



Equality of Participation: Online Versus Face to Face

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Overview

Public Deliberation

- Informed discussion among citizens representative of general public.
- Provide input to policy decisions.
- Traditionally have met face to face.
- Considerable time and expense required.

Online Deliberation

- Same output, but through a different medium.
- More cost effective?
- Less inhibiting for public participation?
- Biases?
- Effectiveness in general? Are participants impacted by discussion?

Issues from the literature

- Many proposed methods, which is best?
- Mixed findings about effect of gender on participation in face-to-face deliberation.
- Many authors suggest online media are less favorable for women in general.
- Not everyone has access.
- Most research has looked at online or face to face in isolation.

This research

- Exploratory within-participants comparison of online and face-to-face deliberation.

Community Forum Project (AHRQ)

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- Gathered empirical evidence about *effectiveness of deliberation*.
- Compared results among different deliberative discussion methods.

Deliberative Question

Should individual patients and/or their doctors be able to make any health decisions no matter what the evidence of medical effectiveness shows, or should society ever specify some boundaries for these decisions?

The participants

- 1774 participants
- Sampled to be representative of the population of the areas where the study was conducted.
- Self reported education (highest level completed)
- Everyone who participated had access to the internet

Effectiveness Metrics

- **Quality** of deliberative experience or discourse.
- Changes in the participants' **knowledge** or attitudes of the deliberative topic.
- Changes in participants' **empathy** and concern for issues affecting the community at large.
- The **impact** of deliberation on decisions.

Deliberative Methods Explored in Community Forum Project

Deliberative Methods

1. Brief Citizens' Deliberation (BCD)

- 24 groups of 12 each, on average, F2F once for 2 hours, active facilitator

2. Community Deliberation (CD)

- 24 groups of around 12 people each, 2 F2F sessions of 2.5 hrs. each, with a week of access to an online asynchronous discussion forum (**Deme**) between sessions, active facilitator F2F

Deliberative Methods

3. Online Deliberative Polling®(ODP)

- 24 groups, 12 in each group, convened weekly online through a synchronous voice interface for four 75 minute sessions, minimal facilitation

4. Citizens' Panel (CP)

- 4 groups of 24-30 participants met for 2.5 days each, three active facilitators in large group meetings, plus non-facilitated breakout groups

Deliberative Methods

5. Reading Materials Only Group (RMO)

- No discussion with other participants – “control” group

Visualization

BCD

F2F



CD

F2F

Msg. Board

F2F



ODP

VOIP

VOIP

VOIP

VOIP



CP

F2F

F2F

F2F



Research Questions

Research Questions

- Do the medium (online vs. F2F) and/or modality (speech vs. text) have effects on equality of participation across demographic groups (ethnicity, gender, education, age)?
- Do online methods differ from F2F on individual-level equality of participation (EoP)?

Research Questions

- Do online methods differ from F2F in the effect of group size on EoP?
- Do individuals who participate more online also participate more F2F?

Research Questions

- What is the relationship between objective measures of EoP and self-reported experience?

Method and Measures

Research Method

- Transcript files from each of the sessions were scraped.
- Each line of the transcript was identified with a unique participant or the facilitator.

Measures

- Volume (percent of total words said, not including the facilitator)
- Frequency (percent of total utterances said, not including facilitator)
- Average contribution length

