**عنوان مقاله:**

Trust Modeling Based on Friendship and Similarity of Agents

**نویسندگان:**

Kamal Mirzaie - *Department of Computer Engineering, Maybod Branch, Islamic Azad University, Maybod, Yazd, Iran*

Mehdi N. Fesharaki

**خلاصه مقاله:**

Trust is an important research topic in many fields including economics, business, AI, and IT. As a complex concept with different definitions, trust is the root of almost any personal interaction. An agent does not usually have direct access to the mental state of other agents, hence we need models of trust that determine where the agents can be trusted or not. In this paper, we have proposed trust model based on friendship and similarity. Every agent in this model has properties such as personality, responsibility, and specialty. Dynamic trust is made up of agents' properties and interaction between them that are essential for trust making. A general process for decision making, OODA is used for updating the trust. Each agent in this process observes the environment (Observe) and makes knowledge from the observation (Orient). Decision-making is based on knowledge (Decide), and finally this decision is executed (Act). These four are the main stages of the simulation cycle of the proposed model. In the first stage, agents' properties and interactions are initialized. The second stage provides essential knowledge for trust and the output of this stage is computed trust. In the third stage, the computed trust is compared with the trust threshold. If computed trust is greater than the threshold, agent might trust a given agent. Finally, in the fourth stage, trust value is updated based on the performance of trusted agents. These four stages are repeated and the dynamic trust is updated at the simulation run

**کلمات کلیدی:**

Trust, MAS, OODA, Friendship, Similarity

**لینک ثابت مقاله در پایگاه سیویلیکا:**

https://civilica.com/doc/157457