Multi-Agent Collaboration in Games:
A Study of Solutions to Achieve Coordinated Behaviour

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Abstract

Expectations for the behaviour of artificial characters and bots in games continue to grow as new techniques and capabilities for AI emerge. The challenges for designing and implementing collaborative behaviour for agents can differ greatly from those found for individualistic behaviour. This research examines five tasks in achieving coordinated agent behaviour: movement, communication, decision-making, learning, and player interaction. For each task, we present associated challenges and solutions using examples found in game AI research and released game titles.

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