

UNCERTAINTY: FROM INSIGHT TO ACTION

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Presentation abstract

Uncertainty: An introduction

Uncertainty is ubiquitous. In our private lives we decide where to go to university, what to study, what job to take, who to marry, whether to have children, all in the face of considerable, often irreducible, uncertainty. Governments, private firms and other organizations face similar challenges. This talk will briefly identify many of the principle sources of uncertainty, discuss strategies for characterizing and analyzing uncertainty, outline how people think about and perceive uncertainty, and then summarize methods for making decisions in the face of uncertainty.

Biography

Granger Morgan is Professor and Head of the Department of Engineering and Public Policy at Carnegie Mellon University where he is also University and Lord Chair Professor in Engineering. He is also a Professor in the Department of Electrical and Computer Engineering and in The H. John Heinz III School of Public Policy and Management. Professor Morgan holds a BA from Harvard College (1963) where he concentrated in Physics, an MS in Astronomy and Space Science from Cornell (1965) and a Ph.D from the Department of Applied Physics and Information Sciences at the University of California at San Diego (1969). He is a member of the US National Academy of Science, a Fellow in several professional societies, and is involved in a wide variety of advisory roles. His research addresses problems in science, technology and public policy. Much of it has involved the development and demonstration of methods to characterise and treat uncertainty in quantitative policy analysis. He works on risk analysis, management and communication; on problems in climate change and moving to a low-carbon energy system, focused particularly on electric power; on improving health, safety, and environmental regulation; and on several other topics in technology and public policy.