NLP27 Social Dynamic Simulations with Multi-Agent LLM Systems

Background

In the past, simulating social dynamics in multi-agent systems was limited to simple rules and environments. Advances in AI now enable modeling of more complex social scenarios, from basic social media simulations (e.g., S3) to advanced frameworks like Generative Agents, where agents interact with both each other and their environment. These simulations can cover scenarios like economic systems, social interactions, and crisis management, offering insights that could inform real-world decisions in policy, economics, and crisis response.

Goal

- Review methodologies used for simulating social dynamics in multi-agent systems and analyze their capabilities, limitations, and potential for future development.

Tasks

- Review recent literature on social dynamics in multi-agent systems.

- Evaluate strengths and weaknesses of different simulation approaches.

- Identify research gaps and potential uses of video game environments for simulating social dynamics.

- Explore pre-LLM approaches and assess their potential for integration with modern LLM-based systems.

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