

# PresenceRemote: Embracing Ambiguity in the Design of Social TV for senior citizens

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**Abstract.** This paper reports on our early experiences with the design of Social TV for senior citizens. Even though there seems to be a straight forward match between new interactive TV technologies on the rise and the notion of supporting social interaction amongst elderly TV viewers it is not at all clear how these technologies can accommodate the specific challenges related to the everyday life of elderly people. In particular, using an example concept – the PresenceRemote – we will discuss how the stigma associated with being lonely, an inherent part of senior living, can be addressed by leaving room for unarticulated intentions of use in our design of Social TV. The ‘PresenceRemote’ is an enhanced TV remote control making it possible for you to notice others and be noticed by peers within your local neighborhood as you watch TV.

**Keywords:** Senior citizens, social interaction, ambiguity, stigmatization, interaction design, Interactive television, Social TV

## 1 Introduction

While much effort has been directed towards the design of assistive technologies that aim to help overcome the physical challenges of growing older there is an increased awareness that more attention needs to be directed towards the design of technology addressing the social and emotional aspects of aging (cf. [1]). These concerns for the social dimension of growing older have led to various attempts to introduce internet-based computer applications such as chat-lines and billboards for network relations among senior citizens ([2], [3]). On this background, the notion of Social TV, combining the familiar and much enjoyed everyday activity of TV watching with the possibility to provide openings for social interaction seems very promising. However, even though the basic TV technology needed to pursue the design of Social TV is (or is about to become) a standard component part of ordinary households it is not clear how this technology can be turned into a resource for social interaction that can accommodate the specific challenges related to the everyday life of elderly people.

As we start looking at Social TV as an assistive technology in the context of elderly living the success and acceptance of such a technology will not only depend on the functionality offered. As pointed out by Hirsch et al [1], the difference between ‘can’ and ‘will’ be used is directly linked to the notion of non-stigmatizing versus stigmatizing assistive technology - non-stigmatizing technology meaning technology that can be used without putting the elderly on display as disabled, needy, weak or in

any other way pathetic individuals. In a previous study of how older people go about socializing in everyday life [4] we found that despite the fact that a majority of the people in the communities we looked at lives alone - and that loneliness clearly is a theme of great relevance - loneliness was tabooed and something people were reluctant to expose. Hence, we argue, people will not appreciate and consequently not make use of Social TV if the use of this technology singles them out as lonely individuals. Thus, as we move towards design of Social TV for senior citizens it is critical to understand the social stigma often associated and experienced with being lonely. In order to address this stigma we suggest that our design of Social TV should embrace the kind of ambiguity that people already experience and take advantage of in face to face social interactions throughout everyday activities - an ambiguity inherent to the interaction experienced at casual meetings between people throughout everyday life that helps people to interact without directly touching upon the taboo of loneliness. In the following sections of this paper we will use an example concept - The Presence-Remote (PR) - to discuss and demonstrate this approach to the design of Social TV for senior citizens.

## **2 Example Concept: PresenceRemote**

The 'PresenceRemote' (PR) is an enhanced TV remote control making it possible for you to notice others and be noticed within your local neighborhood as you watch TV. Designing for a local neighborhood implies an environment with ample opportunities for social interaction, not least of course, as part of face-to-face joint activities and chance encounters. We think of the PR as a supplement to these already existing ways for the elderly within a community to interact. Furthermore, while other design for Social TV [5] aims to change the activity of TV watching from a 'lean-back' to a 'lean-forward' interactive and engaging online experience we seek to add a dimension of social interaction while keeping the original TV watching activity as intact as possible. We are looking to take advantage of TV watching as an already existing everyday activity and use this activity as a provider of openings for social interactions.

The PR is basically a TV remote control (see figure 1 next page) with the addition of a color display and three extra buttons. Below follows a brief description of the functionality:

- When the PR is OFF it works as your ordinary TV remote control with no extra functionality and no information about TV activities, yours or others, flowing to or from the PR. Switching the PR to its ON state is done by pushing the 'PresenceRemote on/off button' (see figure 1).
- The 'Take me to the most popular channel button' is a simple push button that takes you to the channel currently watched by the majority of people within your community with their PRs turned ON.
- When your PR is ON the PR display and the functionality offered depends on whether your TV is ON or OFF. If your TV is OFF the display shows a pulsating red color indicating how many people in your community has their TV turned ON. Hence, you may notice the community TV activity as you walk by the PR

even when your TV is OFF. This may in turn lead you to turn on your TV on and press the ‘take me to the most popular channel’ button.

- When your PR as well as your TV is ON the PR display will show the names of those of your buddies that currently have their TV and PR turned ON. We will refer to this mode as ‘Buddy Mode’. When in Buddy Mode the PR will display the names of your buddies watching TV. It will however not display which channel(s) the buddies are watching. We imagine that the Buddies available to the PR are a subset of the people that you already decided to include in your list of contacts on your cell phone.
- Finally, the transition from noticing that a Buddy of yours is watching TV to actually establishing contact is done by a handover to your cell phone. Handover meaning that you select your Buddy on the list of active buddies displayed on the PR and by pressing the ‘Handover to cell phone button’ the PR (using Bluetooth for example) sends the Buddy ID to your cell phone. The cell phone in turn now enables you to make a regular call or send a SMS whichever you find more appropriate.

