

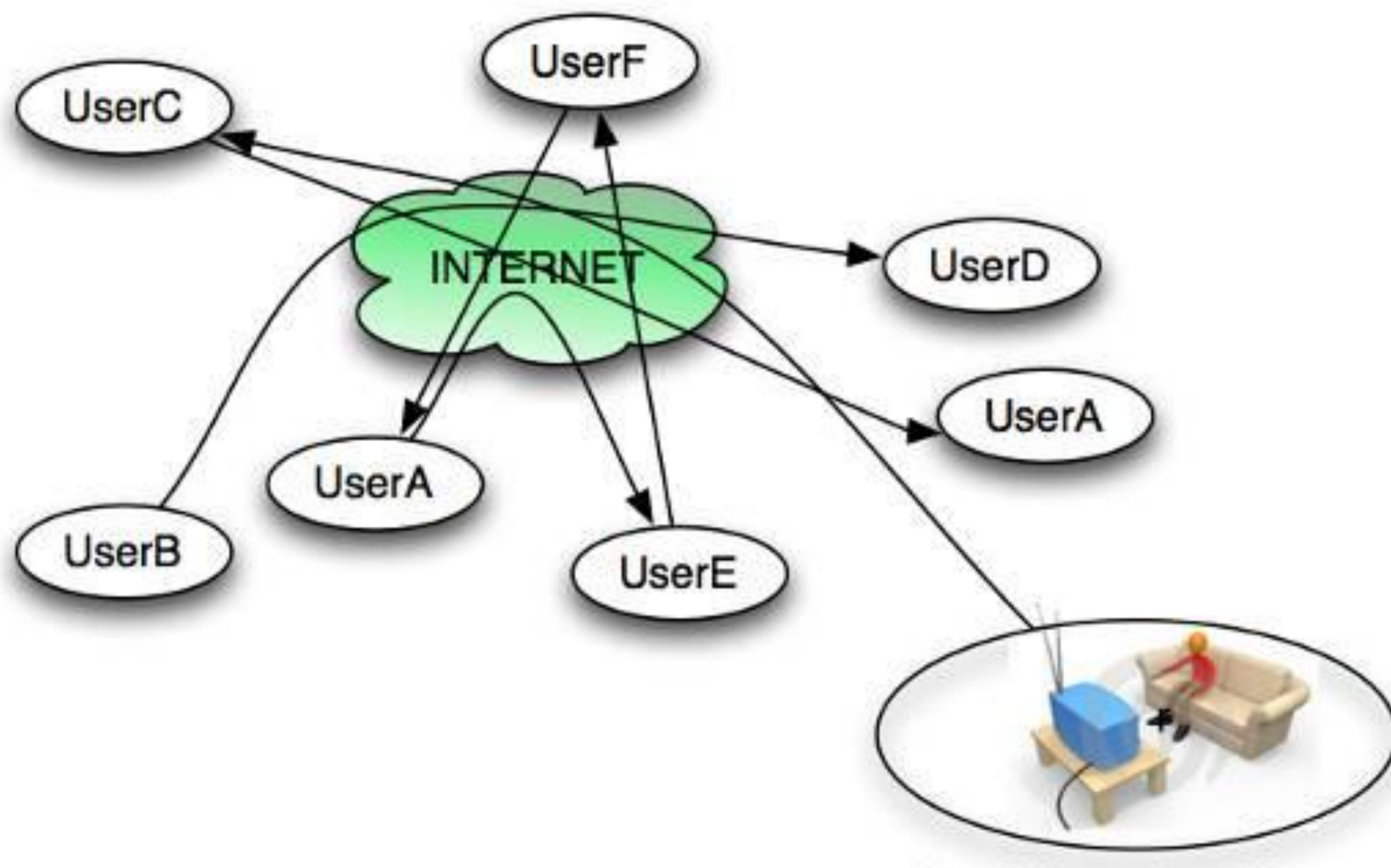


Fostering social interactions of home-bound and less educated elderly people



Nothing is beyond your Reach...

Allowing a comfortable experience of Internet through the use of familiar devices such as a TV set and an intuitive and friendly remote control



Project objectives

EasyReach proposes an innovative and sustainable solution allowing elderly and less educated people to participate in the benefits of ICT-based social interactions.

The hardware is very simple: a remote control resembling a small TV remote but capable of capturing user's gestures and of taking pictures. Social exchanges are managed and aided by a "social interaction agent" that "looks" at all the interactions and commands from the user. Social interaction agents can go on the net and query other agents on behalf of user's wishes or simply to fulfil the goal of improving the quality and breadth of user's interactions. Interactions are cast as "services" that are managed and enhanced by *EasyReach*, for example:

- organizing groups of people that already know each other, e.g. relatives and friends or creating groups of people that care for a certain topic (discussion);
- organizing groups for the purpose of "interfacing" the user with existing organizations, e.g. a church, the Senior Centre;
- organizing help sessions where a skilled user can help or train other users.

Moreover, *EasyReach* continuously examines user actions and interactions and gives the user a few extra services, for example:

- support of user's threads of interaction like appointments and things-to-do;
- automatic organization of user's information;
- monitoring of user's quality of interaction in order to provide feedback;
- fostering of new interactions.

A possible scenario

The system is installed in the user's home by positioning the set-top box near the TV that is permanently set to "external input" with the antenna connected to the set-top box. A new remote control is used.

The system automatically and without user intervention searches for other users. Well known peer-to-peer technology is employed to avoid using a central service.

The system provides the usual TV channels that are accessed with the same style of interaction of a typical remote control (up and down arrows to change channel, up and down volume, on-off). All the new services are provided on what looks like a new TV channel.

The user starts noticing that the remote is aware of its position and of how it is handled. Simple pointing to the screen can trigger actions.

The remote can be pointed to home objects including text in order to take pictures, there is feedback (the viewfinder) on the TV.

User is able to collect and send pictures of whatever he has in his home. Pictures can be annotated with voice and shelved in the system. The user starts participating in groups suggested by the system and can propose new groups and activities...

While there is little in the area of socialization applications for unskilled elderly people, Internet offers many applications geared towards older people. Currently the focus is on medical issues.

The problem with all these applications and with any future internet application is that they rely on a basic core of knowledge and skills that is not widespread in the community of less educated elderly people (i.e. pre digital-divide population). *EasyReach* progresses beyond the state-of-the-art because it brings the power of network-based socialization to the level of a very simple appliance like the TV.

EasyReach leverages the low cost of electronic components and of network communication to offer highly attractive socialization applications to a potentially very large market.

EasyReach brings an advancement of knowledge in three areas:

- Breaking the remote control usability barrier: going beyond on/off, changing channels and volume controls,
- Devising new ICT social interaction models,
- Investigating automatic ways of supporting user interaction.

Design methodology

EasyReach methodology is based on:

- A user-centred design approach where elderly people – together with their families and caregivers – will be considered co-developers; it aims at matching the needs of the older population by addressing accessibility/usability, adaptability and personalization of the developed solution;
- A business driven approach with a deep analysis of the enabling conditions for an effective exploitation of the developed solution.

Target users

EasyReach is specifically targeted towards those individuals that, because of poor scholarization, low income and possibly linguistic barriers, still find it difficult to use computers and improve their socialization.

This group includes expatriates; it is a large and growing market segment of people that are very likely to adopt new solutions if they have the right cost-benefit (as an example consider the widespread adoption of cellular phones and TVs by the poorer segment of the population).

<http://www.easyreach-project.eu/>

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