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Homes as Human-Robot Ecologies. An Epistemological Inquiry on the "Domestication" of Robots
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Abstract

From the middle 2000s, the notion of "domestic robots" has started to move from science fiction to frontier research. Related scientific investigations have led to a significant enrichment of the "Smart Home" (or "Smart Living") domain, envisioning the possibility of integrating a multiplicity of innovative robotic platforms into domestic environments. Following current literature, they span from robotic furniture to autonomous robotic agents that co-inhabit humans' domestic spaces based on "peer-to-peer" interaction skills. The strength of these robots' evocative and interactive features, together with the variety of their possible domestic uses (cleaning, cooking, baby-sitting, nursing, assisting, training, coaching, entertaining, among others), promises a considerable transformation of humans' domesticity and general way of living.

Despite this, contemporary research on the ongoing robotization of domestic environments is predominantly dedicated to technical implementation, and a sound body of knowledge on the epistemological, anthropological, cultural, social, as well as ethical aspects of this innovation is still lacking. Acknowledging this insufficiency, the present essay engages in an exploratory analysis of one of these non-technical dimensions. The focus is centered on the epistemological structure of current projects aiming at integrating robots into human residences within the two primary research domains involved in this undertaking – design and social robotics.

The goal is threefold: (a) clarifying what models of the human mind, and, in particular, of the mind-technology relationship currently influences the design and implementation of domestic robots, as well as their introduction into people's homes; (b) delineating the potential impact of these models on human domestic life; (c) suggesting an ethical approach promoting the sustainability of robots' "domestication". Based on this exploration, the essay advocates the urgency of a specific ethical reflection on the ongoing robotization of domestic environments, which it suggests to center on the value of interconnection.

*Full paper
See book ['The Home in the Digital Age'](#)