



Faculty of Design

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## Resetting Growth Curves

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**RSD8**

**2019**  
**Chicago**

**Resetting  
Growth  
Curves**

**Perin  
Ruttonsha**



UNIVERSITY OF  
**WATERLOO**

**“Almost all existing approaches to the challenge of global sustainability focus on relatively specific issues, such as the environmental consequences of future energy sources, the economic consequences of climate change, and the social impact of future energy and environmental choices. While such focused studies are of obvious importance and where most of our research efforts should be directed, they are not sufficient. They focus primarily on the trees and risk missing the forest.”**

*(West, Scale, 2017, p.412)*



*@ P. Ruttonsha*

**Systematizing**

**Problem**

**Solving for**

**Transition**

**Synchronizing**

**Social with**

**Ecological**

**Systems**

**Kate  
Raworth**

**Doughnut  
Economics**

**Stockholm  
Resilience  
Centre**

**Planetary  
Boundaries**

**The Rockefeller  
Foundation-  
Lancet  
Commission on  
Planetary  
Health**

**Planetary  
Health**

**United  
Nations**

**Sustainable  
Development**

*@ P. Ruttonsha*

**Conditions**

**Processes**

**Nature**

**History**

**Concepts**

**Balancing Among  
Planetary, Socio-Ecological  
Systems Dynamics**

**Methodologies**

**Evolving Regenerative  
Science, Innovation  
and Governance**

**Analyses**

**Profiling  
Emergent  
Patterns**

**Applications**

**Reorganizing  
Multiscale  
Systems**



**"An evolutionary theory seeks to understand a phenomenon by describing the processes that brought that phenomenon into being and that generate the transformations it successively undergoes."**

*(Lane et al., Complexity Perspectives in Innovation and Social Change: From Population to Organization Thinking, 2009, p.12)*





The order and dynamics of social and ecological systems can be compared on similar foundations, as constituents of a shared living world (see Fritjof Capra, *Web of Life*, 1996)

Challenges for sustainability have arisen primarily against the backdrop of the accelerating complexity of human life on Earth, over time, including aspects of consciousness, culture, and power (see David Christian, *Origin Story*, 2004)

Social network interactions generate collective productivities and economies of scale, which perpetuate super-exponential acceleration of socioeconomic activities (see Geoffrey West, *Scale*, 2017)



@ P. Ruttonsha