Sustainability Science Journal - Special Feature

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People, Technology, and Governance for Sustainability: the contribution of Systems and Cyber-systemic thinking

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Feature Editors

Prof. Sergio Barile, Sapienza University of Rome
Prof. Fabio Orecchini, Guglielmo Marconi University, IASS Italian Association for Sustainability Science
Prof. Marialuisa Saviano, University of Salerno, IASS Italian Association for Sustainability Science
Dr. Francesca Farioli, IASS Italian Association for Sustainability Science

Handling Editor

Prof. Marialuisa Saviano, msaviano@unisa.it

Aim of the Special Feature

The Sustainability Science journal's mission is "providing a platform for building sustainability science as a new academic discipline which can point the way to a sustainable global society by facing challenges that existing disciplines have not addressed."
This Special Feature aims to offer a contribution to the development of general reference frameworks that can support the understanding of complex phenomena related to sustainability and sustainable development that cannot be effectively faced by adopting existing disciplines in isolation.
In particular, it is expected to serve the journal's aim of understanding "interactions between global, social, and human systems, the complex mechanisms that lead to degradation of these systems, and concomitant risks to human well-being."
It represents a call for the contribution of systems thinkers to the challenge of sustainability and for the adoption of systems and cyber-systemic thinking in the scientific context of Sustainability Science. It invites scholars and professionals from different disciplinary domains to join the transdisciplinary academic structure provided by the journal Sustainability Science and the discovery process that fuses the natural sciences, social sciences, economic sciences and humanities.

Introduction and topics

We live in an ever-increasing unsustainable world in which sustainability shows to be a complex multi-dimensional and multi-stakeholder problem very hard to face by adopting a single disciplinary perspective. The complexity of sustainability has proven to require multi- and trans-disciplinary approaches in order to develop an inter-disciplinary body of knowledge capable of overcoming the limits of knowledge still fragmented among the multiplicity of specialized and hyper-specialized disciplines. Although the academic landscape of sustainability science has constantly evolved over the years, shifting from discussions focused on specialized fields to an interdisciplinary debate that pursues a comprehensive understanding of social, economic and

ecological systems, there is still much work to do. Dominant approaches oriented to problem solving have reduced complex problems to the application of techno-centric knowledge and pseudo-solutions.

Any phenomenon of reality relevant to the goals of sustainability and sustainable development is characterized by highly interconnected dynamics that involve a variety of ecological, social and economic dimensions that cannot be effectively analysed in isolation. Sustainability Science needs to develop general frameworks of reference for promoting a shared vision of a sustainable future that integrates the view of social, ecological and economic systems. The complex adaptive nature of social-ecological systems, on the one hand, and socio-technical systems, on the other hand, makes inadequate approaches that focus on the analysis of parts instead of reading the interconnected dynamics of the whole. Governance, in what is ever more widely recognized as the 'Anthropocene', calls for a critical reflexion of our past thinking, practices, institutions, and patterns of investment.

In this context, systems thinking can contribute to disclose sustainability problems that are deeply rooted in our societal structures and culture. Explanations of unsustainability at this level derive from an imbalance between limited cognitive, emotional and organizational capabilities of individual and institutions on the one hand, and overly complex and high-risk technologies and production systems on the other hand. At another level, systems thinking can help to disclose the epochal conditions of possibility of the crisis. Both levels are needed to understand the deep dynamics of unsustainability. To be effectively addressed, the challenge of sustainability requires research and education move from a merely descriptive-analytic mode towards a transformational one. These fundamental requirements imply a strong collaborative commitment of Science, Policy and Society towards the envisioning and realization of a Sustainable Future.

On the basis of these premises, this Special Feature calls for contributions from different disciplinary domains that have a common vision of a Sustainable Future and adopt general frameworks of reference that can be easily shared among scholars and professionals in order to contribute to the building of a comprehensive body of knowledge for Sustainability Science.

Approaches based on systems and cyber-systemic thinking are expected to be adopted both for theoretical and empirical contributions as well as conceptual frameworks. Topics of interest are related to the following:

- Complexity and sustainability
- Smartness and sustainability
- Paradigmatic changes for sustainability
- Systems approaches to sustainability
- Cyber-systemic thinking for sustainability
- Interactions in and between complex adaptive systems
- Governance in the Anthropocene
- The multi-disciplinarity of Sustainability Science
- The inter-disciplinarity of Sustainability Science
- The trans-disciplinarity of Sustainability Science
- Integrated perspectives for Sustainability Science
- Boundary-crossing interaction and co-creation models for sustainability
- The role of Education for Sustainable Development
- The role of firms in Sustainable Development
- Values, capabilities and competences for implementing sustainability
- The role of technology and ICT in a more sustainable world
- Institutional barriers to Sustainability Science
- Science-Policy-Industry collaboration for sustainability
- Helix models of governance for sustainability
- Knowledge co-creation models for sustainability

Authors guidelines

http://www.springer.com/environment/environmental+management/journal/11625?detailsPage=pltci_728046

Submission guidelines

For submission through EM system, please register in EM system (below link) and submit your article selecting the SF title. You can see author tutorial on right side of the registration page.

Please, tag your submission with the SF tag "People, Technology, and Governance for Sustainability"..

http://www.editorialmanager.com/sust/mainpage.html

Dates and deadline

Opening of the submission through the EM system: **1st June 2017**
Deadline for submission of expected manuscripts: **30th October 2017**
Date of issue publication: about **Mid-2018**

For any queries about the SF, please do not hesitate to contact the ***Handling Editor Marialuisa Saviano*** *msaviano@unisa.it.*

For for assistance with EM system, please contact Anitha Kamaraj - Anitha.Kamaraj@springer.com