

Transdisciplinary Sustainability Studies A Heuristic Approach

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Design for Sustainability (Open Access) - Fabrizio Ceschin 2019-08-21

This book discusses the most significant ways in which design has been applied to sustainability challenges using an evolutionary perspective. It puts forward an innovation framework that is capable of coherently integrating multiple design for sustainability (DfS) approaches developed so far. It is now widely understood that design can and must play a crucial role in the societal transformations towards sustainability. Design can in fact act as a catalyst to trigger and support innovation, and can help to shape the world at different levels: from materials to products, product-service systems, social organisations and socio-technical systems. This book offers a unique perspective on how DfS has evolved in the past decades across these innovation levels, and provides insights on its promising and necessary future development directions. For design scholars, this book will trigger and feed the academic debate on the evolution of DfS and its next research frontiers. For design educators, the book can be used as a supporting tool to design courses and programmes on DfS. For bachelor's and master's level design, engineering and management students, the book can be a general resource to provide an understanding of the historical evolution of DfS. For design practitioners and businesses, the book offers a rich set of practical examples, design methods and tools to apply the various DfS approaches in practice, and an innovation framework which can be used as a tool to support change in organisations that aim to integrate DfS in their strategy and processes.

Human Rights and Sustainability - Gerhard Bos 2016-02-26
The history of human rights suggests that individuals should be empowered in their natural, political, political, social and economic vulnerabilities. States within the international arena hold each other responsible for doing just that and support or interfere where necessary. States are to protect these essential human vulnerabilities, even when this is not a matter of self-interest. This function of human rights is recognized in contexts of intervention, genocide, humanitarian aid and development. This book develops the idea of environmental obligations as long-term responsibilities in the context of human rights. It proposes that human rights require recognition that, in the face of unsustainable conduct, future human persons are exposed and vulnerable. It explores the obstacles for long-term responsibilities that human rights law provides at the level of international and national law and challenges the question of whether lifestyle restrictions are enforceable in view of liberties and levels of wellbeing typically seen as protected by human rights. The book will be of interest to postgraduates studying Human Rights, Sustainability, Law and Philosophy.

The People, Place, and Space Reader - Jen Jack Giesecking

2014-04-16

The People, Place, and Space Reader brings together the writings of scholars, designers, and activists from a variety of fields to make sense of the makings and meanings of the world we inhabit. They help us to understand the relationships between people and the environment at all scales, and to consider the active roles individuals, groups, and social structures play in creating the environments in which people live, work, and play. These readings highlight the ways in which space and place are produced through large- and small-scale social, political, and economic practices, and offer new ways to think about how people engage the environment in multiple and diverse ways. Providing an essential resource for students of urban studies, geography, sociology and many other areas, this book brings together important but, till now, widely dispersed writings across many inter-related disciplines. Introductions from the editors precede each section; introducing the texts, demonstrating their significance, and outlining the key issues surrounding the topic. A companion website, PeoplePlaceSpace.org, extends the work even further by providing an on-going series of additional reading lists that cover issues ranging from food security to foreclosure, psychiatric spaces to the environments of predator animals.

Remapping Performance - Jan Cohen-Cruz 2015-07-13

Completing a trilogy of works by Jan Cohen-Cruz, *Remapping Performance* focuses on the work of artists and experts who collaborate across fields to address social issues. The book explores work of a range of artists who employ artistic training, methodologies and mind-sets in their work with experts from other sectors such as medicine and healthcare and from other disciplines, to draw an expanded map of performance platforms including university/ community partnerships, neighbourhood-bases, and cultural diplomacy. Case studies include ArtSpot Productions/Mondo Bizarro's *Cry You One* about climate change in southern Louisiana, incorporating theatrics and organizing; Michael Rohd/Sojourn Theatre's social and civic practices; Anne Basting's University of Wisconsin-Milwaukee-based integration of performance and creative aging; and the collaborative cultural diplomacy experiment, smARTpower. Short companion pieces add expertise from Helen Nicholson, Todd London, Julie Thompson Klein, Nancy Cantor, Maria Rosario Jackson, and Penny Von Eschen. Jan Cohen-Cruz ends with suggestions for fully integrating performance in cross-sector initiatives. This latest book by a leading figure in engaged/ applied theatre and performance builds on its predecessors by offering a future-oriented perspective, a vision of art and performance interacting with a range of social sectors and with an emphasis on HE in such partnerships, and will be a 'must-read' for all students and scholars working in this field.

