

Professional autonomy in human-robot-system interaction (HRSI): an exploration of the ethical impacts of care robots on the autonomy of caregivers

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Abstract: Professional autonomy in the healthcare system accords professionals the freedom to make decisions and to exercise judgement. In the current health care system, the autonomy of care receivers always takes precedent, while the professional autonomy of caregivers is often overlooked, which may jeopardize the professional status of the caregivers. Consequently, it is paramount to pay tribute to professional autonomy as caregivers play a central role in the care practice and their performances are significantly associated with medical outcomes and care quality. As care robots are introduced in elderly care to provide better care, caregivers make decisions and take actions not merely in a relationship with the elderly care receivers, but also in the interaction with care robots. This paper seeks an in-depth understanding of professional autonomy in elderly care by exploring the ethical impacts of care robots on the autonomy of caregivers through the human-robot-system interaction (HRSI) model. From this vantage point, the HRSI model encourages a shift in the analysis of professional autonomy away from a traditional dyadic human-human interaction in elderly care towards a new framework of understanding multipartite interaction among elderly care receivers, care robots, and a system of caregivers. A taxonomy of autonomy is employed as an evaluation tool to assess the influences care robots bring on the autonomy of caregivers in elderly care. This paper concludes that ethical impact assessments of care robots on the autonomy of caregivers in the HRSI model leads to a better understanding of professional autonomy, individually and collectively.

Key words: professional autonomy, robot ethics, human-robot-system interaction