

COST STSM Report

COST Application #: STMS-AT-72

July 2009

1 Purpose of the Visit

The purpose of the visit was to interact with the ISTC-CNR group in Rome, present our latest research on trust and reputation in distributed open systems, and discuss our plan for future work with them. Given the group's expertise in the theories of trust, its complexities, and its socio-cognitive perspective, we thought such collaboration and interaction would be hugely beneficial for our work.

2 Results of the Visit

The visit's duration was from the 9th till the 30th of July, 2009. During this visit, Cristiano Castelfranchi was the main host; however, the main interaction was with Rino Falcone and Rosaria Conte. The results of the visit may be divided into two main contributions to our work.

First, the concept of self assessment has been raised. This highlights the concept that trust is not only computed to help agents select other agents or items, but also to compute their own trust measure, or trust capital. Computing one's own trust capital could be useful for agents in planning their strategies and next moves to help them achieve their goals. The idea is that a list of strategies may be outlined based on a formal definition of the trust capital measure. This list of strategies can then be used to outline possible attacks. We plan to continue this line of work with the aim of addressing the issues of attacks detection and avoidance.

Second, the theories behind rater's intentions and strategies were raised. Discussions have focused on the effect of the overlap of roles on the raters' strategies of rating. For example, will one rate another in a different way if it knows that the other might also leave a rating? The issue of the effect of the rating model on a rater's strategy has also been raised. For example, in the common publications world, do all ratings (or reviews) always converge to a common value? Data mining and simulation might be needed to address these questions. However, we are still investigating the possibility of getting access to enough existing data in order to perform such an analysis.