Transdisciplinary Research and Sustainability - Martina Padmanabhan 2017-10-12

Transdisciplinarity is a new way of scientifically meeting the challenges of sustainability. Indeed, interdisciplinary collaboration and co-operation with non-academic 'practice partners' is at the core of this; creating contextualised, socially relevant knowledge about complex real-world problems. Transdisciplinary Research and Sustainability breaks new ground by presenting transdisciplinary research in practice, drawing on recent advances by the vibrant transdisciplinary research communities in the German-speaking world. It describes methodological innovations developed to address wide-ranging contemporary issues including climate change adaptation, energy policy, sustainable agriculture and soil conservation. Furthermore, the authors reflect on the challenges involved in integrating non-academic actors in scientific research, on the tensions that arise in the encounter of theory and praxis, and on the inherently normative, political nature of sustainability research. Highlighting the need for academic institutions to be transformed to reflect transdisciplinarity, this timely volume will appeal to postgraduate students and postdoctoral researchers interested in fields such as Sustainability Science, Transdisciplinary Studies and Philosophy of Science.

Routledge Handbook of Urban Forestry - Francesco Ferrini
2017-03-31

More than half the world's population now lives in cities. Creating sustainable, healthy and aesthetic urban environments is therefore a major policy goal and research agenda. This comprehensive handbook provides a global overview of the state of the art and science of urban forestry. It describes the multiple roles and benefits of urban green areas in general and the specific role of trees, including for issues such as air quality, human well-being and stormwater management. It reviews the various stresses experienced by trees in cities and tolerance mechanisms, as well as cultural techniques for either pre-conditioning or alleviating stress after planting. It sets out sound planning, design, species selection, establishment and management of urban trees. It shows that close interactions with the local urban communities who benefit from trees are key to success. By drawing upon international state-of-art knowledge on arboriculture and urban forestry, the book provides a definitive overview of the field and is an essential reference text for students, researchers and practitioners.

Critiquing Sustainability, Changing Philosophy - Jenneth Parker
2014-03-21

To increasing numbers of people, sustainability is the key challenge of the twenty-first century. In the many fields where it is a goal, persistent problems obstruct the efforts of those trying to make a difference. The task of this book is to provide an overview of the current state of philosophy in the context of what philosophy is, could be or should be – in relation to sustainability and the human future on Earth. The book is conceived as a contribution to the UN Decade of Education for Sustainable Development, helping to link work on philosophy and sustainability. *Critiquing Sustainability, Changing Philosophy* focusses on the importance of philosophical work to the formation and effectiveness of global civil society and social movements for sustainability in the context of the Anthropocene age of the Earth. It takes a transdisciplinary systems approach that challenges philosophy and concludes by proposing a greatly enhanced role for philosophy in contributing to global public reason for sustainability. This book will be of interest to philosophers, sustainability practitioners and thinkers, policy makers and all those engaged in the global movement for sustainability.

Energy and Transport in Green Transition - Atle Midttun
2015-06-26

This book breaks new ground in the studies of green transition. It frames the ongoing transformation in terms of a "battle of modernities" with the emerging vision of ecomodernity as the final destination. It also offers a systematic exploration of the potential for extensive transformation of carbon-intensive sectors – with a focus on energy and transport – towards a low or post-carbon economy. The book does so in a comparative perspective, by pointing to a diversity of techno-economic and institutional solutions in the mature Western economies, and in the rapidly growing East and developing South. The contributors highlight a broad spectrum of available alternatives as well as illuminate conflicting interests involved. They also demonstrate how solutions to the climate challenge require parallel technological and governance innovation. The book advocates a new, overarching vision and agenda of ecomodernity – based on a synergistic paradigm-shift in industry, politics and culture – to trigger and sustain the ecological innovation necessary to tip development in a green direction. This vision cannot be monolithic; rather, it should reflect the diverse interests and conditions of the global population. This book is aimed at researchers and postgraduate students of energy, transport, environmental and climate policies, as well as development, environment, innovation and sustainability.

