Systems Thinking, Systems Practice

From SEBoK
Systems Thinking, Systems Practice


**Usage**

This source is considered a primary reference for the following articles:

- Foundations of Systems Engineering
- Systems Thinking
- History of Systems Science
- Types of Systems
- Systems Approach Applied to Engineered Systems
- Applying the Systems Approach
- Overview of the Systems Approach
- Socio-Technical Features of Systems of Systems
- Systems Engineering: Historic and Future Challenges
- Systems Approaches
- Systems Science

**Annotation**

Peter Checkland is an INCOSE Pioneer and one of the world's most respected authorities on systems theory and how systems theory translates into practical application. This book is the definitive reference for the soft systems aspects of systems thinking and systems science. It also provides a review and background on the other aspects of systems thinking and how soft systems is related to them. One of Checkland's points of emphasis is the concept of the system from the observer's point of view.

This book provides the theory behind the soft system movement in system science. It deals with a range of specific system concepts, primarily form a soft systems perspective, but including a good general overview of hard systems. In *Systems Thinking, Systems Practice* (Checkland 1999) proposed one of the earliest classification systems. It provides a basic and useful classification of systems. He proposed five classifications: natural systems, designed physical systems, designed abstract systems, human activity systems and transcendental systems. This book also provides the basis for the systems approach as the basis for exploring problems in general and for defining systems to resolve the problem and explains how emergence results from the holistic view of a complex system. This book provides the basis for viewing Systems Engineering as the application of the Systems Approach. Checkland defines engineering in this context as the process of putting anything together in an intelligent way. It introduced the soft systems methodology which challenged conventional ideas to address messy problems of socio-technical systems.

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