Maastricht University Leading in Learning!

CAPHRI School for Public Health and Primary Care

Research on technology in long term care

at Maastricht University

Prof. dr. Luc de Witte

Characteristics

- Joint programme with Zuyd University of Applied Sciences, research centre technology in care (and care organisations)
- A new programme, started early 2008, so still developing: now 12-13 fte in total (7 PhD's)
- Embedded in CAPHRI, a large research school with 160 PhD students, about 300 staff members, with a strong focus on primary care and public health, but very well related to clinical groups

- Focus on long term care (elderly care and care for people with chronic diseases)
- The aim is to contribute to the quality, effectiveness and efficiency of long term care, using technology
- We don’t develop technology: we intend to be partners in the development process, to support the use of technology in care practice and to perform evaluation studies

Ambition

- To build a regionally focused programme, jointly with care organisations and SME's in the region (Care.INC)
- That is embedded in a national centre of expertise on care technology research, together with Twente University, TNO, care organisations and enterprises (CCTR)
- That has good international relationships

Main topics

- Care.INC:
  - Autonomous ambulatory monitoring systems
  - Care robotics
  - Technological solutions for low care problems
- CCTR:
  - Extramural diagnostics
  - Autonomous ambulatory monitoring
  - Distant therapy and training

Example 1: monitoring

- ActivAgeing: monitoring physical frailty in the elderly
  - Joint project with UTT, Troyes, France
  - Central question: how can we monitor frailty in elderly at home and how can these monitoring data be used to support self management of the elderly?

Elements of the ActiveAging system

- Balance Quality Tester

  (balance, weight)

- Grip ball

  (muscle strength, endurance)

- Mobile phone

  (physical activity, gait problems)

Example 2: 'social' robots

Socially assistive robots in psycho-geriatric care

Question:

How can PARO be used in psycho-geriatric care and under what conditions is this cost-effective?

Example 3: the ARM robotmanipulator

Example 4: mobility robots

Example 5: low care problems