

The Hong Kong University of Science and Technology
Department of Information Systems,
Business Statistics and Operations Management

Seminar Announcement

Making Better Fulfillment Allocation Decisions on the Fly

by

Professor Stephen C. Graves
Abraham J. Siegel Professor of Management Science
Massachusetts Institute of Technology

Date: Tuesday, 12 October 2010

Time: 4:00 – 5:00 pm

Venue: Room 4379, ISOM Conference Room (Lift 17/18)

~~~~~ All interested are welcome ~~~~~

**Abstract:**

Online retailers manage complicated distribution networks, serving customers with heterogeneous service time requirements. What is the best way to fulfill each of these customers' orders for items with low inventory levels? We partner with an online retailer to examine this question. We find the value of the improvement gap by comparing a greedy strategy with an ex post facto optimization. We then develop an approximate dynamic programming heuristic and evaluate its performance on toy and actual examples. (joint research with Jason Acimovic)

**Biography:**

Stephen C. Graves is the Abraham J. Siegel Professor of Management Science at MIT. Graves received his A.B. and M.B.A. from Dartmouth College and completed his Ph.D. in operations research from the University of Rochester. Since 1977 he has been a faculty member at the MIT Sloan School of Management. He has served as a deputy dean at the MIT Sloan School, 1990 – 1993 and the co-director of the MIT Leaders for Manufacturing (LFM) Program (1989- 1990 and 1994 – 2001) and the System Design and Management (SDM) Program (1999 – 2001). He served a two-year term as the Chair of the MIT Faculty, 2001 – 2003. He has joint faculty appointments with both the Mechanical Engineering Department and the Engineering Systems Division at MIT. His primary research interests are in the design and planning of manufacturing systems and supply chains; recent efforts have considered supply-chain optimization, the evaluation of manufacturing flexibility and various tactical issues arising in e-retailing. As of January 2009 he is the editor-in-chief of *Manufacturing & Services Operations Management*, the INFORMS journal for operations management. He has been selected as an INFORMS Fellow, a MSOM Fellow and a POMS Fellow.