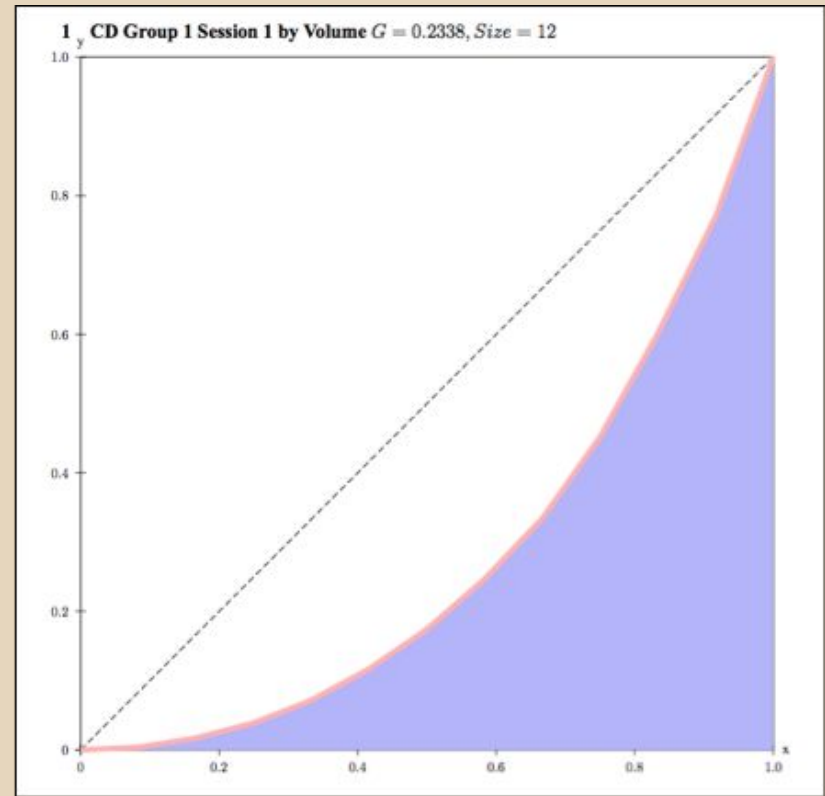
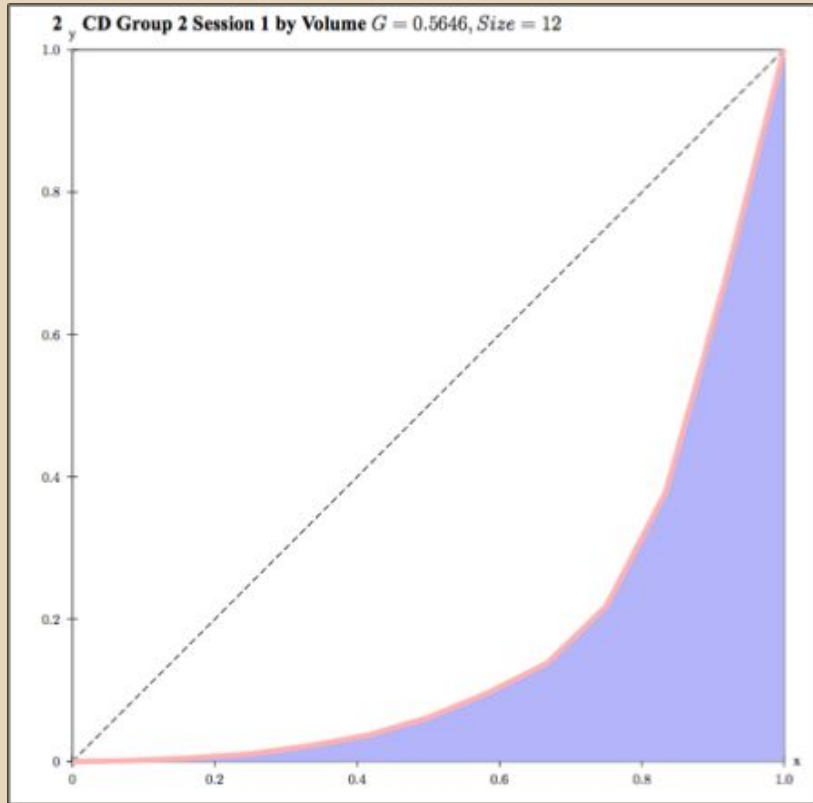
Independent Variables

- Age
- Gender
- Race
- Education
- Experience survey answers

Gini Indices

- Calculated based on the cumulative distribution function for each participation measure.
- Most common application of the Gini index is its use as a measure of income inequality
- Can be used as a measure of inequality in a data set.

Gini Indices



Gini Indices

- In this context the Gini index ranges from 0, representing complete equality, to 1, representing complete inequality.
- Gini indices were calculated for each session, and the values analyzed for each medium, in order to investigate EoP differences across methods.

