



Fabio Sartori

University of Milano-Bicocca, Italy

Personalized treatment of chronic diseases from a computational perspective

Quality of life (QoL) of patients affected by chronic diseases and their caregivers is a very important and interdisciplinary research topic. From recent literature new methodologies to reduce the impact of a chronic disorders on everyday life of affected people and their relatives are required: PERsonal Care Instructor and VALuator (PERCIVAL) project is an attempt to build up an integrated environment to promote the sharing, deliberation and monitoring of decisions about different aspects of chronic diseases among all the actors involved. Patients affected by chronic diseases are often interested by multiple disorders, which make them frail from many points of view: From the physical perspective, they must follow different kinds of therapies, with possible negative intersections that could cause them very hard side-effects; From the psychological standpoint, the self-acceptation of such long-term disability, and, for most of them, life-long disability, is very difficult to reach; Last, but not least, from the social viewpoint, they must entirely depend on their caregivers, that are their relatives most of times, for all the aspects related to their condition; this dependency typically becomes closer and closer according to the evolution of the chronic disease. PERCIVAL aims at developing decision

support systems capable to exploit both quantitative data perceived by wearable devices, that are nowadays recognized as very useful to face with chronic disorders, and qualitative data provided by the user to take decisions tailored on patient profile. In this talk, the general architecture and a prototype of the PERCIVAL system focusing on the definition of personalized training programmes will be presented. Moreover, the conceptual model behind the system, based on the adoption of bayesian networks and the first experiments, whose goal was to profile potential users of the PEERCIVAL system to derive effective Conditional Probability Tables will be introduced.

Speaker Biography

Fabio Sartori, PhD, is Assistant Professor at the Department of Computer Science, Systems and Communication, University of Milan-Bicocca, Milan. His research mainly focuses on conceptual and computational frameworks for knowledge-based systems design and implementation and case-based reasoning. He is the author and co-author of more than 70 scientific papers on international journals and conference proceedings. He is associate editor of Data Technologies and Applications journal and member of the steering committee of the Metadata and Semantics Conference Series.

e: fabio.sartori@unimib.it

 Notes: