PhD fellowship

Towards a Computational Model of Social Skills for Human-Computer Interaction

Aix-Marseille Université & CNRS

>>> Deadline for application: **April 9th, 2018**

The goal of this project is to develop a computational model of social skills for multimodal interaction systems. The model will focus more precisely on a specific context, task oriented dialogues, in which all semantic and pragmatic aspects are controlled. It will be built by means on different machine learning methodologies applied to the analysis of natural corpora. This work will be part of an ongoing project (http://www.lpl-aix.fr/~acorformed/), aiming at developing a virtual reality system for training doctors to break bad news, with an embodied conversational agent playing the role of a virtual patient.

The PhD is organized around 4 main tasks:

- Describing the social skills relevant to the use case, with a specific focus on empathy and persuasion, through a corpus analysis. This task is done in collaboration with doctors involved in such training activities.
- Modeling the social skills, by means of machine learning techniques
- Implementing the social skills in the communication environment
- Developing a tool for the automatic evaluation of doctor's skills, adapted to the training goals

The PhD candidate should have a master's degree completed in one of the fields below:

- Computer science
- Artificial Intelligence
- Natural language processing
- Applied mathematics

The candidate should have a strong background in machine learning and modeling methods. Some complementary previous experience would be appreciated in the following topics:

- Human-computer interaction
- Multimodal data processing
- Data acquisition
- Corpus-based studies

- Affective computing
- Conversational agents

This fellowship is part of the Marie Skłodowska-Curie COFUND action. It is a three-year work contract, with a monthly net salary of approximately 1625€/month, a 500€ travel allowance per year between Marseille and the place of origin, a financial support for international research training and conferences participations plus a contribution to the research costs of up to 12.600€.

More information here: https://doc2amu.univ-amu.fr/en/towards-a-computational-model-of-social-skills-for-human-computer-interaction-so-human

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