Kith&Kin

Technology connecting friends and family

Publishable Summary

The Kith&Kin project tackles the problem of the progressive social isolation of older adults living alone and in far distance from their family members. It offers a solution for technology illiterate older adults to foster the communication and interaction with their family and friends by designing a new product which is based on well-known communication and interaction patterns. The innovative core of Kith&Kin is the tangible/haptic user interaction capability implemented by extending a standard tablet.

The modules offer communication functions (video conferencing), photo sharing and photo album, and gaming (playing alone or with a person also having a Kith&Kin device or an app). The target groups are PC-illiterate older adults and their remote family members and friends. Other than the current small number of ICT products that are currently available on the market for computer illiterate elderly, Kith&Kin does not rely on the idea of training computer illiterate seniors in modern technology usage. However, it provides them with a device that is simple and intuitive to use, because it provides tangible buttons for functions and gives a haptic feedback. Kith&Kin has the following USPs:

- **Attachable buttons and cover** allow intuitive computer use for computer illiterate elderly. The modules are selected via haptic buttons (manufactured by a special method of printing 3D conductive buttons), and functions inside the modules are applied by touching palpable active screen regions. This also allows intuitive usage for people with vision and/or physical limitations. Buttons/cover can be attached to existing tablets (re-use of existing older tablets possible).
- **Stand:** A stable stand provides two optimal positions for the tablet: one for ergonomic working, one for improved video communication experience. The Velcro connection allows flexibility and a strong tablet-stand integration for walking around.
- **Lens:** An additional lens enhances the field of vision for the video communication. Therefore, more of the body language is included, which improves contact experience over distance for people with low cognitive skills. It also enables shared activities over distance by sharing arm/hand language.

End-users were involved first for the end-user requirements engineering study: 57 test persons from Switzerland and The Netherlands, split in two categories: illiterate elderly people aged 70+ and family members and friends aged 30+. In

May and June 2016, these were involved in the methods cultural probes, focus group discussion and design workshop. The second study focused exclusively on the end-user group of technology illiterate seniors aged 70+ with no or only little experience in ICT. At the end of 2016/beginning of 2017 lab trials took place in Switzerland with 6 end users and in The Netherlands with 8 end users. Various mockups of the prototype were used for testing. In Aug/Sep 2017, the lab trials for testing prototype 1 took place in Switzerland and The Netherlands. In March 2018, 21 test persons were involved conducting the methods questionnaires, focus group discussion and design workshop. Finally, from Nov 2018 to March 2019 the field trials took place in Switzerland and The Netherlands. Before the lab and field trials for both prototypes, expert tests took place.

Business model and time to market: After evaluating various scenarios, we have chosen to offer a basic free Kith&Kin app plus in-app purchases and accessories. The rationale behind is that the free app allows us to penetrate the market and reach many users. To take advantage of this large user-base and to monetize the venture, we will offer premium features on a subscription, raise sponsorships, display ads as well as selling accessories. The premium features will include the photo sharing and gaming module. The free app also offers limited functionalities for photo sharing and gaming, in order to give the opportunity to the users to experience a bit of the benefits of subscribing to the premium features. The YoooMFamily app for video-communication is already available for Android in some countries. In the worst case, we forecast a positive total balance of €55,000 from year 1 to 5, while expecting over €1 million in our estimated case and over €3.5 million in our best case.

For further information visit: www.kithnkin.eu