



A creative approach to software development





Case Study 05 - Siemens - 'Ever present computing' in Elderly People's Homes

The European Commission has identified that there will not be enough care workers or retirement homes to look after the number of elderly people over the coming decades. This is because we as a generation are living longer and will need longer term care and support.

The Government has commissioned a €1.3Million project lasting 3 years, to develop a home based system to monitor the well being and life style of the elderly. This project is called EasyLine.

EasyLine utilises Neural Networks, Radio Frequency Identification (RFID) and a wireless network established between all the white goods in a house.

RFID (similar to security tags for CD's Books etc.) is mainly devoted to capturing data from the environment, such as temperature, lighting, cooking devices, food and clothes.

The Neural Network is used to classify the captured data to monitor and "learn" how the users develop their lives.

EasyLine will monitor the elderly person's activity, to ensure that they are living in a manner that means they are fit and well. Numerous everyday habits will be monitored; some of which include 'fridge is opened in the morning', 'food is taken out', 'the oven is used to cook food', 'the lights are going on and off'.

All of this activity is monitored by the eServant, a component of the system that can do things like automatically program the oven to cook food. The food would use RFID tagging to allow the oven to know what to cook. An example message received from the food could be "this is a 3Kg chicken with a expiry date of the 12 March 2008".

Siemens are the industrial partner who is producing the chips for the white goods that create the wireless network in the home. The University of Zaragoza is the R&D Technology partner and Motive is the commercial partner developing all the user interfaces and communication protocols that allow the devices to monitor the house.





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