Developing Intelligent Negotiation System

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Abstract

Negotiation has become an important aspect of our daily lives. Humans negotiate over a phone, face to face meeting and verbal and non-verbal activities. With the advent of intelligence system research, the requirement of efficient negotiation system became a prime issue. It has a number of applications including collaborating cyber human interaction, e-commerce negotiation and intelligent shared behavior study. Adapting game theory of mind concept in intelligent negotiation protocol implementation may make the future cyber system robust, social and adaptive. Keeping in mind the user's policies and an intention to gain the maximum profit, we introduced the hybrid negotiation system to make a system robust and more useful. User's intention to gain the maximum profit is considered important to figure out the opponent's policies so that the system can make a right automatic decision. Based on our initial literature review, game theory of mind can be a good choice in sub-optimal intelligent negotiation system design. Therefore, a system based on game theory of mind is under design process that is being evaluated on Yahoo marketing data set.

Keyword: Game Theory, Theory of Mind, Intelligent systems.