

WHY MODELLING MATTERS

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ABSTRACT

There has been an explosive growth in the capabilities of discrete simulation software in the last 20 years. There is no doubt that simulation software is much easier to use and is also much more powerful than it was. Some of this improvement has been driven by advances in computer hardware and software and some by demands from users. But amid all the hype about better, faster and more powerful tools, one thing hasn't changed – the need to develop sensible models. These models need to be fit for purpose and this means, in most cases, that they help someone to understand or improve the system being simulated – if it needs to be simulated. This in turn means that the models must be developed in an appropriate timescale and have a form that makes analysis as straightforward as possible. The presentation will consider different forms of model use and relate these to what we know about model building. It may also be fun.

AUTHOR BIOGRAPHY

Mike Pidd is Professor of Management Science at Lancaster University in the UK. He has an engineering degree from Brunel University, a Masters in OR from Birmingham University and a PhD in Management Science from Lancaster University. He has a long-standing interest in the ways that models are built and used in management science. This is seen in his sole-authored books: *Computer simulation in management science* (now in its 5th edition) and *Tools for thinking: modelling in management science* (working on a 3rd edition), both published by John Wiley and in use in many countries, as well as edited works and numerous papers. He is a firm believer that the most interesting things happen on the boundary between theory and practice and also that this can be great fun. His current interests include the improvement of healthcare through modelling, including whole hospital simulation models of hospital performance, and the links between hard and soft methods in OR. Most of his recent applied work has been in the public sector. Within Lancaster University he has served as Head of the Management Science Department and as Research Dean in the Management School. He has served as President of the Operational Research Society and as Chair of the Committee of Professors in OR. Through 2008 he has Chaired the national RAE panel assessing research quality across all subjects in all the UK's business schools, so may not have so many friends in 2009.