What If I Don’t Like Any of The Choices?  
The Limits of Preference Elicitation for Participatory Algorithm Design  
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- Needs
- Values
- Goals

1. Option A
2. Option B
3. Option C
Preferences ≠ Participation
An example...

Students

Preferences over schools

Priorities over students

In SFUSD: sibling, preK/TK, CTIP1, attendance area

Schools

Matching algorithm

Best possible assignments for students subject to school priorities
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Three assumptions

1. Preferences are inherent and fixed

2. Preferences **fully encapsulate** relevant values, needs, and goals

3. Some aggregation of these preferences is **socially optimal**
1. Preferences are inherent and fixed

What do I prefer?

1. School A
2. School B
3. School C
4. School D
5. ???
6.
7.
...

[Image of a character with a list of schools]
1. Preferences are **inherent and fixed**

- **Students**
  - Preferences over schools
  - In SFUSD: sibling, preK/TK, CTIP1, attendance area

- **Schools**
  - Priorities over students
    - Inherent, fixed
    - Time consuming, situated

- **Matching algorithm**
  - Best possible assignments for students subject to school priorities
2. Preferences **fully encapsulate** relevant values, needs, and goals

What if I don’t like any of the choices?
2. Preferences **fully encapsulate** relevant values, needs, and goals

- **Students**
  - Preferences over schools
  - Priorities over students
  - "All choice"
  - Limited options, unequal access

- **Schools**
  - In SFUSD: sibling, preK/TK, CTIP1, attendance area
  - Added advantage to underserved students
  - Cannot address access and participation barriers

- **Matching algorithm**
  - Best possible assignments for students subject to school priorities

**What about alternatives to choice?**
3. Some aggregation of these preferences is socially optimal

What do we prefer?
3. Some aggregation of these preferences is socially optimal

Students

Preferences over schools

Priorities over students

In SFUSD: sibling, preK/TK, CTIP1, attendance area

Schools

Matching algorithm

Efficiency is optimal

Best possible assignments for students subject to school priorities

Outcomes constrained by preference patterns
Expanding participation beyond preferences

● Alternative formats
  ○ What formats would work well?

● More opportunities
  ○ When is participation appropriate?

● Discourse and deliberation
  ○ How can we build accessible tools and infrastructure to involve stakeholders in the design and governance of algorithmic systems?
Takeaways

- Preferences are an intuitive way to incorporate participation
  - Ask people what they want → Give as many people as possible what they want

- But, the story is more complicated than that...
  - How do we ask people what they want? Who responds?
  - What are the alternatives they can choose from? Who benefits? What’s missing?
  - How do we decide who gets what they most want? How does that drive change?
Thank you!

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