

majority illusions in social networks

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Abstract

The popularity of an opinion in one's direct circles is not necessarily a good indicator of its popularity in one's entire community. For instance, when confronted with a majority of opposing opinions in one's circles, one might get the impression that one belongs to a minority. From this perspective, network structure makes local information about global properties of the group potentially inaccurate. However, the way a social network is wired also determines what kind of information distortion can actually occur. In this talk, I will discuss which classes of networks allow for large groups of agents to have a wrong impression about the distribution of opinions in the network. We focus on the case where agents are wrong about the majority opinion, that is, they are under 'majority illusion', and generalize to other types of illusions. This is joint work with Maaïke Venema-Los and Davide Grossi.

About the Speaker

Zoé Christoff is an assistant professor in artificial intelligence at the Bernoulli Institute for Mathematics, Computer Science & AI, University of Groningen. Her research focuses on collective intelligence: what makes groups of agents act smart (or dumb) together. She applies formal tools (from logic, graph theory, social network analysis, and social choice theory) to shed light on the mechanisms and limits underlying social network phenomena, opinion formation, and collective decision making. She is a Rosalind Franklin Fellow as well as the recipient of a Dutch Research Council (NWO) VENI grant for her research project "Democracy on Social Networks". Prior to her position in Groningen, she was first a member of the Computer Science department of the University of Liverpool and then of the Philosophy department at the University of Bayreuth. She obtained her PhD in logic in 2016 at the institute for Logic, Language and Computation (ILLC), University of Amsterdam, and her MA in philosophy at the University of Geneva. She regularly teaches courses in ethics of AI, epistemic logic, and collective intelligence.

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