Universities as Complex Enterprises. How Academia Works, Why It Works These Ways, and Where the University Enterprise Is Headed. Stevens Institute Series on Complex Systems and Enterprises

Description: Explores the nature of academic enterprises, including why they work the way they do and where such enterprises are headed, with the goal of gaining insights into where change can and will happen.

This book looks at universities from a whole-enterprise perspective. It explores the steady escalation of the costs of higher education and uses a computational economic model of complex academic enterprises. This model includes component models of research, teaching, administration, and brand value. Understanding the relationships among practices, processes, structure, and ecosystem provides the basis for transforming academia, leveraging its strengths and overcoming its limitations. More specifically, this architecture helps the reader understand how various elements of the enterprise system either enable or hinder other elements of the system, all of which are embedded in a complex behavioral and social ecosystem. Each topic is explored in terms of the levels of the architecture at which it primarily functions. Levers of change within each area are discussed, using many experiences of pursuing such issues in a range of academic enterprises.

- Provides a new methodology by taking a more systems-oriented approach to education systems as a whole
- Shows how various elements of the enterprise system either enable or hinder other elements of the system
- Offers alternative strategies for transformation of academic enterprises

Universities as Complex Enterprises: How Academia Works, Why It Works These Ways, and Where the University Enterprise Is Headed is a reference for systems scientists and engineers, economists, social scientists, and decision makers.

William B. Rouse is the Alexander Crombie Humphreys Chair within the School of Systems & Enterprises and Director of the Center for Complex Systems and Enterprises at Stevens Institute of Technology, Hoboken, New Jersey. He is also Professor Emeritus, and former Chair, of the School of Industrial and Systems Engineering at the Georgia Institute of Technology, Atlanta, Georgia. Rouse has written hundreds of articles and book chapters, and has authored many books, including most recently Modeling and Visualization of Complex Systems and Enterprises (Wiley, 2015).

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