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Intelligent negotiation model for ubiquitous group decision scenarios

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Motivation/Main ideas

➢ Motivation

•The existing negotiation models are barely adaptable to the business world reality, have difficulty in reflecting the decision-making natural process, and create a certain discomfort in their use by decision-makers.

•The actual evaluation of the argumentation models is not the one an organization would want to use.

•The existing argumentation approaches are not oriented to problems that include multiple agents interacting simultaneously.

➢ Main Ideas

•Support the ubiquitous group decision-making process similarly to a real process, which simultaneously preserves the amount and quality of intelligence generated in face-to-face meetings and is adapted to be used in a ubiquitous context.

•Deal with intelligence because agents have the possibility to maintain a dialogue about the topic, expressing their opinions, and gather information of what they “heard”.

Proposed model

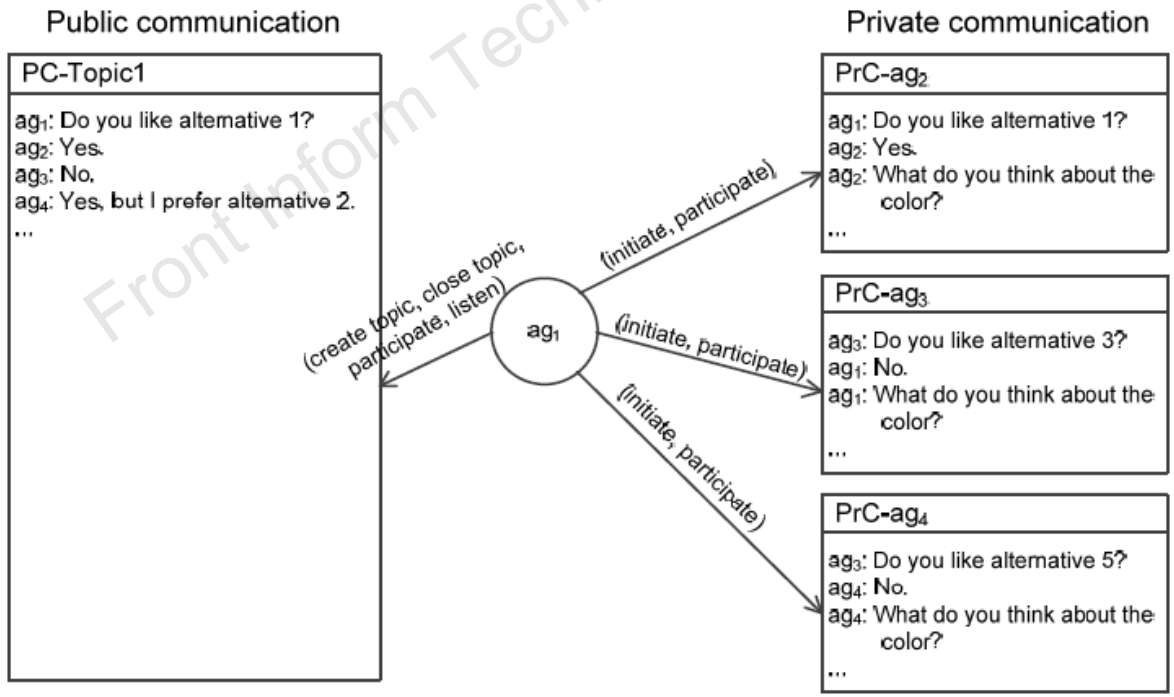
•Specifically designed to handle multi-criterion problems

•Main entities: Real Participant, Facilitator, Participating Agent

•Agents are both collaborative and competitive.

•Include two main types of communication inspired by the logic used in Social Networks:

- Public Communication - PC.
- Private Communication - PrC



Conclusions

- Existing group decision support systems are very limited especially in situations with time/space constraints.
- These systems have many validation/evaluation problems.
- Ubiquitous group decision support systems (UbiGDSS) provide answers to some of these issues.
- A negotiation model was proposed specifically planned for UbiGDSS that uses Social Network Logic and supports the decision-making process, in a similar way to a real process, while simultaneously preserving the quantity and quality of intelligence generated in face-to-face meetings