



Business Process Management Research Group
Faculty of Science and Technology
Queensland University of Technology

BPM Seminar Series

Probabilistic Process Mining with Dynamic Bayesian Networks

Dominic Breuker

Department of Information Systems, University of Muenster
dominic.breuker@qut.edu.au

THU, 26 March 2011, 2.00-3.00pm, QUT, 126 Margaret Street, Level 6, Room 608

Abstract Usually, business process models are created and designed by business process analysts, for instance during workshops with domain experts. An alternative way, driven by the huge amount of data from available from today's information systems, is to analyse log-data in order to learn about the underlying process which is generating it. Many different algorithms and techniques have been developed in the past to achieve this goal. Several complications like multiple activities having the same label or erroneous symbols in log-files have been identified that may reduce the quality of a mined process model. I will present an approach to process mining that aims at dealing with most of the problems identified in the literature. In contrast to most of the existing methods, it is based on a probabilistic model estimated from log-data.

Speaker Dominic Breuker is working as a research assistant at the Chair of for Information Systems and Information Management at University of Muenster, Germany. Currently, he is a Visiting Fellow at the Queensland University of Technology, Brisbane, Australia. His research interests include formals methods in business process management as well as measurement of productivity in the service sector. His research has been published at some IS conferences including ECIS, WI, ACIS, AMCIS and HICSS.

