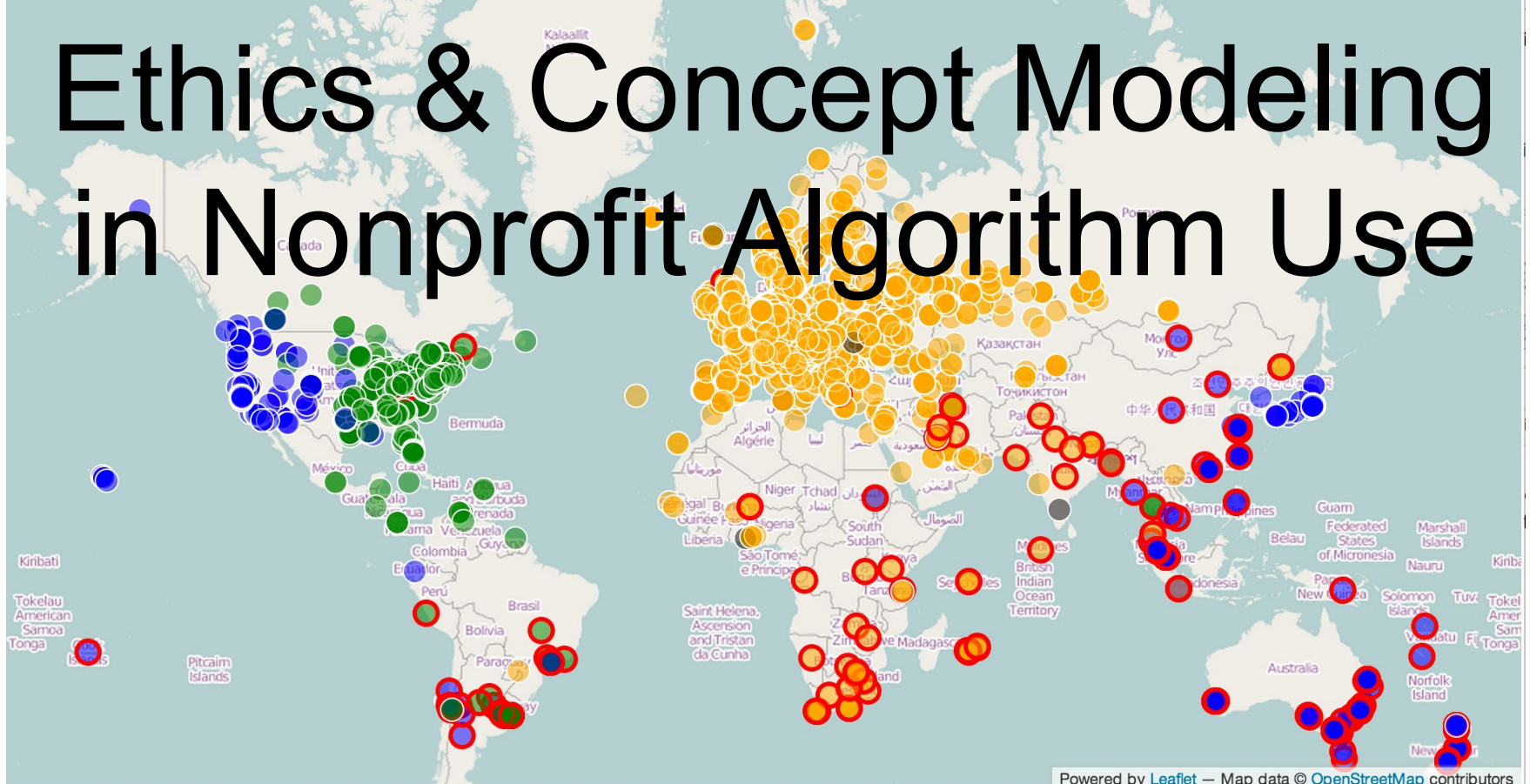# Ethics & Concept Modeling in Nonprofit Algorithm Use

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Nonprofit and Grassroots Org. Logic Models

Small organizations don't generally use *machine computed* algorithms, but we do use algorithms: formalized decision making, equity logic and mission-based choices drive our work as well as our outcome review.

Logic + Mission == Concept Modelling

~another way~

Mission + Algorithm == Applied Technology

But: are our models *ethical*? How would we know that?

