Tech & Power
Building Community-Centric Tech Policy

Jennifer Lee
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Discuss: Can technology fix structural inequity?

*Structural inequity* = the systemic disadvantage of one social group compared to other groups with whom they coexist. Examples of structural inequities are the personal, interpersonal, institutional, and systemic drivers—such as racism, sexism, classism, able-ism, xenophobia, and homophobia, that create systematic differences in the opportunities groups have, leading to unfair and avoidable differences in outcomes.

Source: The National Academy of Sciences / Communities in Action: Pathways to Health Equity
Overview

(1) Technology & Structural Inequity
(2) New Technologies = New Power Dynamic
(3) Building Community-Centric Technology Policy
(4) Key Takeaways
1: THE BIG PICTURE
Technology & Structural Inequity
Assumption: Tech will fix our societal problems & make people’s lives better.

Source: P.S. Mueller
AI and Health Care Are Made for Each Other

The Future of Artificial Intelligence In The Workplace

Automation Technology Can Enhance Federal Cybersecurity

The Army Is Bringing Artificial Intelligence To Its Armored Vehicles

4 Reasons to Use Artificial Intelligence in Your Next Embedded Design

China throws its weight behind A.I. and blockchain as it aims to be the world’s tech leader
Question: Does tech make the world better? And if so, for whom?
Technology isn’t “neutral”

Every technology reflects a set of value choices, often made by people in positions of power.

Microsoft HoloLens

An Open Letter to Microsoft: Don’t Bid on the US Military’s Project JEDI

Signed by employees of Microsoft

Wiki: Ramadhanakbr / BY-SA 4.0

Hostile architecture:
Bolts installed on steps in France

Wiki: DocteurCosmos / CC BY-SA 3.0

Bench in Calgary, Alberta, Canada

Twitter: @isaacazuelos
Technologies are being released into a context of structural inequity

- **Structural inequity** = personal, interpersonal, institutional, and systemic drivers that create systematic differences in the opportunities groups have, leading to unfair and avoidable differences in outcomes.

- When one group has historically set the rules and written the laws of the land, access of others to resources and power is limited.

Source: National Equity Project
Technology has always disproportionately impacted marginalized groups
1700s: NYC’s Lantern Law

The minutes from the meeting of New York City's Common Council in March 1713, when New York's lantern law was put in place.

Ethan Chiel / NYC Municipal Archives
1940s: Japanese Incarceration

Members of the Mochida family awaiting evacuation bus. Identification tags are used to aid in keeping the family unit intact during the evacuation.

IBM’s Hollerith Punch Card

Official notice of exclusion and removal

Lange, Dorothea / National Archives and Records Administration
The FBI’s “COINTELPRO” or Counter Intelligence Program targeted civil rights leaders and Black Panther Party leaders and “neutralized” via assassination, imprisonment, public humiliation, and false crime charges.

The "suicide letter", that the FBI mailed anonymously to Martin Luther King Jr. in an attempt to convince him to commit suicide.
Since at least 2002 - 2017, the New York City Police Department’s Intelligence Division engaged in the religious profiling and suspicionless surveillance of Muslims in New York City and beyond.
ICE is continuing to use automated license plate readers, cell snooping devices, facial recognition, and other technologies to target immigrants for deportation.
2018: A shift in the tech narrative

- Cambridge Analytica
- Project Maven
- Project JEDI
- Amazon pitching Rekognition to ICE
2018: A shift in the tech narrative

Amazonians: We Won't Build It
@WeWontBuildIt

Amazon workers calling for accountability and transparency in the tech we build. #WeWontBuildIt
2: NEW TECH = NEW POWER
Artificial Intelligence & Automated Decision Systems
What is artificial intelligence?

- **AI** = A field of computer science dedicated to building machines that solve problems usually solved by humans

- **Algorithms** = step-by-step directions that form the building blocks of AI systems
General & Narrow AI

General AI

Narrow AI

McGeddon / CC BY 2.5
What are Automated Decision Systems?

**ADS:** Data-driven tools, often are powered by AI, that aim to aid or replace human decision making.
New technologies are powered by data

- Virtually all important decisions about us involve data analytics.
  - Credit scores
  - Policing
  - Public benefits
  - Employment
- But most people don’t know that algorithms are involved in these decisions.
Technology Targeting Cycle

Communities aren’t at the decision-making table
Tech can exacerbate existing inequity

How Police Technology Aggravates Racial Inequity: A Taxonomy of Problems and a Path Forward

Laura Moy
Center on Privacy & Technology at Georgetown Law
Date Written: February 24, 2019

Tech can replicate, mask, transfer, magnify, and compromise oversight over inequity.
Tech can exacerbate existing inequity

- **Replicating inequity**: e.g., embedding/reinforcing inequity
- **Masking inequity**: e.g., idea that tech is neutral
- **Transferring inequity**: e.g., flawed/biased tools spread
- **Worsening inequity**: e.g., existing inequity is exacerbated
- **Compromised inequity oversight**: e.g., tech obscures practices from public scrutiny
“As I was taking pictures of my family, it kept asking ‘Did someone blink?’ even though our eyes were always open.”
Algorithms & Structural Inequity

Affect Recognition: “profiling people and revealing their personality based only on their facial image.”
Face++ rated the emotions on facial expressions of basketball players out of 100. Black faces were, on average, rated as angrier and unhappier than white faces.

