Helicopter

MEDICAL

The HELICOPTER proposal aims at exploiting ambient-assisted living techniques to provide older adults (end users) and their caregivers with support, motivation and quidance in pursuing a healthy and safe lifestyle. The proposal is targeted at 65+ adults, not suffering from major chronic diseases or severe disabilities, yet possibly being affected by (or being at risk of) metabolic or circulatory malfunctioning which are endemic for this class age (e.g. hypertension, mild diabetes) or by mild cognitive deficits. This picture includes a large number of aging population. It is also well known that bad life habits play a major role in the development and progression of such diseases: nutrition, medical therapies and physical exercise are among the keys for prevention and control.

Helicopter applies a people centered research approach throughout the project. This means that we conduct initial user research in the pilot countries, Sweden and The Netherlands, to observe the individual user contexts and visit potential users of the system in their own houses and neighbourhood, thus deriving meaningful insights on experience, expectations and concerns towards ageing. Design researchers apply a design ethnography methodology during their visits, interviewing and video recording interviews with participants in order to collect their stories and visual information about the domestic landscapes they inhabit. The media material gathered during the user research is then edited by the designers and shared back with the consortium in order to give a glimpse of the elderly life and their context to all the other partners who have not been involved in the contextual user research.

The participation of the users will be continued along the subsequent development of the project, engaging the users in early stages of the concept generation and first prototypes.







www.helicopter-aal.eu



Healthy Life support through Comprehensive Tracking of individual and Environmental Behaviors

METEDA

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The HELICOPTER idea is to support end-users and their care givers with feedback, advice, and motivation by analysing the healthiness of the end users monitoring daily life behaviours as well as medical status in an unobtrusive simple way by employing ambient intelligence. The system will acquire data coming from a heterogeneous set of devices: besides devices customarily adopted to check basic health parameters, environmental and wearable sensors will be used to provide a qualitative and quantitative assessment of the activities involved.

Behavioural analysis techniques will be implemented to this purpose and an interpretative model will be worked out, both though "a priori" medical knowledge and accounting for "self-training" of the system. The evaluation of the health-quality of the inferred activity pattern will enable several services, aimed directly at the user (warning, encouragement, motivation) or to the caregiver (alarms, reports). Eventually, this would make the health monitoring routine much less boring and demanding; indirect wellness monitoring through ambient intelligence may possibly lead to reduce the need of frequent checking of clinical parameters.



The HELICOPTER system will mostly exploit technology primarily conceived for different functions: environmental sensors, for instance, are used for environmental control and safety checks. Therefore, the HELICOPTER services will complement other services supporting an independent lifestyle, highlighting mostly an innovative way of using information already available for different aims.







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