

Technology and Industrial Design

Real world, large scale IoT systems for community eldercare: Experiences and lessons learned

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Abstract

The paradigm of aging-in-place - where the elderly live and age in their own homes, independently and safely, with care provided by the community - is compelling, especially in societies that face both shortages in institutionalized eldercare resources, and rapidly-aging populations. When the number of elderly who live alone rises rapidly, support and care from their communities become increasingly critical. Internet-of-Things (IoT) technologies, particularly in-home monitoring solutions, are becoming mature. They can become the fundamental enabler for smart community eldercare. In this chapter, we share our real-world experiences gleaned from an ongoing large-scale project on IoT-enabled community eldercare. We identify technology-centric challenges that need to be addressed, so that such systems can be sustainably implemented and adopted by key stakeholders.

Keywords: smart homes, unobtrusive sensing, in-home monitoring, community eldercare, Internet of Things