

A. DELATTE, A. THEPAUT, M.T. SEGARRA, M. L'HOSTIS, P.M. CHAPON. *Android and geolocation at the service of the elderly*. *Gerontechnology* 2010;9(2):209; doi:10.4017/gt.2010.09.02.235.00

**Purpose** As an open, mobile platform, Androids have the potential to bring innovative services to the elderly. In particular, the use of geolocation technology for the elderly makes it possible to identify the area within which the elderly live and move, and therefore, we can study the nature, length, and frequency of their trips. This information would allow us to better identify the needs of the elderly and propose arrangements for urban planning. **Method** Daily mobilization of older people can be observed by their use of time and space. Several studies on this topic have been made<sup>1-5</sup>, especially regarding spatial activities of the elderly. Their objective is to identify the 'action space'<sup>6</sup> or 'life territory'<sup>7</sup> of the sampled population, i.e. the space where the daily activities, of observed individuals, are made in the given territory. Using a GPS tracer combined with quizzes is an interesting tool, as it allows for the precise measurements of a seniors movement. A study conducted in Lyon, in two residences of 80 year-old people, has given the foundation an analysis methodology of spatial activities<sup>7,8</sup>. This method is beneficial for urban planning and development, as it allows for evaluating the territorial optimum for the creation of new buildings and residences. **Results & Discussion** SID group at Telecom Bretagne, in partnership with Michel L'Hostis, has worked on designing new applications for the Android platform to enhance the daily life of seniors. A first step was to adapt the default user interface for people that could suffer from visual or cognitive disabilities. This interface takes advantage of the tactile screen of Android devices by maximizing the tangible surfaces, minimizing the amount of text, and using sound and vibration as feedback to simulate the press on a real button. Given the richness of communication and location, features of the platform, and the availability of Android devices in the mass market, our group has investigated their use in large-scale measurement campaigns, gathering mobility behavioural data for a hundred senior volunteers.

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