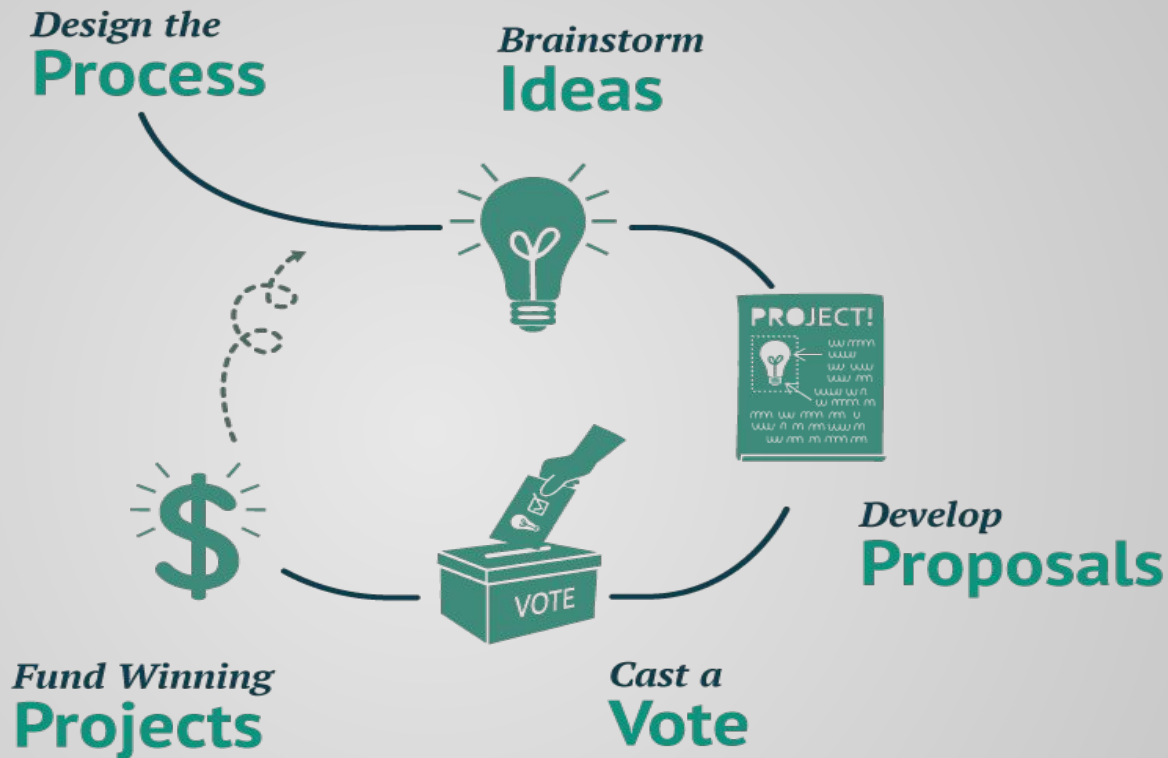@hadassahdamien // Participatory Budgeting Project

For example, a story about PB

MISSION: Participatory Budgeting (PB) is a democratic process in which community members directly decide how to spend part of a public budget.

How Participatory Budgeting Works

Design the **Process**

Brainstorm **Ideas**

PROJECT!

Develop **Proposals**

VOTE

Fund Winning **Projects**

Cast a **Vote**

Tristan Johnson, age 8, looks for an Easter egg at Children's Wonderland Park in Vallejo, CA. Funded through Participatory Budgeting, the park officially opened in June, replacing a long-vacant church.

PB is about civic engagement and equitable outcomes, like this example from Vallejo, CA

"It was a blight," says Marie Miller, member of the park's events planning committee. "But now it adds beauty to the neighborhood, and you see people out here almost every day."

Photo Credit: Mike Jory, Vallejo Times-Herald

Low-income votes in New York City

29%
of voters in
electoral voting

→

40%
of voters
in PBNYC

Source: Public Agenda, 2015.

Cool numbers! They lead to:
Outcome metrics + Mission = Impact Formula

The resultant outreach concept model looks something like this:

1. Increased equity is a social and public good (mission)
    +
2. Increased civic engagement is a social and public good (mission)
    so
3. Include outreach to underrepresented voter populations (metric)
    +
4. Increase outreach to existing participants, partners, and supporters (metric)
    +
5. Determine and collect vector or proxy data to measure increase, equity & engagement

(Numbers → Logic) + Mission = Concept Model

In this sector, social-technical structures originate from the "social": organizational missions.

This leads NPOs and grassroots orgs do one thing WAY better than programmed algorithms: We integrate concept models like justice, fairness, equity into our algorithmic behavior.

Does this make the model more ethical?

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Mission + Algorithm == Applied Technology

Two things about nonprofits' applications of data technologies:

1. Do not generally engage large-scale machinability, machine-learning, or big data:
   - Lessening mass outreach
   - Lessening peer touch, no "friends of friends"
   - Lessening siloization
   - Lessening responsibility for developing external data profiles

   Does this make the model more ethical?

Mission + Algorithm == Applied Technology

Two things about nonprofits' applications of data technologies:

2. Do seek out and sometimes collect sensitive demographic or proxy data to speak to our impact, mission, and donor reporting

Where nonprofits are making mission-based concept-modeled formulas, we may also gather data sets based on experiences of marginalization.

Does *this* make the model more ethical?

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Outcome metrics + Mission = Impact Formula

Let's return to the formula -- I forgot to add one part:

~~REPORTING~~

(Outcome metrics + Mission)
/
Funder & Board Review and Oversight

Does this make the model more ethical?

