

Research School for Operations Management and Logistics

Logistic Optimization in Retail: Smart Algorithms in Inventory Management Arnoud Wellens – KU Leuven

Large Retailers are striving for better performing heuristics and even optimal policies for their logistics, inventory management and workflow. The combination of cheap computing power enabled by cloud computing and the large amounts of free data, facilitate the use of machine learning and advanced analytics. The latest breakthroughs in this field of Artificial Intelligence could possible help the search for efficiency and be leveraged to enable optimization of the retail supply chain. My main research issue consists of applying these techniques in the field of Operations Management. The includes transport optimization as well as in-store inventory replenishment. By improving the logistics efficiency, improvements can be obtained in costs as well as sustainability. I am currently looking at Deep Learning and Deep Reinforcement learning to solve forecasting and Inventory Management problems.