**AAI Advanced Analytics Seminar Series on 10/08/2012**

**Seminar Title:** Grammars and Topic Models
**Speaker:** Professor Mark Johnson, Dept of Computing, Macquarie University
**Date and Time**: 1:30pm to 3:00pm, the 10th of August 2012 (Friday)
**Seminar Room:** UTS Blackfriars Campus Building 05 CC05.GD.02 (5 minutes walk from the Tower Building CB01 of UTS)
**Seminar Chairman:** Longbing Cao (longbing.cao@uts.edu.au)

**Abstract:** Context-free grammars have been a cornerstone of theoretical computer science and computational linguistics since their inception over half a century ago. Topic models are a newer development in machine learning that play an important role in document analysis and information retrieval.   It turns out there is a surprising connection between the two that suggests novel ways of extending both grammars and topic models.   After explaining this connection, I go on to describe extensions which identify topical multi-word collocations and automatically learn the internal structure of named-entity phrases. These new models have application in text data mining and information retrieval.

**Short biography of the speaker:** Mark Johnson is Professor of Language Sciences and Director of Macquarie University's Centre for Language Sciences.   He returned to Australia in 2009 after spending over two decades at Brown University in the USA.

**Overview to This Seminar Series**
The Advanced Analytics Seminar Series presents the latest theoretical advancement and empirical experience in a broad range of interdisciplinary and business-oriented analytics fields. It covers topics related to data mining, machine learning, statistics, bioinformatics, behavior informatics, marketing analytics and multimedia analytics. It also provides a platform for the showcase of commercial products in ubiquitous advanced analytics. Speakers are invited from both academia and industry. It opens regularly on every Friday afternoon at the garden-like UTS Blackfriars Campus. You are warmly welcome to attend this seminar series.

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