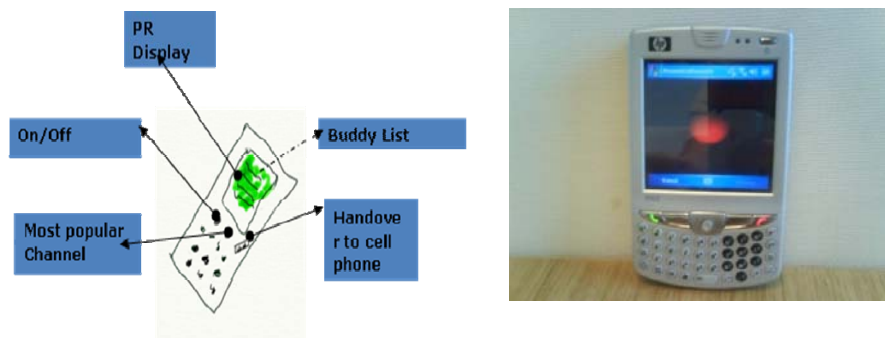


Figure 1. Sketch of the PR and an early prototype using a standard PDA

In our design of the PresenceRemote we deliberately aim for a kind of technology that does not force people to be explicit about their intentions as to why they use a particular technology at a particular time. Hence, with the PR we allow people to leave it unarticulated whether they in fact are watching TV as an excuse to meet others. First, by design, having and using a PR should not be perceived by others as an invitation but rather as a way of saying: ‘I have a PR, and like other people in this community, I don’t mind that you know that my TV is on’. Second, by design, when in Buddy mode it is not possible to distinguish whether a) you are looking for company b) you are simply watching TV or c) both! Also, if you do not show up on your buddies PR display there is no way for them to know whether this is due to a) your TV is off or b) you have chosen to watch TV ‘in secret’.

We choose not to reveal the channel watched by buddies. By not displaying the choice of channel we serve some obvious privacy concerns but just as important by not making the channel explicit we bring forward openings for conversation. We speculate that this mode will stimulate communication along the lines of conversation starters such as “what are you watching?” and “is it any good?” or a simple “hi”. That is, conversation starters that seem to be about the TV activity but in fact may be much

more about extending a greeting - about noticing others and making oneself noticed. This would indeed resemble a pattern observed during our field studies. Confirming the presence/existence of others and (re-)establishing the fact that everything seems to be as usual was often expressed as being a very important part of the daily routines amongst our interviewees. However, the existing ways of doing so was not expressed as activities with the explicit purpose of checking in on each other but expressed as part of some other activity like pseudo chance-encounters on the daily tour, the daily swapping of news papers in the afternoon, or other daily routines where it was kept unsaid but quite evident that the routines to a large extent really was about reconfirming that people in your network of friends were doing all right. In the same way we speculate that simply noticing a Buddy on the PR and letting her notice you may be sufficient for you and her to feel that people caring for you are within reach should something happen. Also, the 'offer' made to a person entering a buddy relationship is one of reciprocity in terms of the information that is accessible to you and the information you provide. The PR does not allow lurking on your buddies' TV activities without, at the same time, giving them a chance to notice you. This of course emphasizes that we are dealing with a relationship between peers. Furthermore, we believe the pulsating red color may serve two different purposes. First, we envision that this display of community wide TV activity may provide you with a sense of community belonging even without actually turning on your TV. Second, if combining the activity indicator with the 'Take me to the most popular channel button' we believe that the sense of community can be strengthened further. We speculate that watching the same TV show as the majority of people in your neighborhood can increase the chance to strike up a casual conversation about last night's TV show with people that you run into the next day.

Finally, an important feature of the PR is that it only detects and reports information that is directly related to the single activity of watching TV. Hence, there are clear delimitations to the PR's 'reach' and by simply turning off the PR all detection and exchange of information regarding your TV activities stops. By strictly tying the activity detection to a well-defined activity we aim to keep a strong sense of control and containment.

### **3 Concluding remarks**

Using an example concept – our PresenceRemote - we have discussed how to circumvent the stigma associated with being lonely in the design of Social TV for senior citizens. Based on our prior studies of elderly living and the design process leading to our PresenceRemote we bring forward the overall suggestion that we, in order to succeed in our design of Social TV for senior citizens, have to leave room for ambiguity and thereby allow people to leave their intentions of use unarticulated. This implies a rather eccentric challenge of designing a technology that even though it is designed to bring people together and support social engagement it cannot reveal that this is why people would use it. By taking on this challenge, we at the same time question what seem to be the dominant model underlying the design for Social TV - a model implying that there is willingness or maybe even a desire amongst TV viewers to turn the

serene 'lean-back' experience of watching TV in private into a 'lean-forward' activity emphasizing the synchronous interaction between the inhabitants of virtually interconnected living rooms. In our studies of the everyday life of senior citizens, it has become evident that we need to think differently about the design of Social TV for this group of people since they do not normally consider themselves as part of technology-mediated networked communities. In consequence, we have explored how Social TV can support a form of social interaction that builds on the subtle and discrete understanding of other people's activities and how Social TV, in this way, can act as a supplementary resource for the circumstantial interactions that plays out during casual encounters throughout everyday life. We realize, as we have not yet been able to fully implement the remote control in actual use that we can only speculate about the actual effects of our design rationale and choices. However, we had the opportunity to work with a group of seniors who participated in workshops to elicit their thoughts about our concept and early prototype. The outcome of these workshops was; firstly, a recognition among the seniors that the less explicit form of social interaction we design for plays an important role in their everyday life as it provides opportunities for informal and spontaneous interaction with other people when for example grocery shopping, taking an elevator ride, standing in a queue, doing laundry in the shared washing room etc; secondly, the group appreciated the idea of a technology that in a subtle way could help 'break the ice' and provide an opening rather than a commitment for social interaction and thereby accommodate rather than control the process of establishing contact during casual encounters.

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