Equality of Participation: Online Versus Face to Face

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Electronic Participation: Proceedings of the 7th IFIP WG 8.5 International Conference, ePart 2015 (Thessaloniki, August 30-September 2)
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
Research Questions
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● 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

2. CD Group 2 Session 1 by Volume $G = 0.5646$, Size = 12

1. CD Group 1 Session 1 by Volume $G = 0.2338$, Size = 12
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

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

2. CD Group 2 Session 1 by Volume $G = 0.5646$, Size = 12

1. CD Group 1 Session 1 by Volume $G = 0.2338$, Size = 12
Group size vs. Gini Index
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
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- 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...
This research was supported by the Agency for Healthcare Research and Quality (AHRQ) under contract #HHSA290201000005C, through the American Institutes for Research (AIR), subcontract #641.02916, and by the Vice Provost for Undergraduate Research at Stanford. We thank American Institutes of Research Staff members Coretta Mallery, Rikki Mangrum, Maureen Maurer, Manshu Yang, and Mark Rosenberg for helpful discussions and aid in obtaining the data. The views expressed in this poster are those of the authors, and have not been approved by AHRQ or AIR.