The Politics of Sustainability - Dieter Birnbacher
2015-05-15

Responsibility for future generations is easily postulated in the abstract but it is much more difficult to set it to work in the concrete. It requires some changes in individual and institutional attitudes that are in opposition to what has been called the "systems variables" of industrial society: individual freedom, consumerism, and equality. *The Politics of Sustainability from Philosophical Perspectives* seeks to examine the motivational and institutional obstacles standing in the way of a consistent politics of sustainability and to look for strategies to overcome them. It argues that though there have been significant changes in individual and especially collective attitudes to growth, intergenerational solidarity and nature preservation, it is far from certain whether these will be sufficient to encourage politicians into giving sustainable policies priority over other legitimate concerns. Having a philosophical approach as its main focus, the volume is at the same time interdisciplinary in combining political, psychological, ecological and economic analyses. This book will be a contribution to the joint effort to meet the theoretical and practical challenges posed by climate change and other impending global perils and will be of interest to students of environmental studies, applied ethics and environmental psychology.

Climate Change Governance and Adaptation - Anamika Barua
2018-08-29

Climate change adaptation in South Asia is redefining the roles of different actors in the governance processes. The existing governance lack capacity, knowledge, and leadership skills to manage the uncertainties and challenges posed by climate change. This book aims to explain how the governance of climate change adaptation and mitigation is being shaped in the region and how climate change is impacting upon the governance of natural resources. Although the focus is on South Asia, the editors draw a wide range of contributions from northern and southern communities and across various agro-ecological contexts. *Climate Change Governance and Adaptation: Case Studies from South Asia* sees the changing climate not only as an environmental problem but as a societal challenge and discusses the governance challenges from an interdisciplinary social science perspective across different levels: local, state, and national. Discusses also the challenges and

opportunities for increasing the resilience of the society through effective governance around climate change. A top down approach to govern climate change adaptation may not yield desired outcomes; instead the book emphasizes the need to integrate issues of equity, into climate governance and policies. The lessons learned from different cases across South Asia help readers have a better and deeper understanding of the relationships between governance and climate change. Given the diversity of themes covered, this book will appeal not only to researchers and practitioners in the climate change community, but also to those with a broader interest in governance processes.

Sustainability Assessment of Urban Systems - Claudia R. Binder 2020-02-29

Our world is becoming more urban. More than fifty percent of the global population now lives in cities, which poses new challenges for sustainable development. This book integrates theory and methods of sustainability assessment with concepts from systems science to provide guidelines for assessing the sustainability of urban systems. It discusses different aspects of urban sustainability, from energy and housing, to mobility and health, covering social, economic and environmental factors, as well as the various stakeholders and actors involved. The book argues for the need to find models and solutions in order to design sustainable cities of the future in light of the complexity of urban social life. Including diverse case studies from the developed and developing world, this book provides a useful reference for researchers and students from a broad range of disciplines working in the field of sustainability, as well as for environmental consultants and policy makers.

Transdisciplinarity For Sustainability - Martina M. Keitsch 2020-11-24

This volume explores interactions between academia and different societal stakeholders with a focus on sustainability. It examines the significance and potential of transdisciplinary collaboration as a tool for sustainability and the SDGs. Traditionally, academia has focused on research and education. More recently, however, the challenges of sustainable development and achieving the SDGs have required the co-production of knowledge between academic and non-academic actors. Compromising theory, methods and case studies from a broad span of transdisciplinary collaboration, *Transdisciplinarity For Sustainability: Aligning Diverse Practices* is written by specialists from various academic disciplines and represents an important step forward in systematising knowledge and understanding of transdisciplinary collaboration. They are designed to provide a roadmap for further research in the field and facilitate pursuing and realizing the SDGs. The book will appeal to researchers and postgraduate students in a variety of disciplines such as architecture, design, economics, social sciences, engineering and sustainability studies. It will also be of significant value to professionals who are engaged in transdisciplinary collaboration that supports sustainable development.