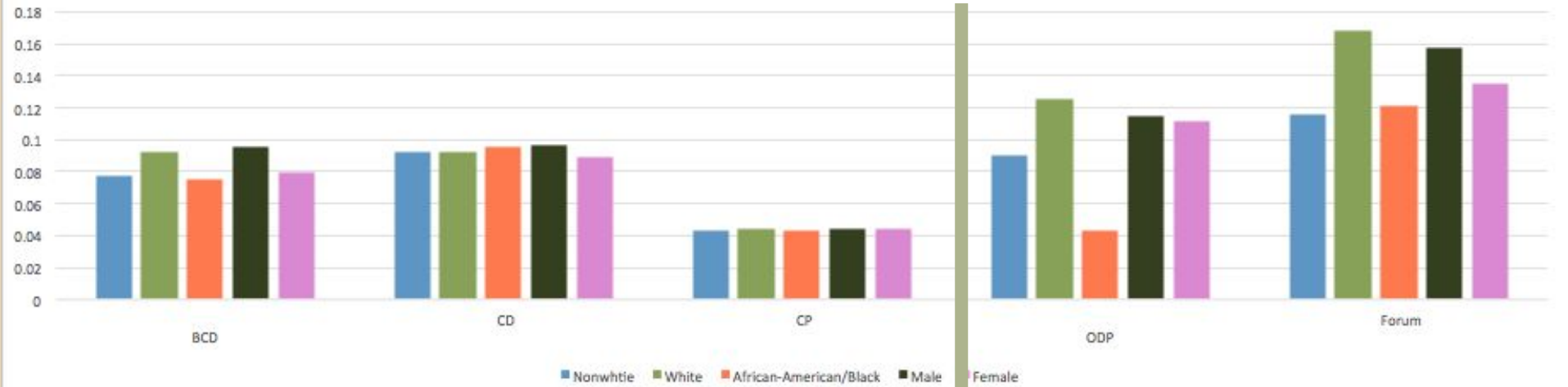
Findings

Participation: Online vs. F2F

- **Gender:** No consistent effects of online versus F2F EoP
- **Ethnicity:** Online settings appear to inhibit participation among black participants, while white participants participated more in online settings (even after adjusting for age and education)
- **Age:** Older participants appear to contribute relatively more online than F2F
- **Education:** Online environments do not appear to reduce EoP across levels

