‘Virtual Moderator’ helps reach consensus in troubled negotiations

A group of researchers have designed a new fuzzy ontology-based system to help people in disagreement reach consensus.

This system, which acts as a virtual moderator, is a step forward in the field on Artificial Intelligence. This tool can be useful in making everyday decisions—such as choosing a wine in a restaurant—, but it can also be helpful in complex negotiations between countries fighting for their interests in the European Union framework. Fuzzy ontologies represent the relationships among basic concepts. This new system uses ontology to help in the decision-making process by acting as a virtual moderator trying to bridge positions among the different parts in a negotiation.
Figure: New consensus-reaching process based on fuzzy ontology

The authors of this study are Ignacio Javier Pérez and Enrique Herrera Viedma, researchers at the SECABA laboratory of the University of Granada, in collaboration with researchers at the Institute for Advanced Management Systems Research (IAMSR) of the Abo Akademi, Finland.

According to the University of Granada professor, Enrique Herrera Viedma, principal investigator of the study, “ontology represents a large amount of information that can be used by a virtual moderator to exert influence on negotiators and help reach consensus”.

Accordingly, the University of Granada research groups on decision-making processes and virtual moderators and the Abo Akademi research groups on ontology and knowledge representation “have joined to design a new tool which is a step forward in the field of decision making and poses new challenges to Applied Artificial Intelligence”, professor Viedma states.

The results of this study were recently published in the journal Soft Computing.

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