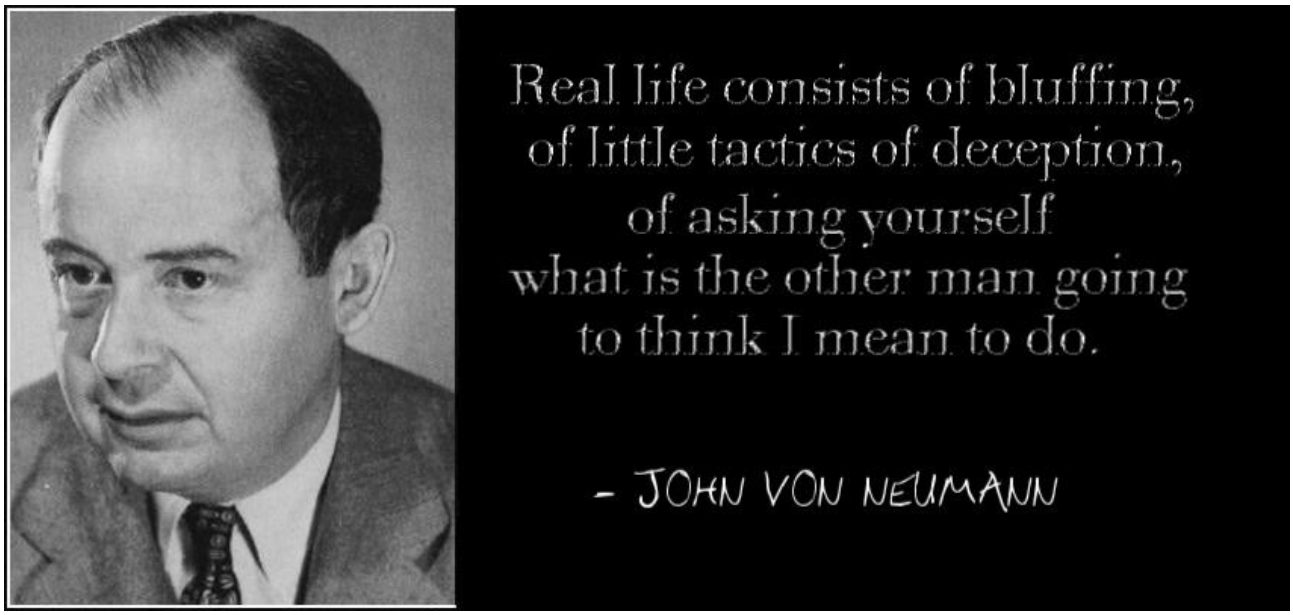
Artificial Intelligence in Games

Games are serious business

Don’t let the name fool you, “games” provide a general mathematical model that describes how decision-makers interact. **Game theory** is the study of strategic interaction between rational decision-makers. It has applications in all fields of social science, as well as in logic and computer science.

Game theory did not really exist as a unique field until John von Neumann published the paper *On the Theory of Games of Strategy* in 1928. He classified games into two models: perfect information games and imperfect information games.

AI research has a long history of using parlour games to study these models, with attention primarily on perfect information games, like checkers, chess or go. Although these games provide immense insight into how human minds work. They are far less common in the real world decision-making settings.



Von Neumann’s statement hints at the quintessential game of imperfect information : the game of Poker (where you and your opponent hold information that each other doesn't have (your cards))

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