

Emergence in a marriage market

This project will build on the work done by Lyndon Walker to examine and model the influences, prevalence and underlying drivers of inter-ethnic cohabitation in New Zealand through the period of 1981 to 2006. He uses statistical modelling and social simulation techniques on New Zealand Census data to examine the partnership process itself. Building on his work, this project will investigate the interaction between macro patterns of partnership and the micro-level choices of individuals.

The focus of this project is on the phenomenon of emergence. In particular the extent to which partnering choices of individuals are influenced, or possibly even constrained, by what they observe in the society around them which will in turn shape the future structure of the society and its influence on the following generation. In particular the aim is to use agent based modelling to characterise these macro-micro linkages.

References

Walker, Lyndon. 'Modelling Inter-Ethnic Partnerships in New Zealand 1981-2006: A Census-Based Approach', PhD Thesis, University of Auckland, 2010.

Helbing, D., Wenjian Yu, and Heiko Rauhut. 'Self-Organization and Emergence in Social Systems: Modeling the Coevolution of Social Environments and Cooperative Behavior', in **Journal of Mathematical Sociology**, Vol. 35, 2011.