

P-M. CHAPON, E. ARNOUX, J. GUESLOT, B. BOUDIN. SIGAAL: Technologies for maintaining the elderly at home. *Gerontechnology* 2010;9(2):203; doi:10.4017/gt.2010.09.02.236.00 **Purpose** French housing accommodations are unfit for the current and future needs of the elderly¹. Appropriately designed and adapted housing needs to be built. Although the construction sites have been found², the services that will be offered to residents remain to be defined. A joint study³, carried out with the CHU in Nice, consisted of equipping elderly people who live alone with GPS tracers for one week, and comparing their mobility with numerous data collected in parallel to this study: Geriatric Depression Scale (GDS)⁴, Mini Mental Score (MMS)⁵ and notable physical and nutritional issues. Only two variables revealed a real correlation: when the person has cognitive trouble and/or is depressive. The Intergenerational Assistance Services for the Elderly in their Homes project (SIGAAL) is a 3-year, 5.2 M€ French research and development program which aims to provide adapted and evolving services, within well adapted structures, for a fragile, elderly population. **Method** The project was launched in July 2009. Today, a group of associated sociologists and psychologists are evaluating the different needs. Moreover, a study⁶ was conducted with Mondial Assistance using exploratory methods (ACM and ACP) for 703 elderly people equipped with a tele-assistance device. With a mini GDS⁴, it's possible to establish correlations between depression and quality of the geographic environment, and the importance of having family nearby. With the help of a television screen, SIGAAL is designed to provide three main service categories: facilitate relations with family members, deliver practical information about the neighbourhood (shops, services, local information) and provide safety and comfort to the elderly person in addition to his/her traditional tele-assistance. **Results & Discussion** Establishing these needs leads to technical questions. The information flow will be provided by RSS flow and be vocalised. In addition, the graphic interfacing will be drawn from previous works⁷. Legal questions also arise: if the sensors break down, who will be responsible? And finally, cost remains the most essential question. The SIGAAL Platform should not cost more than 300 € to purchase and the associated services a maximum of 20€ a month. After completion of a pilot site in a new residential neighbourhood in Chevilly Larue, near Paris, 500 new accommodations should be equipped by ICADE.

References

1. Chapon PM, Renard F. *Etudes Foncières* 2009;141:19-42
2. Chapon PM, Renard F. *Géographica Helvetica* 2009;3:164-174
3. Chapon PM, Renard F, Habi S, Gueslot J, Dautan M, Mallea P, Robert P, Guerin O. Analysis of Residential Environment and senior citizen mobility by means of GPS tracking; in preparation
4. Clément JP, Nassif RF, Léger J-M. *L'Encéphale* 1997;23(2):91-99
5. Thomas P, Hazif-Thomas C. *Revue de Gériatrie* 2003;3:247-258
6. Chapon PM, Gueslot J, Habi S. Depression and environmental quality geographic proximity: what correlation?; in preparation
7. Cardon P, Trellu H. *Cahier de recherche M@rsouin* 2004;1:1-8

Keywords: depression, MMS, GDS, housing, elderly

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