

Ethologically inspired robot design: How to develop social behaviour for non-humanoid robots based on dog behaviour?

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The functional behavioural parallels between dogs and humans suggest a trend for convergent evolution of the two species, thus dogs can be utilized as a ‘natural model’ for studying some aspects of human behaviour and evolution. Moreover, the dog may help us to explore brand new areas of ‘interspecific’ interactions, for example in social robotics.

Being able to adapt to the complex human environment due to its especially effective cooperating and communicative skills with humans, the dog seems to be the most successful human ‘product’ for both functional and social purposes. Cognitive robotics views animal cognition as a starting point for the development of intelligent robots or any agents – and the dog seems to be a promising model for designing social behaviours for our future robotic helpers.

I will present the first studies in this field and discuss the challenges of developing robots that are capable of effective and believable social interactions with humans.