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Challenges, experiences and lessons learned from deploying patient monitoring and assistance system at dementia care hostel.

Summary: With growing aging population around the world, there is urgent need of effective solution to improve the quality of life of demented elderly. In order to provide real-time monitoring and timely assistance to elderly in their home settings, we designed and developed a system employing model-based scenario verification, sensing-assisted activity recognition and semantic service reasoning. In this paper, we present the results achieved and lessons learned from conducting clinical trials with our developed solution at a dementia hostel. From trial data analysis, we could determine good system performance but no concrete evidences obtained on how the daily care operations and quality can be improved. Especially, we gained technical experiences and learned usability issues from end-user perspectives that could lead to designing and developing better elderly care solutions in near future.

Keywords: Demented elderly; clinical trial; scenario verification; activity recognition; service reasoning
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