

Social Relationships and Organizations (Area 2)

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Summary

- ▷ What the **Social Relationships and Organizations** area is about
- ▷ How ILIKS members are involved in this area

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- Sample joint work: “*Delegation and Mental States*”, presented by **Nicolas Troquard** (joint work with Emiliano Lorini, Andreas Herzig and Cristiano Castelfranchi)

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- ▷ Two general topics for possible collaborations

The social dimension

- ▷ Collectives/Groups of agents
 - *Interpersonal dimension*
 - mutual beliefs
 - trust
 - dependencies . . .
 - *Emergent dimension*
 - collective intentionalities
 - collective actions
 - collective acceptances
 - rules and conventions . . .

The institutional dimension

▷ Organizations/Institutions

- *Normative/Deontic dimension*
[rules that influence agents' interaction]
 - rights
 - obligations
 - powers ...
- *Constitutive dimension*
 - rules that create a new level of entities (actions, roles, etc.)
- *Coordinative dimension*
 - artifacts structuring interaction to coordinate collectives

A multidisciplinary domain

- ▷ *Different disciplines involved* (cognitive science, computer science, economics, linguistic, mathematics, philosophy, sociology)
- ▷ *Goals*
 - Fundamental/Theoretical
 - Practical/Applicative
- ▷ *Methods*
 - (A) Analytical (pre-formal)
 - (F) Formal/Logical
 - (I) Implementation/Application oriented

- ▷ Mental dimension of the collectives
 - collective intentionality (IRIT-LILaC, ISTC- $\{IAMCI, LOA, T3\}$ [A/F])
 - mutual and group beliefs
 - group preferences
 - trust and delegation
(ISTC- $\{IAMCI, T3\}$, IRIT-LILaC, UNITN-DIT [A/F])

▷ Social/Normative dimension

- power and control (ISTC- $\{\text{IAMCI}, \text{T3}\}$ [A/F], UNITN-DIT [I/F])
- dependence and autonomy (ISTC- $\{\text{IAMCI}, \text{T3}\}$, UNITN-DIT [A/F])
- ownership (UNITN-DIT [I/F])
- mental counterpart of norms/org. (ISTC- $\{\text{IAMCI}, \text{T3}\}$ [A/F])
- deontic (+temporal) logics (IRIT- $\{\text{ACADIE}, \text{LILaC}\}$ [F])
- impact of technology and knowledge management in the organizational choices and structure (UNITN-DISA [A])

Different Focus

(3/3)

- ▷ Ontological nature of organizations
(ISTC- $\{IAMCI,LOA,T3\}$ [A/F])
- ▷ Organization modeling and analysis (UNITN-DIT, ISTC-LOA [I/F])
 - security analysis (UNITN-DIT, ISTC-LOA, IRIT-ACADIE [I/F])
 - risk analysis (UNITN-DIT [I])
- ▷ Organization design and design analysis
(UNITN-DIT, ISTC- $\{IAMCI,LOA,T3\}$ [I/F])

Common projects

- ▷ **MOSTRO: MO**delling **S**ecurity and **T**rust **R**elationships within **O**rganizations.

(ISTC-LOA, UNITN-DIT, IRIT-LILaC)

Aim. The development of a well founded ontology and of a methodology (based on that ontology) for modelling organizations with special emphasis to relationships among agents.

- ▷ **ForTrust: Social Trust Analysis and Formalization.**

(IRIT-LILaC, ISTC-IAMCI+T3)

Aim. To provide an in-depth logical formalization of the concept of trust together with the implementation of a reputation-based platform for the interaction between intelligent agents.

Can the social and the institutional dimension be linked?

Even if it is possible to conceive

- the **social/emergent** dimension (allowing for tacit and/or *implicit* forms of interaction)

as conceptually different from

- the **institutional/normative** dimension (laws, contracts, companies and all the entities that are *explicitly* introduced)

they are linked.

How the social affects the institutional?

- ▷ Collective intentionality and organizations
- ▷ We attitudes, group preferences and deontic logic
- ▷ Trust, delegation and organizations

How the institutional affects the social?

- ▷ Organizations as designed (and “imposed” as) coordination artifacts
- ▷ Power and Social Control
- ▷ Social/individual impact of institutional/normative systems (impact of norms on cognitive processes)

What about the dynamics?

- ▷ Normally the institutional dimension seems more *stable* than the personal/social one
- ▷ But, norms and organizations can evolve too
 - meta-norms (difficulty of having to manage object- and meta-level at the same time)
 - impact of the use of technology in the evolution/change of organizations
 - ...