

# Coarse targeting in social networks

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Extended abstract

## Abstract

We study how a planner can optimally counter misinformation in a social network under *coarse targeting*: she broadcasts the same message to all agents, but chooses their exposure levels. Before messaging begins, the planner chooses a vector of target weights that determine how much each agent is exposed to her message, in order to maximize total discounted utility. Optimal targeting depends jointly on the network structure and the distribution of initial opinions. Counterintuitively, agents with extreme views may sometimes receive *less* exposure. In stylized opinion-leader networks, optimal weights align with authority centrality. But centrality alone is also not sufficient: in symmetric networks, targeting is uniform only when initial opinions are. More generally, optimal weights reflect persistent local opinion dispersion among subsets of agents, which slows opinion convergence. We illustrate the model using U.S. Facebook friendship data and climate change opinions: the planner over-targets Texas and under-targets California, despite their similar centrality—underscoring how local disagreements shape optimal targeting.

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