

Poster abstract

Knowledge-based provision of home care e-services for the elderly and disabled

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Abstract

Introduction: Elderly chronic patients are an increasing population using more and more national health services all around Europe. One way to better manage this social and economic challenge is to improve home care through the introduction of information and communication technologies (ICTs).

Description: The K4Care European research project has developed a web-based multi-agent platform providing the medical and management e-services required in a home care system. Due to the comorbidity of the typical patients of this application, the tool allows medical practitioners to define fully personalised care treatments (Individual Intervention Plans). Each of them involves the execution of diverse actions from different actors of the system. Every actor deals with an intelligent agent of the K4Care platform. Agents coordinate their activities autonomously in order to efficiently execute these personalised plans under the supervision of practitioners. Moreover, all the behaviour of the system is guided dynamically by the organisational and medical knowledge represented in the form of ontologies and formal intervention plans.

Conclusion: The prototype developed in the K4Care project can be taken as a proof-of-concept of the viability of improving home care assistance in the near future by using a combination of artificial intelligence methodologies, medical knowledge and ICTs.

Keywords

home care e-services, elderly, disabled, ontologies, medical knowledge, information and communication technologies

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