PPOL 564 DS I Team 10

Team Charter

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# Overview

Amid the era where political polarization, far-right populism ethos and suppression of freedom of speech are echoing at global level. The public sphere for citizen participation of social discourse, rational debate, large-scale coordination are being significantly compromised. The failure of coordination mechanisms in both Western and Eastern, led to the shortage of public goods, fragmented civil society to promote real social interest, and the united voice against the authoritarian regime or the government dominated by the politicians representing profit-mongering interest groups. Therefore, this paper is based on Polis (add link)platform to research on the question how consensus can be involved through the innovative voting mechanisms, which aims to present participants with the most trivial concerns from the people outside of their echo chamber. By observing the collective voting behavior of the participants, this paper attempts to provide some insights on the effectiveness of Polis platform as a fundamental democratic innovation to reach large-scale agreement.

This paper contains 6 sections. The first section would discuss the motivation of this research from the perspective of the problems existing in current polling and public opinion aggregators’ role in safeguarding the public interest, and present some previous studies on Polis platform regarding the UberX issue, which this paper uses as a study case. The second section mainly reveals the data set this paper utilizes, including the data source, variable of interest, data wrangling process and data limitations and possible bias. The third section explains how this paper uses PCA and UMAP to visualize the participants' stance on a 2-dimensional map, uses Kmeans to cluster and classify group A and B, and uses centroid coords calculation to get the distance between two groups. The fourth section explains the result of the group informed consent, comments bring disputes and the result of UMAP and calculation, including tables and visualizations. The fifth section concludes the research result and discusses the limitations, future work and potential applications.

# Values

* Integrity: We value the academic standards.
* Transparency: We value the open conversation
* Novelty: We pursuit new discovery.

# Goals

Polls and probabilistic modeling results often serve as a reference of how people voting behavior in the final election. However, ‘horse race’ problem and misinterpretation of the model can distort the original intention of polls and voting, which should be a process to unite society and find common ground among different communities. Also, along with the rising of modern social media, echo chambers can be formed and intensify the polarization process. Therefore, rethinking the voting process and reorienting it to a mechanism is essential to embark on healing. This paper would discuss how the voting mechanism can be used to build consensus and lift the echo chamber. It will first plot time-series data to investigate the evolution of consensus on the opinion spectrum, before applying the UMAPs to explore the high-dimension characteristics and calculate the social distance, including the suggestion on the comment displaying algorithm. Also apply the NLP’s sentiment analysis technique to classify the emotion in the comment data.

# Expectations

* We expect all members to be fully involved
* We expect to learn new things
* We are aiming for the meaningful findings and social goods.