

Unambiguous categories of systems in terms of complexity and control

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Abstract

This paper provides unambiguous tightly defined categories of systems in terms of their complexity and control. It argues for these very specific definitions in terms of the validity of the approaches used to manage such systems. In doing so, it draws attention to a lack of validity of some systems approaches as applied to particular systems. The paper includes and defines an additional and new category of systems complexity, 'hyper-complex' systems. The paper draws attention the lack of focus by systems researchers and practitioners on a key area of systems theory and management, 'coercive' systems, which, though missing in the systems research and management literature, is essential to the focus of many systems areas in management, politics, health systems, ICT, urban planning, smart systems, transport, social systems and environmental and industrial management. In addressing this lack of attention to coercive systems, the paper outlines the basis of a new systems methodic developed by the author to control and manage complex systems, particularly in the coercive realm.