

ARE YOU BUILDING AND USING THE BEST MODEL?

Stewart Robinson

Loughborough University
School of Business and Economics
Loughborough, LE11 3TU, UNITED KINGDOM

ABSTRACT

Simulation models provide a powerful means for representing, understanding, and improving the real world. But how do you know that you are building and using the best model? As modelers and analysts we tend to focus on model accuracy as a means for improving the chances that a model is valid. We assume that a more accurate model and set of results is better, and, therefore, is more likely to be believed and acted upon. But is this assumption true? Does the credibility of the results depend upon the accuracy of the model? Can a wrong model still be useful? In this talk we shall explore the relation between accuracy, validity, credibility, and usefulness. If our ultimate aim is to provide analyses that are useful, this may challenge our assumptions about what is the best model.

AUTHOR BIOGRAPHY

STEWART ROBINSON is Dean and Professor of Management Science at Loughborough University, School of Business and Economics. Previously employed in simulation consultancy, he supported the use of simulation in companies throughout Europe and the rest of the world. He is author and co-author of six books on simulation. His research focuses on the practice of simulation model development and use. Key areas of interest are conceptual modelling, model validation, output analysis, and alternative simulation methods (discrete-event, system dynamics, and agent-based). Professor Robinson is co-founder of the Journal of Simulation and the UK Simulation Workshop conference series. He was President of the Operational Research Society (2014-2015). His home page is www.stewartrobinson.co.uk and his email address is s.l.robinson@lboro.ac.uk.