

UNDERSTANDING CITIZEN'S PREFERENCES DURING NETWORKED SOCIAL MOVEMENTS

Carlos Navarrete¹, César A. Hidalgo^{1,2,3}

¹Center for Collective Learning, Artificial and Natural Intelligence Institute (ANITI),
TSE, IRIT, University of Toulouse

²Alliance Manchester Business School, University of Manchester

³School of Engineering and Applied Sciences, Harvard University

ABSTRACT

Since the people of the Philippines ousted their president in 2001, political life has been increasingly characterized by networked social movements (NSMs). NSMs are citizen mobilizations coordinated through online platforms that tend to ignore political parties, distrust media, and reject formal leadership. But while there is a rich qualitative literature on networked social movements, and a rich quantitative literature on social choice theory, there has been comparatively little work trying to understand the policy preferences of citizens during active NSMs. Here we present data collected in two digital participation platforms in Chile and Lebanon during active NSMs. The data involves over 7 million pairwise preferences generated by more than 100,000 participants. We use this data to identify areas of agreement and disagreement and to test some key axiomatic properties of social choice theory.

We show that the preference rankings derived from this data were over 90% Condorcet efficient, 100% robust to the removal of any single alternative, and that measures of disagreement (divisiveness) are more robust to potential scenarios of the 'tyranny of the majority' than measures of agreement. We also find that measures of disagreement work better at identifying issues at the core of the conflict (e.g. a new constitution in Chile) than measures of consensus or agreement. Finally, we show that measures of disagreement are orthogonal to measures of agreement, suggesting that divisiveness is a novel form of aggregation that is key to understand citizen's preferences in electoral systems focused on multiple policy issues instead of a few candidates. These findings advance our understanding on how to create scalable participatory platforms to understand citizen preferences during networked social movements.

Keywords: network, social movement, citizen preference, social choice theory