



## Living with Robots and IntEractive Companions

### Innovative research project

- Launched on 1 March 2008, LIREC is a four-year research project. It aims at developing generic technologies that foster long-term interactions with artificial companions (e.g. graphical characters or robots).
- This project goes beyond the novelty effect through use of ethological models for human-dog interaction, user-centred and ethical perspective apart from psychological theory of attachments.

### Scientific and technological advances

- Deployment of affective, robust autonomous systems in real, complex and socially relevant environments, capable of long-term interaction in our three showcases: home, office and in play.
- Development of state of the art software technologies supporting migration of the artificial companion's "mind": the same entity across different platforms, independent from its embodiment (robot or graphical character).
- Exploiting psychology and ethology to inform the modelling of long-term human-robot companionship and exploring the differences between human-human, human dog and human-robot interactions and relationships.
- Development of ethical guidelines and of user centred design to facilitate the development of future artificial companions.



Images: (clockwise from top left): The robot Kaspar with a child, human-dog interactions, Cosmos a beach companion, PeopleBot helping in the Robot-House, iCat playing chess with a child, interactions with the graphical character SARAH (Social Agent/Robot to Aid Humans)

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