Recent Conferences that had some presentations about ABM

Collected by Anya for GTMooSSIG

1. Proceedings of Energy Systems in Transitions, Karlsruhe, Germany, 2013

Manfred Paier, Doris Schartinger, Alexander Kaufmann, Roman Seidl, Ernst Gebetsroither, Manuela Korber, Klaus Kubeczko, Michael Barber

Distributed energy resources: an agent-based model of interdependent household investment decisions in electricity generation.

I think the proceeds should be available online at some point, but not yet – I have a hard copy of the abstract if necessary! Or maybe you can email the first author for more details. They are all based in Austrian Institute of Technology.

2. Environmental Psychology Conference Proceedings, Magdeburg, Germany, 2013

Steg, L., Polhill, G., Ruepert, A., Craig, T., Alonso-Betanzos, A., Sancehs-Marono N., Fontenia-Romero, O., Rodriguez-Garcia, M., & Garcia-Mira, R.

Agent-based modelling of theories of everyday pro-environmental behaviour.

Abstract.

What are the crucial conditions under which employees will act pro-environmentally in the workplace? In this presentation, we use agent-based models to explore this question by comparing formalisations of various theories of behaviour. Agent-based models allow the dynamic explicit representation of heterogeneous individuals and their interactions in a computer simulation. However, this requires theories of behaviour to be specified to a high level of detail so that they can be operationalized in an algorithm. We present the dialogue between the modellers and the psychologists through the process of formalising the theories of the latter. We illustrate examples based on decision trees, values, identity and norms, and show results of the modelling, using scenarios from back-casting exercises in a number of case studies.

I think this guy did the modelling: Gary Polhill

http://www.hutton.ac.uk/staff/gary-polhill

3. Environmental Psychology Conference Proceedings, Magdeburg, Germany, 2013

Jager, W., Janssen, M., Bockarjova, M. S

Stimulating the diffusion of electric cars: exploring policies using a theory based and empirically parameterise agent based simulation model.

Abstract:

Stimulating electric mobility is one direction in moving towards sustainability. In an empirical study (2012) the motives and perceptions of 3000 Dutch drivers on (electric) cars were investigated. These data provide a detailed view of the respondents driving behaviour, perceptions and preferences. These data is used in developing an agent based model where each individual agent is modelled according to a corresponding respondent. This simulation-model captures existence (functional), social and personal needs, addresses differences in ambition level, uncertainty tolerance and expertise, and different decision-making strategies. The simulation model is used to explore scenarios of the diffusion of electric cars, also given the on-going product improvements, e.g. in range and charging speed of electric cars, and their effect on different segments of consumers. Furthermore, the social forces are modelled addressing both, the exchange of information (social learning) as conformity and anti-conformity drives (social need). Data show that an anti-conformist orientation is important to adopt an electric car in the beginning of the diffusion process and weakens as diffusion progresses. This implies that first adopters have different sensitivities than later groups, and should be stimulated differently. The aim of the model is to provide insight in how adaptive policy should be designed, referring to which measures to direct when at what segments of consumers.

I think first author did the modelling – so might make sense to follow his publications.