A web-agent based system to extend the elders social family networks

Pedro C. Santana[1], Víctor M. González[2], Marcela D. Rodríguez[1,3], Jesús Favela[3]

[1]School of Engineering, UABC University, México
[2]Department of Informatics, University of California, Irvine, USA
[3]Computer Science Department, CICESE Research Center, Ensenada, México
{psantana, marcerod, favela}@cicese.mx, vmgyg@ics.uci.edu

ABSTRACT
The aging of the population is a phenomenon faced by most nations. From a qualitative study, key issues emerged regarding unmet needs of elder's communication that we propose to address with a web-agent based communication system.

Keywords
Elderly, sharing, digital photos, social family networks.

INTRODUCTION
The aging of the population is a phenomenon faced by many nations, such as Mexico, where 7.5% of the population is 60 years or older [1]. Among those elders, 10% of them live alone with no close family members around them. This condition is more likely to occur in some regions of Mexico as it is related with the ever increasing migration of one or more of their relatives to the USA. The living conditions of those elders can be quite complex as they often faces the impossibility of visiting or being visited by their families as they lack proper documentation (visas).

Our work aims to provide a technological solution focused on supporting the relationship between elder people living alone in Mexico and their relatives living abroad. In order to provide adequate support for this scenario we have to understand, from the perspective of those experiencing this situation, what are the challenges and circumstances around living alone for an elder person. Departing from an initial understanding of the context of the phenomenon, we conducted interviews that served to inform scenarios and to envision a preliminary design of the system. We then built a prototype of the solution that was evaluated by some elders and their relatives living abroad. Results of the evaluation are used to improve the design and consolidate a final and more complete solution.

DESIGN DECISIONS
As a result of our analysis, we envision that to ameliorate the loneliness of Mexican elders, a system needs to provide the following functionality:

Enable elders and their family to feel close and maintain contact. We envisioned an electronic family newspaper to help users to share information, such as personal memories, or traditions that elders would like to transmit to their younger relatives, or vice versa, the family residing abroad sharing the new customs they have adopted, and, it will facilitate their integration into the networks that currently connect members of their families who increasingly are making use of e-mail and instant messaging systems to keep in touch with each other.

Encourage elders and their families to maintain contact. As found in our study, elders and their families used to communicate more frequently at the beginning of the separation. For this, we are exploring to use a reminding mechanism that makes users aware of the last time they posted information to the newspaper, and then provide the means to encourage them to communicate with the elders with some periodicity.

Enable an easy way for elders to use the system. We consider that for elders we need to propose an easy way to use the system based on a pen-computing based system and using digital cameras, and scanners to get printed photos or images of documents that they want to publish in the newspaper.

Make accessible the system for the elders' family. As most of the elders' families already use Internet communication tools for being in contact others, we can use the Internet as a channel for them to access the family newspaper.

Elders may access and use the system in several places within the home. The family newspaper is presented in a display that can be hanged on any wall or left on any surface of the elder's home.

CONCLUSION
We have presented the design of a system to help elders to incorporate them to the social networks that have been fragmented due the distance between them and their families living abroad.

REFERENCES
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