The obtained results are on par with a baseline of state-of-the-art alignment repair algorithms and agents towards successful communication through improving the objective correctness of alignments. For that purpose, we performed experiments in which agents react to mistakes in alignments. Agents only know about their ontologies and alignments with others and they act in a fully decentralised way. We showed that this cultural repair approach is able to converge towards successful communication through improving the objective correctness of alignments. The obtained results are on par with a baseline of state-of-the-art alignment repair algorithms and agents.
can start with empty knowledge at first.

This is part of an ambitious program towards what we call cultural knowledge evolution. Many aspects of these experiments may be systematically developed. For instance, we may have agents arbitrate between maintaining alignments or adopting the ontologies of other agents. We may have agents choosing among several repair operators. We may want to change the environment in which agents live so that they have to evolve their ontologies. We may want to have homogeneous populations of agents to encounter other populations.

The main goal of the position is to contribute experimenting with cultural evolution techniques in the context of distributed knowledge representation. In particular, two main lines of actions will be performed by the successful candidate:

- Helping us to develop a cultural knowledge evolution workbench offering facilities for recording, replaying, reproducing and tracking experiments.
- Designing and performing experiments with cultural knowledge evolution. We are in particular interested in studying the creation, evolution and persistence of techniques used by agents for dealing with different representations (like people dealing with different language levels) and the co-evolution or confrontation of different homogeneous populations.

References:


Links:

Exmo web site: http://exmo.inria.fr
Lazy lavender: http://lazylav.gforge.inria.fr
This topic: http://moex.inria.fr/training/2018-PD-ecke.html

Main activities

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Skills

- Interaction with other researchers.
- Willingness to tackle new and challenging problems.
- Experimentation skills.
- Programming skills.
- Autonomous researcher.

Benefits package

- Subsidised catering service
- Partially-reimbursed public transport
- Social security
- Paid leave
- Flexible working hours
- Sports facilities

Remuneration

Gross salary: 2650 Euros per month