Findings

Average Volume of Contributions Across Methods



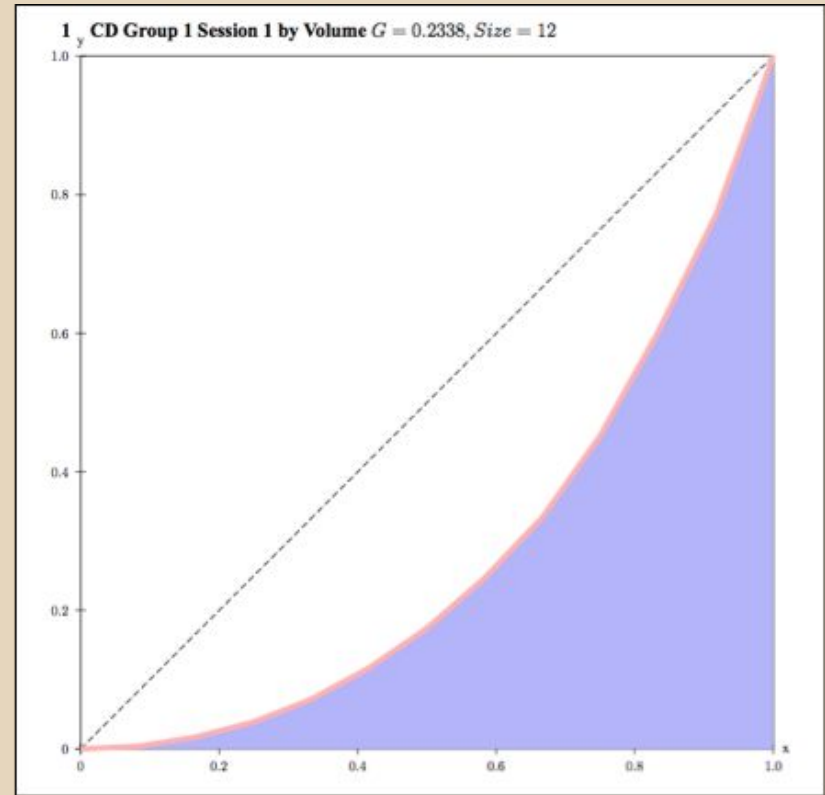
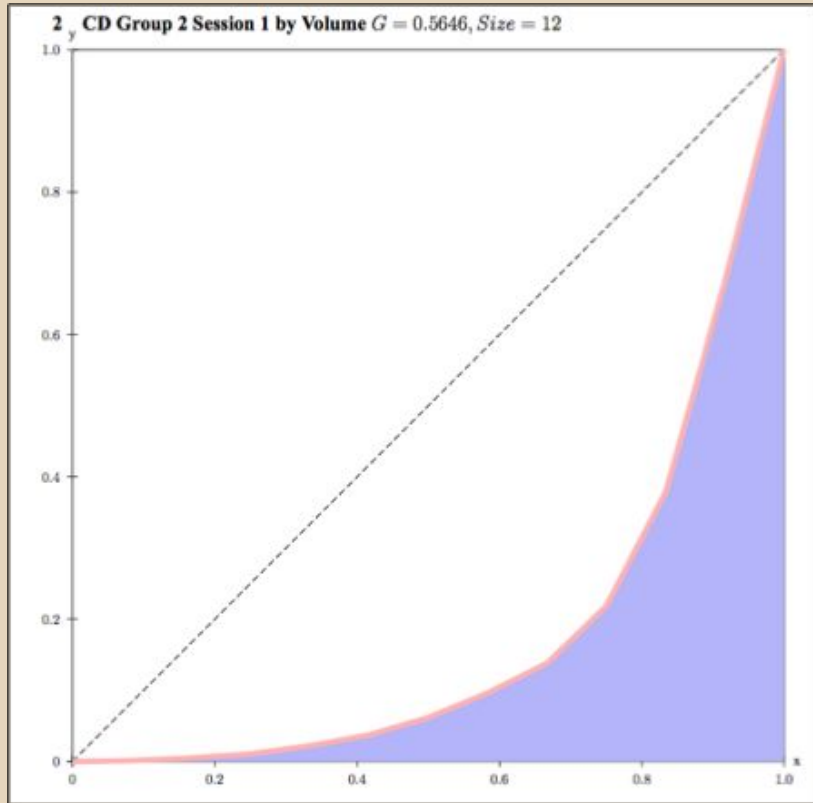
F2F

Online

EoP within each deliberative group

- Similar individual equality levels for ODP (synchronous voice) and face-to-face conditions as measured by Gini indices.
- Substantially more individual inequality in online message board versus F2F conditions.