PB is endorsed as best practice in government, and this means our outcomes and data use is observed.
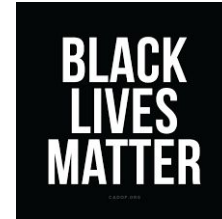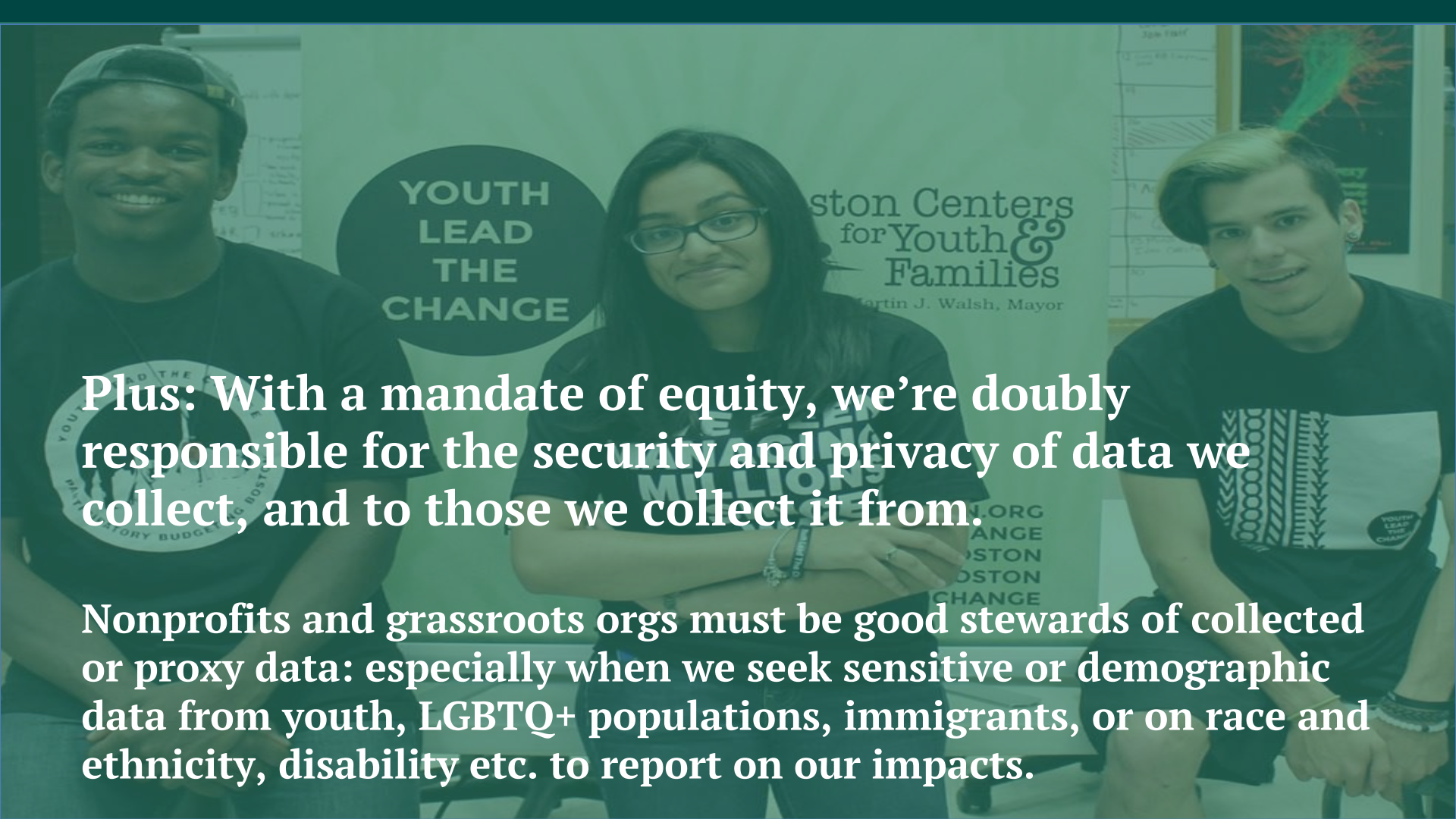
Plus: With a mandate of equity, we're doubly responsible for the security and privacy of data we collect, and to those we collect it from.

Nonprofits and grassroots orgs must be good stewards of collected or proxy data: especially when we seek sensitive or demographic data from youth, LGBTQ+ populations, immigrants, or on race and ethnicity, disability etc. to report on our impacts.

Transparency matters, especially in Civic Tech

Technology is not neutral, and neither are the decisions behind it.

For publicly or donor-funded organizations, a feedback loop on our algorithms is developed when we must reveal the thinking behind our use of data, as shown in impact reports.

Does this make them more ethical?

Outstanding questions:

How can oversight or evaluation make the contents of socio-technical algorithms (more) ethical?

What would a culture of data transparency (and anonymity) look like?

Can industry learn from NPOs focus on human intelligence in our modeling?

What algorithmic decision-making models can NPOs learn from to be more effective, while keeping mission at the core of their modeling?

What privacy and security measures should be considered crucial for civic or publicly-funded data?