Credit: Chart: The Conversation, CC-BY-ND Source: SSRN (2018)
Is bias fixable?

- “Fixing” bias is very difficult, if not impossible in a structurally inequitable society.

- Important questions:
  - What problem are we asking the technology to solve?
  - What guardrails are we putting around the technology?
  - Who has the power to decide whether and how to build and deploy a technology?
Litigation: Automated Decision Systems

- **K.W. v. Armstrong (Idaho 2014)**
  - Idaho’s state Medicaid program began using a new ADS to determine Medicaid payments for adults with intellectual and developmental disabilities.

- **Ark. Dept. of Human Services v. Ledgerwood (Ark. 2017)**
  - In 2016, without notice, the State of Arkansas introduced an algorithm that drastically reduced the Medicaid attendant care hours for many low-income adult Medicaid participants living with disabilities.

- **Barry v. Lyon (6th Circ. 2016)**
  - The Michigan Department of Health and Human Services (MDHHS) began using a matching algorithm that automatically disqualified individuals for food assistance if the system determined they had an outstanding felony warrant.
3: FIGHTING BACK
How are we creating community-centric technology policy?
Tech Fairness Coalition
Community Advocacy & Education
Algorithmic Equity Toolkit

Identifying a Surveillance Tool or Automated Decision System (ADS)

What data type(s) does the tool or system use?*
- Sounds
- Images & Video
- Text & Other Digital Data
- Location

If the tool or system only collects, records, or stores data then it is a Surveillance Tool. A surveillance tool is any electronic device, software program, or hosted software solution that is designed to be used for the purpose of surveillance.

*Note: The data types, ADS examples, and functions in this guide are not exhaustive, and some tools may use a combination of different data types or ADS functions.

What does the ADS example do with the data?
- Classification
- Regression
- Groups similar gunshot sounds by gun type
- Matches similar facial images
- Groups people with similar characteristics
- Predicts a crime risk score

Potential Scenarios

- If an algorithm is designed to be used for the purpose of surveillance, it must consider the potential negative impacts on community members.
- If the algorithm is designed to be used for purposes other than surveillance, it must consider the potential negative impacts on community members.

In the following scenarios, what are the negative impacts on affected community members such as adverse impacts on civil rights and for discrimination of policing and punishment?
- If an algorithm is designed to be used for purposes other than surveillance, it must consider the potential negative impacts on community members.
- If the algorithm is designed to be used for purposes other than surveillance, it must consider the potential negative impacts on community members.

Could the technology have negative impacts on affected community members such as adverse impacts on civil rights and for discrimination of policing and punishment?
- If yes, what solutions will be implemented to avoid the negative impacts on affected community members?
- What is the responsibility of community members to experience negative impacts from the technology?
- What will be the reporting process for negative impacts?

Current subject

Lebron James
Lisa Liske
Paris Hilton
Jennifer Lopez
Aaron Petrid
Jacqueline Edwards
Kalyna Chowla
Jocelyn Campbell
Kate Cecic
Vicki Zhao Wei

Threshold: You have selected a minimum similarity score to qualify for a match as "0".
Watching the Watchers: Countersurveillance Workshop Toolkit

Coveillance Team: Katherine Ye, Bonnie Fan, Jean Jung, Micah Epstein
Seattle Surveillance Ordinance

Victory! Seattle City Council Passes Ordinance to Regulate Surveillance Technology!
Seattle Surveillance Ordinance

- Law requiring public oversight over any surveillance tech being used by Seattle govt. agencies.
- Creates community-based advisory group.
Seattle Surveillance Ordinance: Implementation Process

14/29 technologies reviewed

- SPD’s ALPR
- SDOT’s Acyclica
- SPD’s CopLogic
WA State Bills: 2019 & 2020 Sessions

- Face Surveillance Moratorium Bill (HB 1654)
- Robo Decision Making (ADS) Bill (HB 1655)
- Commonsense License Plate Data Security Bill (HB 1663)
- Data Privacy
What can you do?

- Talk to your lawmakers
- Submit public comments
- Testify
- Question & engage
3: KEY TAKEAWAYS
Key Takeaways

- Technology isn’t neutral.
- Tech has always had disproportionate impacts on different groups.
- New technologies = unprecedented power.
- Fixing bias is extremely difficult, if not impossible.
- We need to create community-centric tech policy that seeks to intentionally break down bias.
- Talk to your lawmakers and get involved!
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