Gini Indices



Group size vs. Gini Index

Figure 1: F2F Indices for Volume

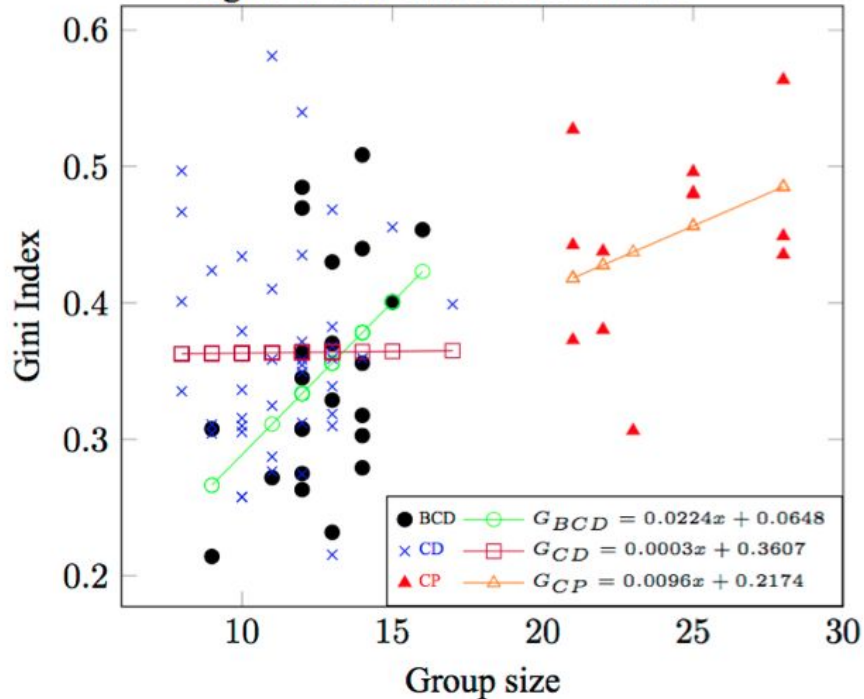
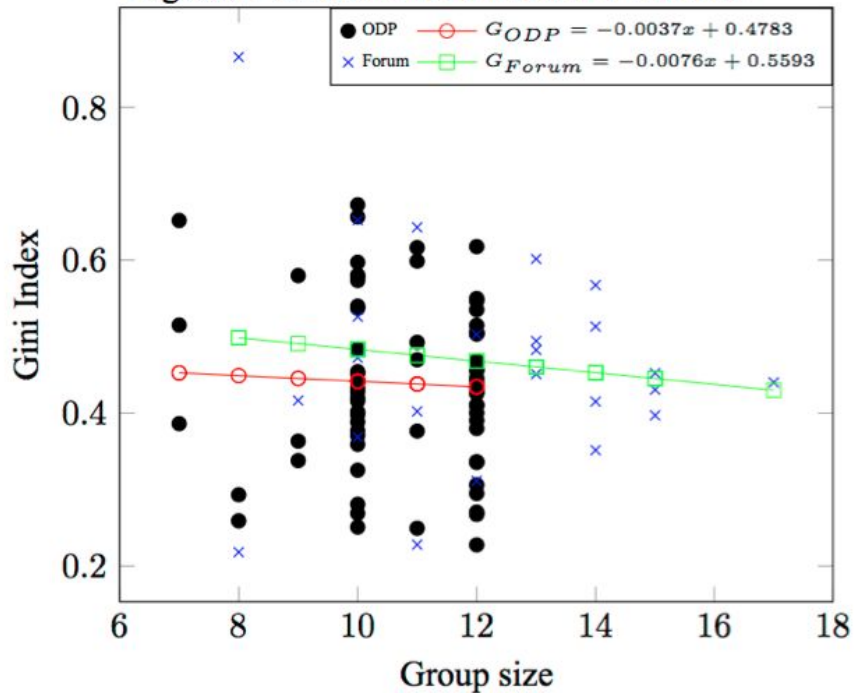


Figure 2: Online Gini Indices for Volume



Participation: Group size effects

- Online environments (ODP and CD-Deme) eliminated the group size amplification of inequality seen in BCD and CP methods

Online participation as predictor

- Deme forum posters in the CD method out-participated nonposters on all three contribution measures, indicating that the tendency for an individual to participate is correlated across online and F2F contexts.

Reported experience and equality

- Gini indices for frequency, volume, and ACL, as measures of individual-level EoP, were good predictors both of each other and of the subjective equality factor
- Black participants rated all but one of the methods more equal than did white participants, even when they participated less by volume than white identified participants did

Conclusion

Conclusion

- No negative effects of online modes on equality of participation (EoP) related to gender, age, or educational level.
- An asynchronous discussion board/forum appears to have improved EoP for gender relative to F2F discussion.
- The data suggest a dampening effect of online environments on black participants, as well as amplification for white participants.

Conclusion

- Other research suggests that facilitator can eliminate racial inequalities in participation.
- The online methods were lightly or not facilitated.

Future Work

Future Work

- Very large, rich, dataset.
- Facilitation styles and tradeoffs
- Understanding actual vs. perceived equality
- Turn taking
- Sentiment analysis
- More...

Thanks!

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