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Objective/Background/Motivation:

- Economic modelling is often inaccurate because not all consumers and producers act in a rational way
 - Irrational choice, limited selfishness, societal impact and cognitive biases - prevent true insight into true human behavior
- Poor economic decisions can lead to recessions, such as the 2007 Financial Crisis
- AI can make better decisions as humans can only do so much

Existing Solution:

- AI Economist is a 2-level deep RL framework
 - Uses a simulation called Gather-Trade build which has multiple economic agents trading between each other, taxation and a planner (government-like entity)
- RL learns the behaviour of each agent
 - Curriculum learning is used to easier problems, and entropy regularisation adds randomness

Your Solution:

- Modelling humans needs to consider the basis for all social connections, which is language
- Cognitive linguistic modeling of Microsoft TextWorld for AGIs, Q-learning and agents
- Combining with DSGE (Dynamic stochastic general equilibrium), a macroeconomic analytical method which explains historical data, is elegant
 - Instead of using the tool to model self contained AGIs, much better use of lingual interface to model all forms of social influence and persuasion
 - Firms spend a lot of resources on marketing for a reason!

Resources needed:

- None at the moment