

BROWNBAG SEMINAR

The Emergence of Economic Rationality of GPT

By Professor CHEN Yiting (Assistant Professor, Department of Economics)

Abstract:

As large language models (LLMs) like GPT become increasingly prevalent, it is essential that we assess their capabilities beyond language processing. This paper examines the economic rationality of GPT by instructing it to make budgetary decisions in four domains: risk, time, social, and food preferences. We measure economic rationality by assessing the consistency of GPT's decisions with utility maximization in classic revealed preference theory. We find that GPT's decisions are largely rational in each domain and demonstrate higher rationality score than those of human subjects in a parallel experiment and in the literature. Moreover, the estimated preference parameters of GPT are slightly different from human subjects and exhibit a lower degree of heterogeneity. We also find that the rationality scores are robust to the degree of randomness and demographic settings such as age and gender, but are sensitive to contexts based on the language frames of the choice situations. These results suggest the potential of LLMs to make good decisions and the need to further understand their capabilities, limitations, and underlying mechanisms.



Biography:

Professor CHEN Yiting joined Lingnan University as an assistant professor in economics since August 2023. Prior to that, she worked in Xiamen University as an assistant professor in economics. She received her Ph.D. in economics from the National University of Singapore on May 2022. Her research interests are decision making under uncertainty and moral behavior, and more generally behavioral and experimental economics.

Welcome to join!

Date: 18 October 2023 (Wednesday)

Time: 12:00 - 13:00

Venue: LYH309, 3/F, Lau Lee Yuen Haan Amenities Building, Lingnan University

Register Here:

