

HPI Kolloquium

18.05.2017, 16:00 Uhr

Hasso-Plattner-Institut, Vorlesungsgebäude, Auditorium 1
Campus Griebnitzsee, 14482 Potsdam

“Modeling Business Processes in Healthcare Domains”

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Abstract

Business Process (BP) technology has emerged as one of the leading technologies in modeling, redesigning, and executing organisational processes in many different application domains. Among them, the representation and management of health and clinical processes have been attracting a growing interest. Such processes are in general related to the way each health organization provides the required healthcare services. Health and clinical processes may underly the specification and application of clinical protocols, clinical guidelines, clinical pathways, and the most common clinical/administrative procedures. Current BP systems are lacking in effective management of three general key aspects that are common (not only) in the clinical/health context: data and knowledge dependencies, exception handling, and temporal constraints.

In this talk I will first introduce and discuss recent advances in business process modeling with respect to the healthcare/medical domain.

Then, I will introduce some recent results on algorithms for checking temporal properties of business processes in presence of explicit temporal constraints among tasks.

Short CV

Carlo Combi. In 1987 he received the Laurea Degree in E.E. by the Politecnico of Milan. In 1993 he received the Ph.D. degree in biomedical engineering. Since November 2001, he is with the Department of Computer Science of the University of Verona: from November 2001 to February 2005, he was Associate Professor of Computer Science; since March 2005, he is Professor of Computer Science. From October 2007 to September 2012 he was head of the Computer Science Department. Main research interests are related to the database and information system field, with an emphasis on the management of clinical information. The two main areas are temporal information systems (time-oriented data and process modelling) and multimedia databases. He is author of more than 100 papers published on international journals and proceedings of international conferences. He is author, with Elpida Keravnou - University of Cyprus and Yuval Shahar - Ben-Gurion University of the Negev, of the book "Temporal Information Systems in Medicine", Springer, 2010. He is involved in the scientific activity of several scientific international journals and conferences. Since January 1999 he is editorial Board Member, journal Artificial Intelligence in Medicine. From July 2009 to June 2013 he is chair of the Artificial Intelligence in Medicine Society (AIME). He is guest editor of several special issues of international journals (Methods of Information in Medicine, Annals of Mathematics and Artificial Intelligence, Artificial Intelligence in Medicine, Journal of Intelligent Information Systems, Computers in Biology and Medicine, ACM Transactions on Intelligent Systems and Technology). Since January 2017 he is Editor in Chief of journal Artificial Intelligence in Medicine.

Host: Prof. Dr. Mathias Weske