Transdisciplinary Perspectives on Transitions to Sustainability - Edmond Byrne 2016-06-17

Demonstrating how a university can, in a very practical and pragmatic way, be re-envisioned through a transdisciplinary informed frame, this book shows how through an open and collegiate spirit of inquiry the most pressing and multifaceted issue of contemporary societal (un)sustainability can be addressed and understood in a way that transcends narrow disciplinary work. It also provides a practical exemplar of how far more meaningful deliberation, understandings and options for action in relation to contemporary sustainability-related crises can emerge than could otherwise be achieved. Indeed it helps demonstrate how only through a

transdisciplinary ethos and approach can real progress be achieved. The fact that this can be done in parallel to (or perhaps underneath) the day-to-day business of the university serves to highlight how even micro seed initiatives can further the process of breaking down silos and reuniting C.P. Snow's 'two cultures' after some four centuries of the relentless project of modernity. While much has been written and talked about with respect to both sustainability and transdisciplinarity, this book offers a pragmatic example which hopefully will signpost the ways others can, will and indeed must follow in our common quest for real progress.

The SAGE Handbook of Curriculum, Pedagogy and Assessment - Dominic Wyse 2015-12-03

The research and debates surrounding curriculum, pedagogy and assessment are ever-growing and are of constant importance around the globe. With two volumes - containing chapters from highly respected researchers, whose work has been critical to understanding and building expertise in the field - The SAGE Handbook of Curriculum, Pedagogy and Assessment focuses on examining how curriculum is treated and developed, and its impact on pedagogy and assessment worldwide. The Handbook is organised into five thematic sections, considering: · The epistemology and methodology of curriculum · Curriculum and pedagogy · Curriculum subjects · Areas of the curriculum · Assessment and the curriculum · The curriculum and educational policy The SAGE Handbook of Curriculum, Pedagogy and Assessment's breadth and rigour will make it essential reading for researchers and postgraduate students around the world.

Rethinking the Green State - Karin Bäckstrand 2015-06-12

This innovative book is one of the first to conduct a systematic comprehensive analysis of the ideals and practices of the evolving green state. It draws on elements of political theory, feminist theory, post-structuralism, governance and institutional theory to conceptualise the green state and advances thinking on how to understand its emergence in the context of climate and sustainability transitions. Focusing on the state as an actor in environmental, climate and sustainability politics, the book explores different principles guiding the emergence of the green state and examines the performance of states and institutional responses to the sustainable and climate transitions in the European and Nordic context in particular. The book's unique focus on the Nordic countries underlines the important to learn from Nordics, which are perceived to be in the forefront of climate and sustainability governance as well as historically strong welfare states. With chapter contributions from leading international scholars in political science, sociology, economics, energy and environmental systems and climate policy studies, this book will be of great value to postgraduate students and researchers working on sustainability transitions, environmental politics and governance, and those with an area studies focus on the Nordic countries.

Democratic Sustainability in a New Era of Localism - John Stanton 2014-06-27

Change and development are going on all around us. On both an international platform, as well as at the local governmental and community level, governments, decision and policy makers constantly strive to improve the world in which we live, seeking to make it better and to improve quality of life. This book focuses on such development in the context of localism in the UK. It strips the principle of local sustainability down to its constituent parts and considers the extent to which it can be said to be central to local life. As part of this, it presents the case for the importance of accountability and citizen participation in achieving objectives aligned with sustainability, and illustrates the relationships that these principles share. On this

foundation, it evaluates local government in the UK, as well as examples of community-led regeneration initiatives and bodies, and seeks to determine both the nature of their pursuit of sustainability and the extent to which accountability and citizen participation play a part in that pursuit. It shows that local sustainability is enhanced by accountability and citizen participation; those principles ensuring that local people can be central to the process. Whilst its evaluations of local democratic systems in the UK reveal certain issues as regards the extent to which this is reflected in practice, it at least demonstrates an enthusiasm and awareness of the important role that accountability and citizen participation can play in the process of local sustainability. The book is aimed at legal academics, with relevance also to students in law, environmental politics and sustainable development, as well as those working in government policy and political practice.

