



OR60 - Plenary Speakers

John Hopes



New challenges for operational research in the age of AI and big data

This talk will consider the rapidly changing environment of operational research (OR), look at its recent successes and growth, and explore how OR can raise its profile to take its rightful place at the heart of AI and big data.

The diversity of The OR Society's research publications, events, training and other activities reflects 60 years of expansion and development in the field of OR, all of which will be highlighted during our annual conference, OR60. But the world is changing rapidly and OR must continue to adapt accordingly.

In an era of fake news, it has never been more important to base decisions on sound evidence from high quality modelling and analytics. Also, with the rapid growth in computer power and the explosion in available data, the ability to provide such decision support has never been greater. Indeed, the UK Government has recognised that it is essential to our future productivity and competitiveness. It has also highlighted the importance of AI and big data in its industrial strategy along with the need to address an ongoing shortage of skills in science, technology, engineering and mathematics.

OR has a key role to play in all of this, being central to effective modelling and analytics. The challenges for OR and The OR Society are to ensure that this key role is recognised, to keep OR in the vanguard of research and innovation flowing from technology-driven change, to differentiate itself through the techniques it has brought to the world over the past 60+ years, to demonstrate the value of the OR approach in the world of AI and big data, and to play a full part in meeting the skills needs of the 21st century. Are we in the OR community doing our best to pave the way for the next generation?

Short Biography

John recently retired as EY's Global Head of Business Modelling, a practice of over 700 professionals across over 30 countries. John has over 35 years' experience of delivering OR and analytics solutions across a wide range of industry sectors. In his capacity as President of The OR Society from January 2018, he will give his presidential address at OR60

John was Vice President of the Operational Research Society from 2011-2016, President Elect in 2017, has chaired the Society's Analytics Development Group and has also been a member of the Heads of OR Forum. He started his career in Operational Research at Shell where he also worked in Business Strategy and Production Economics for North Sea oil and gas fields. He then moved into professional services, first at KPMG where he became lead partner for Business Modelling and Customer Management consulting, before moving to lead Business Modelling at EY 16 years ago.

Anna Nagurney



Operational Research: The TransfORMative Discipline for the 21st Century

Since its origins during World War II, Operational Research has continued to evolve over more than seven decades, providing solutions to numerous challenging problems. From its initial focus on military problems, Operational Research has expanded to include powerful, essential tools that can and are transforming for-profit businesses, non-profit organizations, governments, as well as our daily lives. While the general public may not know much about Operational Research, they are better off because of it.

In this talk, I will highlight advances in Operational Research in the form of networks and game theory for application areas not even dreamt of by the Founding Fathers of Operational Research, such as congested urban transportation networks, supply chains, cybersecurity, and disaster relief. I will conclude by envisioning what may be reported at OR100 by Operational Researchers.

Short Biography

Professor Anna Nagurney is the John F. Smith Memorial Professor in the Department of Operations and Information Management in the Isenberg School of Management at the University of Massachusetts Amherst (see <http://people.umass.edu/nagurney/>)

Anna is also the Founding Director of the Virtual Center for Supernetworks and the Supernetworks Laboratory for Computation and Visualization at UMass Amherst and an Affiliated Faculty Member of the Department of Civil and Environmental Engineering and the Department of Mechanical and Industrial Engineering at UMass Amherst. Anna received her AB, ScB, ScM, and PhD degrees from Brown University in Providence, Rhode Island and devotes her career to education and research that combines operations research / management science, engineering, and economics. Her focus is the applied and theoretical aspects of network systems, particularly in the areas of transportation and logistics, critical infrastructure, and in economics and finance.

Peter Checkland



A Parthian shot (friendly).

Reflections on 40 years of engagement with so-called 'social' and 'management' science, including OR 'hard' and 'soft'.

Short Biography

Peter Checkland gained a First in Chemistry at St. John's College, Oxford, where he was a Casberd Scholar, before leaving to join what was then a new science-based industry; making wholly synthetic fibres – nylon, polyester and polypropylene. He joined ICI, then the UK's largest industrial company, and spent 15 years there, working in Research and Development. When he left the company he was manager of a 100 strong group engaged in process and product development. Following this successful career with ICI, Peter joined the new University of Lancaster in 1969, when he was appointed Professor of Commercial Systems. Peter led the research programme which ran for 30 years at Lancaster. He believed strongly in practical 'action research' in real world situations outside the University and the programme capitalised on the fact that the average age of students on the one year masters course was around 30, making work possible in outside organisations which could not have been done with fresh graduates. He pioneered impact-led research, and with colleagues developed Soft Systems Methodology which enables managers to engage with real life situations. His SSM based approach to problem solving in organisations is now taught around the world, in the public, private and voluntary sectors. An eminent scholar, his publications are now classic texts and the International Council for Systems Engineering named him as one of the most influential people in the field. He also served as Chairman of Lancaster University Management School.