# Deliberative Democracy with the Online Deliberation Platform

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## Abstract

We introduce the Stanford Online Deliberation Platform, a web-based platform that facilitates constructive discussions on civic issues with the use of an automated moderator. The automated moderator performs this function by stimulating participants to consider arguments from both sides of all proposals, maintaining civility in the discussion, encouraging equitable participation by all participants, and providing a structured collaboration phase for participants to come up with a small set of questions or action items. We will demo the functionality of this platform in the context of its primary intended application, that of online Deliberative Polling.

## 1  Introduction

While the Internet has revolutionized many aspects of human life, it has not been a positive force in large scale civic deliberation – in fact, open chat-groups and message boards often devolve into name calling and non-productive conversation. This societal problem serves as the broad motivation for the platform we wish to introduce. More specifically, the platform is meant to build upon Deliberative Polling (Fishkin 2011), a framework pioneered by the Stanford Center for Deliberative Democracy (Figure 1). This framework promotes substantive civic discourse and has had great success. However, it has been challenging to scale this approach to large online groups, the main difficulty being recruiting and training neutral moderators. Without moderation, the small group discussion could either splinter into smaller groups of like-minded individuals, or be dominated by a few loud individuals, or go off topic entirely. The Stanford Online Deliberation Platform intends to tackle this challenge by developing an automated moderator.

## 2  The deliberative polling process

In the current state of democracies, citizens often engage in tribalism, only speaking in echo-chambers with others of the same beliefs. This cycle results in most people never hearing alternate viewpoints and eventual deadlock (Fishkin 2018). The goal of deliberative polling is to provide citizens with an opportunity to consider and discuss difficult issues in an environment that facilitates informed deliberation. Participants are chosen by taking a random sample from society. An expert advisory committee creates an agenda for deliberation on a specific issue, along with briefing materials for



Figure 1: Deliberative Polling (DP) in Malawi. DP has been used over 100 times in over 70 countries, and is constitutionally mandated in Mongolia.

the participants containing information and arguments from all sides of the issue. Using these materials, the participants have an informed deliberation on a topic, during which they also collectively come up with questions for experts. In order to gauge the effectiveness of this process, they are polled before and after the deliberation. Together with a demographic survey, this provides insights into how the broader population would think about the issue if it had a chance to deliberate in the same fashion.

This form of deliberative polling has been conducted many times, and with various collaborators, over the past three decades. In many cases, it has resulted in significant policy changes (Fishkin 2018). As one example, a deliberative poll conducted in Texas in 1998 showed an increase in support for paying more in monthly utility bills for the support of renewable energy from 52% to 84%. Using these results, the Texas state legislature continued to make decisions that brought the state from last to first place in wind power in the US (Luskin, Fishkin, and Plane 1999).

## 3  The Online Deliberation Platform

The Stanford Online Deliberation Platform (Figure 2) looks superficially similar to other video chatting platforms, such as Google Hangouts and Skype. However, there are important differences. The platform includes an automated moderator "bot" which enforces a speaking queue: participants
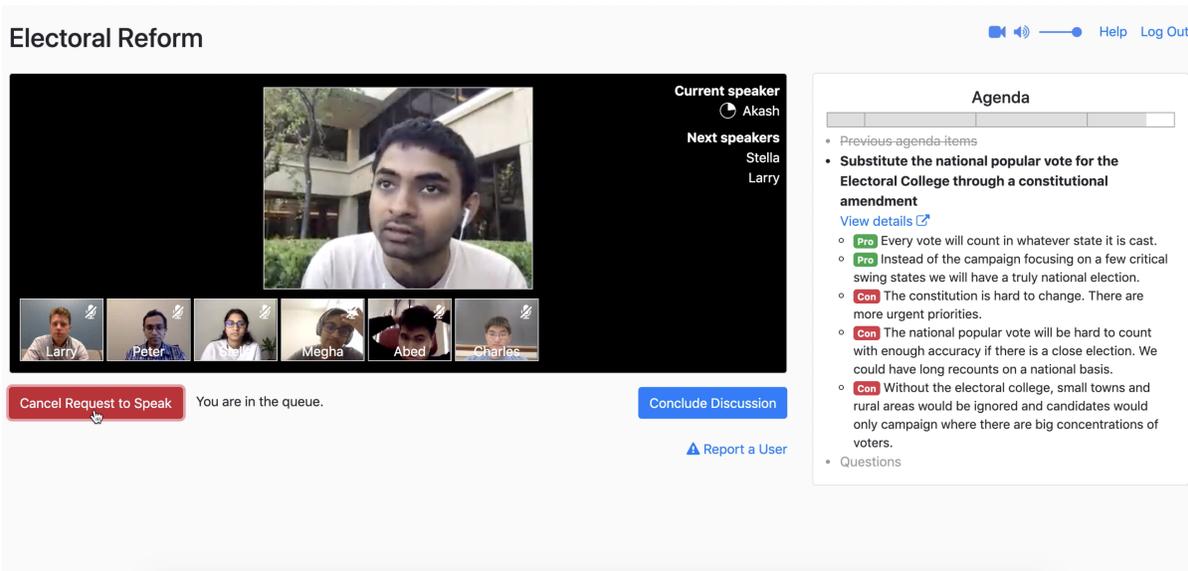
Figure 2: The Stanford Online Deliberation Platform. Note the queue with a timer, agenda management elements, and control elements for the participants to self-moderate.

must click a button to enter a queue to speak for a limited length of time or to briefly interrupt the current speaker. The platform also integrates an agenda, which the participants are encouraged to follow by means of nudges. The platform transcribes the active speaker in real-time and monitors for offensive content (both using an external API). If offensive content is detected, or the conversation seems stalled on an agenda item, the bot solicits feedback from the participants to decide whether to block a user or advance the agenda to the next item, respectively. There are several other subtle features to replicate the functionality of a human moderator. The bot also integrates a collaboration phase, where after the conversation, the participants collectively come up with a small number of questions or action items.

None of the mainstream consumer video-conference services provide enough fine grained control to build the kind of functionality we needed; hence, our moderator bot sits on top of a custom video-conferencing system that we built using Twilio's WebRTC-based APIs (Twilio Blog Post 2018).

## 4   The proposed demo

The demo will involve us setting multiple laptops at the conference venue. Participants will be able to observe or participate in an ongoing deliberation, and also observe or participate in a collaboration task. They will be able to experience what it feels like to be in a video-conferencing system that enforces a queue, much like Robert's Rules of Order. They will also be able to experience how the presence of a moderator bot alters their perception of norms of conduct, and how we trade off automated moderation with nudging participants to monitor group behavior, equitable speaking time, and agenda progress. We have provided a brief video as supplementary material to give the committee a flavor of what the demo will look like.

Our goal over the next year is to add more natural language processing (NLP) tools (e.g. automatic agenda management, automatic flagging of novel content, and automated relevance scoring of the arguments being made) to the platform. We would also like to improve the design and usability of this platform, and instrument the platform to measure the quality of the conversation. For NLP and usability, we would like to get feedback on which features to prioritize; for instrumentation, we are looking for advice on which metrics to measure and optimize against.

## References

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