



CORS · SCRO

Canadian Operational Research Society
Société canadienne de recherche opérationnelle

Thursday, December 12th,
2024

9:00 – 10:00 a.m. EST

CORS Micro-Event (online):

Using simulation in healthcare: the operation was successful, but did the patient get better?

Presented by

Sally Brailsford, Southampton Business School, University of Southampton, UK



Bio:

Sally is Professor of Management Science at the University of Southampton. She obtained a BSc in Mathematics from Kings College London, and then worked for several years as a nurse in the NHS before obtaining an MSc and then a PhD in Operational Research from Southampton. Her research is in the area of healthcare simulation modelling: to evaluate treatments and screening programmes, or to redesign and improve service delivery. Sally has worked for over 35 years in many different disease fields including diabetes, cancer, mental health and HIV/AIDS, in addition to emergency care and end-of-life care. From 2010-19 she was chair of the EURO Working Group on OR Applied to Health Services (ORAHS), and was a founding co-Editor-in-Chief of the OR Society journal Health Systems. She is the only three-time winner of the UK OR Society's Goodeve Medal, awarded for the best paper published in the Journal of the OR Society each year. In 2016 she was made a Companion of OR by the UK OR Society in recognition of her contribution to health OR and in 2024 she was awarded the Society's most prestigious award, the Beale Medal, for her contribution to OR research.

Abstract

Over the course of my 35-year academic career I have been involved in many projects using simulation for healthcare-related problems. Many of these projects have been 'successful', in the sense that I was able to publish scientific papers in prestigious journals based on the models I developed, but it is not clear whether these models have made much difference in the real world. Only a handful of my models have had genuine impact. In this talk I will briefly describe a few of my previous projects (good, bad and ugly) and will reflect on the nature of success in healthcare simulation from the perspective of nurse turned modeller.

Register at: <https://forms.gle/J5RrtYkNXZVMxc3k6>

Queries : president@cors.ca

Organized by: Anjali Awasthi, President CORS, CIISE, Concordia University



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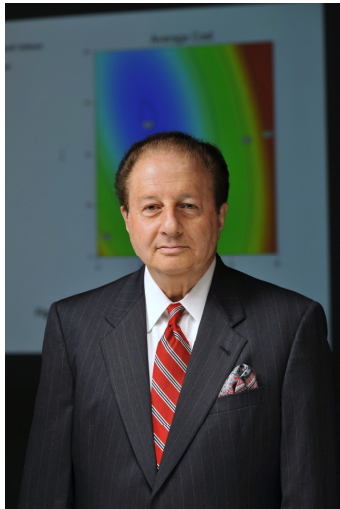
10:00 – 11:30 a.m. EST

CORS Micro-Event (online):

Twenty-Three Critical Pitfalls in Simulation Modeling and How to Avoid Them

Presented by

Averill M. Law, Ph.D., Averill M. Law & Associates, Inc., USA



Bio:

Dr. Averill M. Law is President of Averill M. Law & Associates, Inc., a company specializing in simulation seminars, simulation consulting, and software. He has presented more than 550 simulation and statistics short courses in 20 countries, including onsite seminars for AT&T, Boeing, GM, IBM, Intel, NASA, and NATO. He has written or coauthored numerous papers and books on simulation, operations research, statistics, manufacturing, and communications networks, including the book *Simulation Modeling and Analysis* that has been cited more than 25,100 times. He developed the ExpertFit® distribution-fitting software and also several videotapes on simulation modeling. He was awarded the INFORMS Simulation Society Lifetime Professional Achievement Award in 2009. Dr. Law wrote a regular column on simulation for *Industrial Engineering* magazine. He has been a tenured faculty member at the University of Wisconsin-Madison and the University of Arizona, during which time his research was sponsored by the Office of Naval Research for eight years. He has a Ph.D. in industrial engineering and operations research from the University of California at Berkeley.

Abstract

Many simulation projects are less than successful because “analysts” view simulation modeling as a complicated exercise in computer programming. This is probably caused by their education being limited to vendor training or an undergraduate simulation course that focuses on how to use a particular simulation-software package. Unsuccessful projects also result from lack of real-world experience in performing simulation studies. In this tutorial we discuss 23 critical pitfalls that can cause a simulation project to result in failure. These pitfalls fall into four categories: (1) modeling and validation, (2) simulation software, (3) modeling system randomness, and (4) design and analysis of simulation experiments.

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