Science, Philosophy and Sustainability - Angela Guimaraes Pereira 2015-02-27

For science to remain a legitimate and trustworthy source of knowledge, society will have to engage in the collective processes of knowledge co-production, which not only includes science, but also other types of knowledge. This process of change has to include a new commitment to knowledge creation and transmission and its role in a plural society. This book proposes to consider new ways in which science can be used to sustain our planet and enrich our lives. It helps to release and reactivate social responsibility within contemporary science and technology. It reviews critically relevant cases of contemporary scientific practice within the Cartesian paradigm, relabelled as 'innovation research', promoted as essential for the progress and well-being of humanity, and characterised by high capital investment, centralised control of funding and quality, exclusive expertise, and a reductionism that is philosophical as well as methodological. This is an accessible and relevant book for scholars in Science and Technology Studies, History and Philosophy of Science, and Science, Engineering and Technology Ethics. Providing an array of concrete examples, it supports scientists, engineers and technical experts, as well as policy-makers and other non-technical professionals working with science and technology to re-direct their approach to global problems, in a more integrative, self-reflective and humble direction.

Beyond Interdisciplinarity - Julie Thompson Klein 2021-08-03

Beyond Interdisciplinarity examines the broadening meaning of core concept across academic disciplines and other forms of knowledge. In this book, Associate Editor of The Oxford Handbook of Interdisciplinarity and internationally recognized scholar Julie Thompson Klein depicts the heterogeneity and boundary work of inter- and trans-disciplinarity in a conceptual framework based on an ecology of spatializing practices in transaction spaces, including trading zones and communities of practice. The book includes both crossdisciplinary work (encompassing multi-, inter-, and trans-disciplinary forms) as well as cross-sector work (spanning disciplines, fields, professions, government and industry, and communities). The first section of the book defines and explains boundary work, discourses of interdisciplinarity, and the nature of interdisciplinary fields. In the second section, Klein examines dynamics of working across disciplines, including communication, collaboration, and learning with concrete examples and lessons from research projects and programs that transcend traditional fields. The closing chapter examines reasons for failure and success then presents gateways to literature and other resources. Throughout the book, Klein emphasizes the roles of contextualization and historical change while factoring

in the shifting relationship of disciplinarity and interdisciplinarity, ascendancy of transdisciplinarity, and intersections with other constructs including Mode 2 knowledge production, convergence, team science, and postdisciplinarity. The conceptual framework she provides also includes the role of boundary objects, agents, and organizations in brokering differences and creating for platforms for change. Klein further explains why translation, interlanguage, and a communication boundary space are vital to achieving intersubjectivity and collective identity. They foster not only pragmatics of negotiation and integration but also reflexivity, transactivity, and co-production of knowledge with stakeholders beyond the academy. Rhetorics of holism and synthesis compete with instrumentalities of problem solving and transgressive critiques. However, typical warrants today include complexity, contextualization, collaboration, and socially-robust knowledge. Crossing boundaries remains complex, but this book guides readers through the density of pertinent literature while expanding understandings of crossdisciplinary and cross-sector work.

The Small-Scale Fisheries Guidelines - Svein Jentoft 2017-06-10

In June 2014, FAO member-states endorsed the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (SSF Guidelines). These Guidelines are one of the most significant landmarks for small-scale fisheries around the world. They are comprehensive in terms of topics covered, and progressive, with their foundations based on human rights and other key principles. It can be anticipated that implementing the SSF Guidelines, whether at local, national, or regional levels, will be challenging. This book contains in-depth case studies where authors discuss the extent to which the Guidelines can help improve the realities of small-scale fishing men and women globally and make their livelihoods and communities more secure. This will require policy intervention and innovation, along with contributions of civil society organizations and academia. However, most of all it will necessitate the empowerment of fishing people so that they can become active participants in decision making on matters where their well-being and human rights are at stake. By endorsing the SSF Guidelines, states have committed themselves to support and facilitate this development. This book asks whether states can successfully "walk the talk," and provides advice as to how they can do so. The collection of case studies sets the platform for an interactive dialogue space for researchers, policy makers, civil society and small-scale fishing communities to start the conversation about the monitoring and evaluation of the implementation of the SSF Guidelines at local, national, regional and global levels. An added value is that it helps add focus to our work as civil society activists involved in ensuring the application of the SSF Guidelines. Naseegh Jaffer – General Secretary, World Forum of Fisher People (WFFP) This collection offers many ways in which institutions enabling small-scale fisheries can protect and promote sustainability, food security, customary tenure, self-management, and market access, while fostering such benefits as ecosystem-based management, protected areas, incorporation of local knowledge, and poverty alleviation. You will want to put this book in the hands of policy-makers and practitioners immediately -- and for years to come.

