Title of the talk: Agility meets data warehouse design

Abstract:

Data warehouse systems are characterized by a long and expensive development process that hardly meets the ambitious requirements of today's market. Indeed, the literature on data warehouse design mainly focuses on traditional, linear approaches and it appears to be only loosely related to the design methodologies that have been emerging in the software engineering community. In this lecture we analyze the advantages arising from the application of modern software engineering methodologies to a data warehouse project and we describe 4WD, a design methodology that couples the main principles emerging from these methodologies to the peculiarities of data warehouse projects. The principles underlying 4WD are risk-based iteration, evolutionary and incremental prototyping, user involvement, component reuse, formal and light documentation, and automated schema transformation. Finally, we discuss the role of conceptual design, CASE tools, and early testing in boosting the data warehouse lifecycle.

Bio: Stefano Rizzi received his Ph.D. in 1996 from the University of Bologna, Italy. Since 2005 he is Full Professor at the University of Bologna, where he is the head of the Business Intelligence Group and teaches Business Intelligence and Software Engineering. He has published more than 100 papers in refereed journals and international conferences mainly in the fields of data warehousing, pattern recognition, and mobile robotics, and a research book on data warehouse design. He joined several research projects on the above areas and has been involved in the PANDA thematic network of the European Union concerning pattern-base management systems. He is currently involved in the EU H2020 Project “Toreador”. He is member of the steering committee of DOLAP and ER. His current research interests include data warehouse design and business intelligence, in particular multidimensional modeling, OLAP preferences, and collaborative business intelligence.