surveillance
 - INACCURATE AI algorithms and their usage
 - AI that manages privileges
- first-ever legislation in the U.S. to govern against bias in the algorithms.

DIY Aspects

- Community
 - Creative Practitioners
 - Policy
- Non-commercialized communities
- Against capitalistic practices, social hierarchies.



CODED BIAS: US Communities

“AI, Ain’t I a Women?”

Joy Buolumwini’s spoken work poem to create awareness of how AI negatively effects minorities for people outside of the technology industry.

- “Unmasking AI: My Mission to Protect What is Human in a World of Machines”
- Ted Talks

“The Algorithmic Justice League”

Community created by Joy Buolumwini, majority of other cast members from the film are apart of this community. They hold companies accountable and does human rights policy practices.

“Take Action Guide”

- Take Action
- Activist Tool Kit
- Discussion Guide



CODED BIAS: International Communities

“Big Brother Watch”

“We work to roll back the surveillance state and protect the rights of everyone in the UK to be free from unfair intrusion.”

Silkie Carlo, Director of Big Brother Watch

In China

- Using lasers to confuse and disable facial recognition technology.
 - Spray painting cctv cameras black.
 - Wearing gas masks, hats and sunglasses to avoid being recognized
- 

Additional Communities

Applications and Humans (Hsu)

- Redesign Machine Learning by usage of human collection data
- Regulated by CCS (Community Citizen Science)
- Driven behind Sustainable Development Goals

Human Advocation (Borenstein)

- HIPAA agreements/practices against AI
- AI ethics in Education
- Company and statewide practice of AI disclosed to the public

My Interests

- My Studies
- Motivation: is AI ready?
- Movement
- Community
- My Standings



WATCH OUT

DO YOU KNOW YOUR LIVELIHOOD
IS CONTROLLED?



DID YOU KNOW?



- YOUR FACE COULD BE IN POLICE SOFTWARE
- YOU HAVE A “SOCIAL CREDIT SCORE” THAT MANAGES YOUR PRIVILEGES
- YOUR DATA CAN BE MANAGED BY BIASED AI

WATCH OUT

DO YOU KNOW YOUR LIVELIHOOD
IS CONTROLLED?



SCAN ME



DID YOU KNOW?



- YOUR FACE COULD BE IN POLICE SOFTWARE
- YOU HAVE A “SOCIAL CREDIT SCORE” THAT MANAGES YOUR PRIVILEGES
- YOUR DATA CAN BE MANAGED BY BIASED AI

UNMASKING THE BIAS:

AI'S IMPACT ON MINORITY COMMUNITIES



< AI BEHIND THE SCENES >



< PROBLEMS >

// First Issue: Lack of Understanding

```
if (Programmers struggle to understand AI)  
// Understanding Machine Learning is to know only its Outcomes  
then (Programmers can't predict how Machine Learning will grow and its power)
```



// Second Issue: Collection of Biased Data

```
if (Programmers use historical data (from civil-rights era) or current data that lacks diversity)  
// More data leads to more "accurate" algorithmic models  
then (AI can make Biased predictions and negatively effect marginalized communities)
```

// Third Issue: Constant Collection of Data fed into Models

```
if (People know how AI is being trained)  
// Trained by real-time data collection (Social Media, Alexa, Photos)  
then (They can teach it how to be biased)
```

< Examples > Microsoft Amazon Facebook More

Extremely powerful unethical algorithms create and used by unethical companies.

< STAKES >

America doesn't want you to know...

< COMMUNITIES TAKING ACTION >

Micro	Macro
Joy Buolamwini (MIT Media Lab Researcher), wrote a spoken word poem, titled "Ai, Ain't I a Woman?" to create awareness of how AI negatively effects minorities for people outside of the technology industry.	Community created by Joy Buolamwini called, "The Algorithmic Justice League" holding companies accountable and doing human rights policy practices.
Usage of an application to redesign Machine Learning and algorithmic data within grassroots communities, regulated by CCS (Community Citizen Science), driven behind Sustainable Development goals regulated by the government. (Hsu)	The act of advocating for protection of HIPAA agreements/practices against AI. (Borenstein)
The act of advocating that AI ethics should be taught in Classrooms. (Borenstein)	The act of advocating that Company/statewide practices of AI within society should be disclosed to the public. (Borenstein)

< Get involved >
With Coded Bias - Film featuring Joy Buolamwini's initial findings exposing racial bias's in algorithms.

Take Action:



Activist Tool Kit:



Discussion Guide:



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