Invited Talk
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Humane Robots – from Robots with a Humanoid Body to Robots with an Anthropomorphic Mind

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Abstract. The performance of humanoid robots has been steadily increasing and nowadays we can claim that sensing and motion abilities of robots are approaching those of humans. This has created the impression that a society where humans and robots co-exist and collaborate is not very far away. Is this true? During the talk I will argue that robots interacting with humans in everyday situations, even if motorically and sensorially very skilled and extremely clever in action execution are still very much primitive in their ability to understand actions executed by others and that this is the major obstacle for the advancement of social robotics. I will argue that the reason why this is happening is rooted in our limited knowledge about ourselves and the way we interact socially. I will also argue that robotics can serve a very crucial role by joining forces with the communities studying the cognitive aspects of social interaction and by co-designing robots able to establish a mutual communication channel with the human partner (the distinctive mark of human social interaction) [1].

References

1. Sandini, G., Sciutti, A.: Humane robots - from robots with a humanoid body to robots with an anthropomorphic mind. ACM Trans. Hum.-Robot Interact. 7(1), 7:1–7:4 (May 2018), http://doi.acm.org/10.1145/3208954