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Title:	Influencing Opinion Dynamics in Networks with Limited Interaction
Authors:	Sahasrabudhe, Neeraja (/jspui/browse?type=author&value=Sahasrabudhe%2C+Neeraja)
Keywords:	Opinion Dynamics Voter Model Random Graphs Stochastic Approximation
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Citation:	IFAC-PapersOnLine, 54(9), 684–689.
Abstract:	The focus of this work is on designing influencing strategies to shape the collective opinion of a network of individuals. We consider a variant of the voter model where opinions evolve in one of two ways. In the absence of external influence, opinions evolve via interactions between individuals in the network, while, in the presence of external influence, opinions shift in the direction preferred by the influencer. We focus on a finite time-horizon and an influencing strategy is characterized by when it exerts influence in this time-horizon given its budget constraints. Prior work on this opinion dynamics model assumes that individuals take into account the opinion of all individuals in the network. We generalize this and consider the setting where the opinion evolution of an individual depends on a limited collection of opinions from the network. We characterize the nature of optimal influencing strategies as a function of the way in which this collection of opinions is formed.
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