



Research School for Operations  
Management and Logistics

**Using past experience to solve new problems: Case-Based Reasoning for root cause analysis in a distributed manufacturing environment**

**Mark van der Pas**

Case-Based Reasoning (CBR) is a proven method for solving problems by using past experience. However, case representations in a manufacturing environment are often complex, and require data and knowledge that are distributed over multiple sources. These characteristics lead to challenges when applying CBR in a manufacturing environment. In this presentation I will describe the framework that I have been and will be working on during my PhD. This framework includes various steps addressing challenges in collecting data for building a case representation and subsequently comparing multidimensional production traces for retrieving similar cases. A combination of techniques from different communities, including Case-Based Reasoning and Semantic Web, are applied in those steps.