Approximately Classic Judgment Aggregation

Ilan Nehama
Bar-Ilan University

Abstract

In this work, I analyze judgment aggregation problems in which a group of agents independently votes on a set of complex propositions subject to an interdependency constraint.

This work considers the issue of judgment aggregation from the perspective of approximation; that is, it generalizes the classic framework of judgment aggregation by relaxing the two main constraints assumed in the literature, consistency and independence.

In doing so, it also considers mechanisms that only approximately satisfy these constraints, that is, satisfy them up to a small fraction of the inputs. The main question raised is whether the relaxation of these constraints significantly alters the class of aggregation mechanisms that meet the two (relaxed) constraints.

In this talk, I plan to present the research agenda, the motivation, and connections to works on the approximation of preference aggregation. I will also present a few results and questions I have in this research agenda, both published ones and work in progress.

This talk does not assume prior knowledge of judgment aggregation, and in particular, I plan to include a fast introduction to this recent field which generalizes classic questions in Social Choice.