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Applicant

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Host Institution

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(Prof. Sascha Ossowski)**

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Work Plan Summary

The visit concerned getting acquainted with the research done at the Artificial Intelligence group (University Rey Juan Carlos) on normative multi-agent systems and computational trust.

A main goal was to contact local researchers and find possible research connections with our own research on normative multi-agent systems, B2B Electronic Institutions, and trust and reputation.

Activities

While visiting the GIA-URJC, I was able to become aware of the research done in this group in two main research topics: normative systems and computational trust.

During my short stay I had a chance to give a talk regarding research at LIACC-NIAD&R in the Electronic Institution Platform project, including automatic negotiation, ontology alignment, normative environments, and computational trust. I have focused mainly in my work on normative frameworks for e-contracting, touching also interconnections with computational

trust mechanisms. A fruitful discussion has followed, with Holger Billhardt, Ramón Hermoso, Alberto Fernández, Zijie Cong (Cliff), Roberto Centeno, Rubén Ortiz, Javier Durán, Levan Uridia, among others. Some possible connections among the work of both research groups were identified.

Regarding normative reasoning, the work by Moser Fagundes on agent architectures for reasoning about norm compliance seemed particularly relevant. Also, the work by Roberto Centeno on incentives for desirable behavior seems to be an interesting approach to obtain a model for social control in agent societies. Both these research lines seem to connect well with our current research efforts at LIACC-NIAD&R concerning the issues of adaptive normative environments and normative reasoning in business scenarios.

As for computational trust models, the work by Ramón Hermoso, namely his PhD thesis, is quite interesting, focusing on a role specialization mechanism that is able to create roles at run-time based on clustering techniques, allowing agents to better select partners to whom to delegate tasks. We have discussed the possibility of applying some of these ideas to the problem of finding the most appropriate set of norms that is able to govern a particular joint action between a group of agents.

Since a main goal of this visit was to find possible research collaboration, Ramón Hermoso and I, with an incentive from Holger Billhardt, have discussed the possibility of applying for the “Acções Integradas Luso-Espanholas – 2012” program, which has an open call and is a joint Portuguese-Spanish program for promoting research collaboration between researchers of both countries. We decided to start working on it in order to prepare a submission during the month of May. In case of acceptance, the research collaboration will be effective during 2012-2013.

Porto, May 9th 2011