Game Theory & Multi-Agent Environments

- **Multi-Agent Perspectives:** There are different ways to view multi-agent environments.
    - **Economic View:** When dealing with numerous agents, consider them as an economy to predict aggregate behavior (e.g., price changes due to demand) without needing to analyze individual actions.
    - **Adversarial View:** Treat opposing agents as part of a non-deterministic environment, but with the key distinction that they actively attempt to defeat you, unlike passive environmental factors.

- **Evaluating Game States:**
    - To determine who is winning at a given point, you can use a heuristic evaluation function (to estimate the winning side based on state features).
    - Alternatively, you can average the results of multiple quick simulations from that state to the game's conclusion.

- **Game Complexity:** The document addresses games with elements of chance, like rolling dice or shuffling cards, as well as games with imperfect information, where players don't have complete knowledge (e.g., poker, bridge).

- **Players:** In the context of game theory, the players are referred to as MAX and MIN.