**HalleyAssist: Technology trials of a non-intrusive home automation and care system**

Modern sensor networks installed in the home have great potential to reduce social isolation, improve health outcomes, reduce healthcare costs and potentially allow an older person to remain in their home rather than having to move into an aged care facility. Such systems may control lighting through motion sensors, household security as well as provide reminders regarding hydration, medication and social engagements.

They can also be used to detect when something is wrong. Is the user eating regularly? Are they drinking adequate amounts of water? Are they taking their medication? Are they getting enough sleep? Is there an emergency such as them having fallen and are unable to get up?

Such systems have great potential to address these issues but also raise questions related to usability, privacy and security. Systems are better accepted if they are unobtrusive. Most people do not want their every move potentially monitored. Nor do they want it known when they are and are not at home.

HalleyAssist is a system we have developed to help older people and people with a disability remain in their homes longer than might otherwise be possible. It incorporates capabilities of home automation as well as anomaly detection based on wirelessly connected sensors.

In this talk we will discuss the capabilities of this system, and what we have learnt from end user trials of the technology. We will report on the reaction of users and make some general observations as to how this technology can affect aged care. In particular we will discuss the potential social impact of such technologies on families and friends of the person using the system as well as how the system could potentially reduce healthcare costs. We will discuss how it addresses issues of usability, privacy and security. Finally, we will discuss how it can be used to detect unusual patterns of behaviour that may indicate a chronic or acute health issue that needs addressing.