Evelyn Pinkerton – Professor, Simon Fraser University, Canada

Social Practices, Intervention and Sustainability - Yolande Strengers 2014-11-13

In an era of dramatic environmental change, social change is desperately needed to curb burgeoning consumption. Many calls to action have focused on individual behaviour or technological innovation, with

relative silence from the social sciences on other modes and methods of intervening in social life. This book shows how we can go beyond behaviour change in the pursuit of sustainability. Inspired by the 'practice turn' in consumption studies, this interdisciplinary book looks through the lens of social practice theory to explore important and timely questions about how to intervene in social life. It discusses a range of applied sustainability topics including energy consumption, housing provision, water demand, transport, climate change, curbside recycling and smart grids, seeking to redefine what intervention is, how it happens, and who or what can intervene to address the growing list of environmental calamities facing contemporary societies. These issues are explored through a range of specific case studies from Australia, the UK and the US, providing theoretical insights that are of international relevance. The book will be of interest to researchers and students in the fields of sociology, consumption studies, environmental studies, geography, and science and technology studies, as well as policy makers and practitioners seeking to intervene in social life for sustainability.

Transdisciplinary Theory, Practice and Education - Dena Fam 2018-08-27

This exciting new state-of-the art book reviews, explores and advocates ways in which collaborative research endeavours can, through a transdisciplinary lens, enhance student, academic and social experiences. Drawing from a wide range of knowledges, contexts, geographical locations and internationally renowned expertise, the book provides a unique look into the world of transdisciplinary thinking, collaborative learning and action. In doing so, the book is action orientated, reflective, theoretical and intriguing and provides a place for all of these to meet and mingle in the spirit of curiosity and imagination.

Interdisciplinary and Transdisciplinary Failures - Dena Fam 2020-11-04

Unlike other volumes in the current literature, this book provides insight for interdisciplinary and transdisciplinary researchers and practitioners on what doesn't work. Documenting detailed case studies of project failure matters, not only as an illustration of experienced challenges but also as projects do not always follow step-by-step protocols of preconceived and theorised processes. Bookended by a framing introduction by the editors and a conclusion written by Julie Thompson Klein, each chapter ends with a reflexive section that synthesizes lessons learned and key take-away points for the reader. Drawing on a wide range of international case studies and with a strong environmental thread throughout, the book reveals a range of failure scenarios for interdisciplinary and transdisciplinary projects, including: • Projects that did not get off the ground; • Projects that did not have the correct personnel for specified objectives; • Projects that did not reach their original objectives but met other objectives; • Projects that failed to anticipate important differences among collaborators. Illustrating causal links in real life projects, this volume will be of significant relevance to scholars and practitioners looking to overcome the challenges of conducting interdisciplinary and transdisciplinary research.

Creativity, Design Thinking and Interdisciplinarity - Frédéric Darbellay 2017-12-18

This book, at the crossroads of creativity, design and interdisciplinary studies, offers an overview of these major trends in scientific research, society, culture and economics. It brings together different approaches and communities around a common reflection on interdisciplinary creative design thinking. This collective effort provides a unique dialogical and convergent space that deals with the challenges and

opportunities met by researchers and practitioners working on design thinking, creativity and inter- and transdisciplinarity, or at the interface between these areas.

