Using a Robot Companion to Detect and Visualize the Indicators of Dementia Progression and Quality of Life of People Aged 65 and Older

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Abstract : This document depicts the research into the indicators of dementia progression, the automation of quality of life assignments, and the visualization of it. To do this, the Smart Teddy project was initiated to make a smart companion that both monitors the senior citizen as well as processing the captured data into an insightful dashboard. With around 50 million diagnoses worldwide, dementia proves again and again to be a bothersome strain on the lives of many individuals, their relatives, and society as a whole. In 2015 it was estimated that dementia care cost 818 billion U.S Dollars globally. The Smart Teddy project aims to take away a portion of the burden from caregivers by automating the collection of certain data, like movement, geolocation, and sound-levels. This paper proves that the Smart Teddy has the potential to become a useful tool for caregivers but won't pose as a solution. The Smart Teddy still faces some problems in terms of emotional privacy, but its non-intrusive nature, as well as diversity in usability, can make up for it.