
Cheap Talk Games: Application in Federated Learning and Smart grids

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Résumé

We propose new strategic information transmission schemes for two distinct frameworks: Federated Learning and Smart Grid communication. Our study examines communication dynamics between a Sender and a Receiver, focusing on the incentives for senders to transmit limited or noisy information. In the context of Federated Learning, our analysis reveals that training parties have a strategic incentive to introduce noise into their models before sharing them with the central aggregator. For the Smart Grid, we design a communication scheme that enhances the reliability of information exchange between consumers and aggregators.

Mots-Clés: Signaling games, Cheap talk, Game theory, Federated Learning, Smart Grid

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