The Routledge Handbook of Research Methods for Social-Ecological Systems - Reinette Biggs 2021-07-29

The Routledge Handbook of Research Methods for Social-Ecological Systems provides a synthetic guide to the range of methods that can be employed in social-ecological systems (SES) research. The book is primarily targeted at graduate students, lecturers and researchers working on SES, and has been written in a style that is accessible to readers entering the field from a variety of different disciplinary backgrounds. Each chapter discusses the types of SES questions to which the particular methods are suited and the potential resources and skills required for their implementation, and provides practical examples of the application of the methods. In addition, the book contains a conceptual and practical introduction to SES research, a discussion of key gaps and frontiers in SES research methods, and a glossary of key terms in SES research. Contributions from 97 different authors, situated at SES research hubs in 16 countries around the world, including South Africa, Sweden, Germany and Australia, bring a wealth of expertise and experience to this book. The first book to provide a guide and introduction specifically focused on methods for studying SES, this book will be of great interest to students and scholars of sustainability science, environmental management, global environmental change studies and environmental governance. The book will also be of interest to upper-level undergraduates and professionals working at the science-policy interface in the environmental arena.

Envisioning futures for environmental and sustainability education - Peter Blaze Corcoran 2017-02-16

This edited collection invites educational practitioners and theorists to speculate on - and craft visions for - the future of environmental and sustainability education. It explores what educational methods and practices might exist on the horizon, waiting for discovery and implementation. A global array of authors imagines alternative futures for the field and attempts to rethink environmental and sustainability education institutionally, intellectually, and pedagogically. These thought leaders chart how emerging modes of critical speculation might function as a means to remap and redesign the future of environmental and sustainability education today. Previous volumes within this United Nations Decade of Education for Sustainable Development series have responded to the complexity of environmental education in our contemporary moment with concepts such as social learning, intergenerational learning, and transformative leadership for sustainable futures. 'Envisioning Futures for Environmental and Sustainability Education' builds on this earlier work - as well as the work of others. It seeks to foster modes of intellectual engagement with ecological futures in the Anthropocene; to develop resilient, adaptable pedagogies as a hedge against future ecological uncertainties; and to spark discussion concerning how futures thinking can generate theoretical and applied innovations within the field.

Transdisciplinary Research and Practice for Sustainability Outcomes - Dena Fam 2016-11-10

'Transdisciplinarity' is a form of research and practice that synthesises knowledge from a range of academic disciplines and from the community. There is now global interest and a significant body of work on transdisciplinarity and its potential to address the apparently intractable problems of society. This creates the opportunity for a specific focus on its practical application to sustainability issues. *Transdisciplinary Research and Practice for Sustainability Outcomes* examines the role of transdisciplinarity in the

transformations needed for a sustainable world. After an historical overview of transdisciplinarity, Part I focuses on tools and frameworks to achieve sustainability outcomes in practice and Part II consolidates work by a number of scholars on supporting transdisciplinary researchers and practitioners. Part III is a series of case studies including several international examples that demonstrate the challenges and rewards of transdisciplinary work. The concluding chapter proposes a future research pathway for understanding the human factors that underpin successful transdisciplinary research. As Emeritus Professor Valerie Brown AO notes in her Preface, this book moves transdisciplinary inquiry into the academic and social mainstream. It will be of great interest to researchers and practitioners in the fields of sustainability, qualitative research methods, environmental impact assessment and development studies.

Challenging Consumption - Anna R. Davies 2014-05-16
Sustainable consumption is a central research topic in academic discourses of sustainable development and global environmental change. Informed by a number of disciplinary perspectives, this book is structured around four key themes in sustainable consumption research: Living, Moving, Dwelling and Futures. The collection successfully balances theoretical insights with grounded case studies, on mobility, heating, washing and eating practices, and concludes by exploring future sustainable consumption research pathways and policy recommendations. Theoretical frameworks are advanced throughout the volume, especially in relation to social practice theory, theories of behavioural change and innovative visioning and backcasting methodologies. This groundbreaking book draws on some conceptual approaches which move beyond the responsibility of the individual consumer to take into account wider social, economic and political structures and processes in order to highlight both possibilities for and challenges to sustainable consumption. This approach enables students and policy-makers alike to easily recognise the applicability of social science theories.

