



Séminaire ISIR
Mercredi 7 Décembre 2016 à
11H

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Campus Jussieu, 4 place Jussieu, Paris
Salle de réunion 304

Embodied Affect in Autonomous and Social Robots

Abstract : Why would we give emotions to robots? Emotions are a key aspect of human behavior, communication and cognition. Affective computing and human-oriented approaches to technology design take into account different aspects of emotions and their expression in order to create technology that humans feel comfortable with. However, the potential uses of emotions in robotics go beyond their social and communicative functions. In this talk, I will discuss, and illustrate with examples of research and systems developed in my group, how emotion modeling in autonomous and social robotics can serve two main purposes:

1) Understanding emotions in biological systems (humans and other animals) and their functions. From this perspective, we investigate questions such as:

- What are the key features of human and animal emotions that can be shared by autonomous robots in similar environments?
- How do emotions affect behavior and cognition?
- How did emotions evolve?
- How do they develop through life?

2) Building better robots. From this perspective, we try to answer questions such as:

- How can emotions help robots to make "good" decisions?
- How can emotions make robots interact with people better?

I will also discuss how, in my view, answering these questions requires giving robots internal models of emotions in addition to skills to express emotions and recognize emotions, and how these models need to be embodied.

Short bio : Lola Cañamero is Reader in Adaptive Systems and Head of the Embodied Emotion, Cognition and (Inter-)Action Lab in the School of Computer Science at the University of Hertfordshire in the U.K, which she joined as faculty in 2001. She holds undergraduate (Licenciatura) and postgraduate degrees in Philosophy from the Complutense University of Madrid and a PhD in Computer Science (Artificial Intelligence) from the University of Paris-XI (1995). She turned to Embodied AI and robotics as a postdoctoral fellow in the groups of Rodney Brooks at MIT and of Luc Steels at the Free University of Brussels. Since then, her research investigates the interactions between motivation, emotion, and embodied cognition and action from the perspectives of adaptation, development and evolution, using autonomous and social robots and artificial life simulations. A pioneer in the area of embodied emotions in robots, she is author and co-author of over 150 peer-reviewed publications, has led and participated in various international research projects in this field, and led different community-building and dissemination events.

Website: <http://www.emotion-modeling.info>.