

The fifth NorMAS workshop shows the breadth of the research area, ranging from virtual organizations, formal models and simulation studies to gaming agents and social psychology.

In “Contract argumentation in virtual organizations”, Criado, Heras, Argente, and Julian propose a novel dialogue game protocol combined with argumentation schemes for contract agreement within dynamic organizations controlled by norms to enable these virtual organizations to evolve over time using norm adaptation.

Burgemeestre, Hulstijn and Tan address a similar issue, that of open norms. In “Norm emergence in regulatory compliance” they discuss how norms can be discussed and interpreted, resulting in a norm emergence process. A case study of adoption of Authorized Economic Operator legislation in the EU customs domain is presented resulting in two observations: (1) norm adoption is guided in a top-down fashion, by EU guidelines and auditing standards, and (2) consensus about what counts as acceptable is reached by interaction among companies, consultants, and auditors. To explain the norm emergence process the authors state that two kinds of theories need be combined: (i) theories about the specification, prescription and implementation of norms (one-to-many, top-down), and (ii) theories about norm adoption, consensus reaching and norm distribution (many-to-many, bottom-up).

In “Non-taking up as a normative behavior”, Saillard uses normative multiagent systems to describe and analyze why individuals abstain from exercising their (social) rights. Components of the analysis include the autonomy of the agents, their cognitive activity and the progressive construction of effective social rights.

Mahmoud, Griffiths, Keppens and Luck present an empirical analysis of Axelrod’s model of norms and meta-norms which enables norm establishment in populations of self-interested individuals. In their paper “An analysis of norm emergence in Axelrod’s model” they explore some of the key assumptions made in previous evaluations of the model. These include the dynamics of norm emergence and the occurrence of norm collapse when applying the model over extended durations. They also investigate in detail the reasons for norm collapse in extended applications of the model to show that both the level of mutation in the population and the precise nature of the reproduction mechanism are significant.

In “Modelling the social fabric for normative NPCs in MMOGs”, Johansson and Verhagen sketch the requirements for believable agents or “NPCs” in multiplayer online games. Current agents lack flexibility and learning on the social level and the authors state that to develop the next generation of “smart” NPCs assistance is needed from the NorMAS community to provide formal models of and reasoning mechanisms for normative agents in MMOGs, combined with theories and models from the social sciences.

Finally, invited speaker Corinna Elsenbroich presents “The Uniqueness of normative behaviour”. Observing that normative behaviour has been one of the earliest topics investigated by agent-based models, she finds that many of the very early models are extremely simple and is amazed how much the aggregate behaviour of these simple models resembles actual normative behaviour outcomes.

But many factors unique to normative behaviour have not been captured yet and by presenting normative behaviour from a social psychology view she offers a solution to part of these missing issues. An integration of some cognitive capacities, such as reasoning about values, would bring NorMAS research a long way towards capturing the unique features of normative behaviour.

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