The Independent Living Project: Challenges and Opportunities in Implementation and the Evaluation of AAL technologies

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Abstract

The Independent Living Project aims to test the use of assistive living technologies in Reading, United Kingdom. The project aims to install sensors in people homes, and to assess the impact that the technology can have on the wellbeing of service users, the decisions that the adult social care team make, and the circle of support providing informal care to service users. This article outlines the plan to evaluate the impact of these technologies in this project and some of the early challenges faced by the project team.

Introduction

Older adults increasingly require assisted living technology to enhance their quality of life, maintain independence, and ensure safety in their daily activities (Sweeting et al., 2024). As the population ages, the integration of smart home technologies and other assistive devices has become instrumental in addressing the unique challenges faced by this demographic. The Independent Living Project is a 2 year project that aims to assess the impact that it has in multiple stakeholders, including service users, circle of support, and people working in adult social care within the Reading area.

Evaluation approach

The evaluation of Reading Borough Council's project will adopt the "Impact and Outcomes Analysis" approach, a method that is extensively utilized in fields like public policy, social sciences, and the non-profit sector (LBRO, 2010). This approach focuses in assessing the effectiveness of interventions, not just on a surface level, but in a manner that provides a holistic understanding of short-term and long-term results. In the first phase, the identification of specific impacts and outcomes that the Care Technology Solutions project is aiming for was conducted. In the second phase, a systematic linkage mapping the various elements such as activities, inputs, partners, and outputs to their respective outcomes and impacts. This ensures that every component of the project can be directly related to its intended effect, both immediate and prolonged. Phase three involves the identification of specific indicators that can measure these elements. A thorough assessment will be made to differentiate between potential indicators and the indicators that are currently in use, facilitating an integration of new metrics with existing ones. As part of this process, some of the learnings included that even though some of these metrics were being measured, the cycles of measurement did not align with the scope of the project, and therefore new data collection mechanisms needed to be implemented. A mixed of qualitative and quantitative measures are used. To develop the qualitative measures, the research team developed interview guides based on the outcomes being measured, and taking into account interview guides from other sites trialing AAL technology. To measure the service user satisfaction an adapted version of QUEST 2.0 has been used (Aledda et al., 2024) together with an adapted version of the WHO Quality of Life survey (WHOQOL) (World Health Organization, 2013). To assess the impact on workload on practitioners, the NASA TLX scale was used (Hoonakker et al., 2011). The project also aimed to determined cost savings and cost avoidance opportunities. Lastly, in the fourth phase, all the data accumulated is synthesized to derive meaningful insights.

Challenges in the project

Several challenges were identified as part of the project implementation. Firstly, there was refusal from service users and the circle of support to install the technology. Limited understanding of the benefits and privacy concerns are some of the main reasons why people do not accept trialing the technology. As part of finding ways to address these limitations, the evaluating partner involved in this project conducted a focus group with the target audience to identify some barriers and enablers of adoption. As a consequence of this work, a series of interventions are currently being explored for implementation.

Conclusions

The Independent Living Project aims to test the impact of assistive living technologies among different stakeholders, including service users, family members and circle of support, and practitioners involved in social care. This short paper summarized the approach adopted by the evaluation team to assess the impact of the technology, and outlined some of the early challenges that the project has faced.

Acknowledgments

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