LST-BOX. A box full of services for better living

LST-Box helps the older people to control home automation devices, monitor their health and stay in touch with family, caregivers and friends through social networks, in a customized and intuitive way

Contact information

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Technological Offers type

Technological solutions

Research and innovation areas

- Health and Wellbeing

ODS

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Where?

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Brief description of the technology solution and the added value it provides

Facilitating daily living of the older people through self care of health and diet, control of household devices and frequent communication with family members, caregivers and friends through social networks are the main functions of the LST-Box. This "service box", developed by Life Supporting Technologies group, is an ICT tool that connects various sensors and actuators to provide its functionality, and it can be accessed through television, mobile phone or computer both from within and outside the home. All this in a personalized way for the user according to his needs and preferences.

Description of the technological base

The LST-Box solution offers a system composed of hardware with internet connection and Bluetooth which integrates three services specifically designed to facilitate daily life of the older people:KNX domotic control (includes security alerts), management of social networks (Facebook and Twitter) and self monitoring of health care, to track daily blood pressure, weight, medication and diet via Bluetooth connection to a blood pressure cuff and a scale.

These data can be shared with the primary care physician via email. LST-Box can be accessed through the television, computer or smartphone both within and outside the home. Services are offered in a personalized way, adapted to the needs and preferences of the user, in terms of its contents presentation and the way he interacts with them.

"LST Box offers an independent living support system, integrating home automation devices with health sensors and social networks"

Market demands

- Need for improved technology approach to older people [Seniorwatch, 2008]. ICT solutions can prolong independent living for the older people and extend the time they remain active and safe in their everyday environment.
- The process of aging is leading to an increasing number of older people (aged 65 years or over) with various health problems such as hypertension, obesity, dementia, etc.. It is necessary that health and welfare systems are adapted to be more friendly to older people, through active promotion of health and self-care.
- The main fears of getting older are living with physical limitations (worldwide, more than 46% of people over 60 have a disability), having to depend on other people (the dependence increases with age) and feeling alone [INE].
- Loneliness is a common problem among the older people, and the fact of living alone is not always an indicator of loneliness. For senior citizens, social support is very important, especially when something bad happens.

"The main fears of getting older are: living with physical limitations, depending on others and feeling of loneliness"

Competitive advantages

- Multiplatform: access to services through various devices (TV, mobile, tablet), vs. dedicated devices.
- Modularity: additional services and sensors can be installed, vs. closed, not modular systems.
- Configurable and personalizable solution, according to the user's needs and preferences, providing high usability levels. Especially focused on older people (contents, user interface).
- Reduction of health and welfare services expenditure, thanks to the support on self-care and health status self-management (the system improves the accessibility at home and increases the older's people autonomy): 80% of public health resources are assigned to chronic diseases management and it is estimated that managing these conditions through ICT solutions could help reduce around 15-30% of the expenditure [CENTAC].
- The solution is being tested on a pilot with 7.000 users in several European regions.

Previous references

- Multidisciplinary research team (Life Supporting Technologies), with more than 10 years experience on solutions for health and wellbeing, and partner in cutting-edge projects in the area.
- Integrated with the Smart House Living Lab infrastructure, member of ENoLL (European network of Living Labs).

Development stage

- Concept
- R&D
- **Lab-prototype**
- Industrial prototype
- Production

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