Computational Social Choice: For the People

Abstract:

Computational social choice deals with algorithms for aggregating individual preferences or opinions towards collective decisions. AI researchers (including myself) have long argued that such algorithms could play a crucial role in the design and implementation of multiagent systems. However, in the last few years I have come to realize that the "killer app" of computational social choice is helping people -- not software agents -- make joint decisions. I will illustrate this theme through two recent endeavors: Spliddit.org, a website that offers provably fair solutions to everyday problems; and Robovote.org, which provides optimization-driven voting methods.

Throughout the talk, I will devote special attention to the theoretical foundations and results that make these services possible.