Cities and Sustainability - Daniel Hoornweg 2016-08-25
Cities are the most likely actors to design and bring about lasting sustainability. An agreement among the world's larger cities is possible, and likely a necessary but insufficient condition to achieve sustainable development. *Cities and Sustainability* explores the ways in which cities are both the biggest threat to sustainability, and the most powerful tool to get us to sustainable development. Employing an innovative methodology to a complex issue, the book proposes new metrics and approaches that assume cities as fundamental in the search for sustainability. Providing population projections for the world's larger cities and a hierarchy of sustainable cities, the author develops two new tools: (i) a cities approach to physical and socio-economic boundaries, and (ii) sustainability costs curves. These tools are designed to be implemented in a multi-stakeholder, integrated partnership that truly maximizes the benefits of cities in the quest for sustainability. Applying the tools outlined in the book to case studies from Dakar, Mumbai, Sao Paulo, Shanghai and Toronto, this volume will be of great relevance to students, scholars and practitioners with an interest in urban and city management, climate change, and environment and sustainability more broadly.

Transition Pathways towards Sustainability in Agriculture - Lee-Ann Sutherland 2014-11-24
Based on the research of an interdisciplinary team of sociologists, geographers and economists, this book focuses on understanding farming transitions in Europe. The book discusses the importance of understanding transition pathways towards sustainability using case studies from Bulgaria, the Czech Republic, France,

Germany, Greece, Portugal and the United Kingdom. Assessing the utility of the multi-level perspective in transition theory for addressing contemporary issues, the book identifies future research needs and possible approaches, making this an essential read for researchers interested in issues of rural and agricultural change.

Responsible Research and Innovation - Robert Gianni 2018-07-27

Responsible Research and Innovation provides a comprehensive and impartial overview of the European Commission's Responsible Research and Innovation (RRI) framework, including discussion of both the meaning and aims of the concept, and of its practical application. As a governance framework for research and innovation, RRI involves four key perspectives: ethical, economic/business, legal and governance and political. The book is organised into chapters covering these different dimensions. The authors provide different viewpoints on these aspects, in order to offer guidance from experts in the field, while at the same time acknowledging the interpretative openness of the RRI frameworks.

The Oxford Handbook of Interdisciplinarity - Robert Frodeman 2017

This title provides a synoptic overview of the current state of interdisciplinary research, education, administration and management, and problem solving - knowledge that spans the disciplines and interdisciplinary fields and crosses the space between the academic community and society at large.

Transdisciplinary Sustainability Studies - Katri Huutoniemi 2014-06-05

Arising out of human-environment interaction, sustainability problems resist disciplinary categories and simple solutions. This book offers a fresh approach to practical and methodological concerns in transdisciplinary environmental and sustainability studies. It illustrates methodological means by which researchers, professionals, and decision-makers can address complex environmental issues. While scientific reasoning is mostly guided by disciplinary traditions, transdisciplinary research rests on other cognitive strategies. As it does not have a ready-made stance toward problems, figuring out what the puzzle is and what the answer might look like are crucial aspects of transdisciplinary inquiry. Through examples from environment and sustainability studies, the volume discusses heuristic schemes that can give structure to this exploration. By focusing on heuristics, rather than on methods, concepts, or general guidelines, the book argues that a problem-centered approach often resists the rigor of methodology. Learning from experience provides valuable "rules of thumb", checklists, and other cognitive schemes for making ill-defined problems more tangible. Written by an international team of authors, the chapters draw examples from dealing with issues in environmental protection, transport and climate policy, ecosystem services and disservices, environmental beliefs and attitudes, and more. Together with more theoretically oriented chapters, they show that the intellectual processes needed to tackle complex sustainability problems are as much about heuristic problem solving as they are about methodical work.

The Routledge Handbook of Political Ecology - Tom Perreault 2015-06-12

The Routledge Handbook of Political Ecology presents a comprehensive and authoritative examination of the rapidly growing field of political ecology. Located at the intersection of geography, anthropology, sociology, and environmental history, political ecology is one of the most vibrant and conceptually diverse fields of inquiry into nature-society relations within the social sciences. The Handbook serves as an essential guide to this rapidly evolving intellectual landscape. With

contributions from over 50 leading authors, the Handbook presents a systematic overview of political ecology's origins, practices and core concerns, and aims to advance both ongoing and emerging debates. While there are numerous edited volumes, textbooks, and monographs under the heading 'political ecology,' these have tended to be relatively narrow in scope, either as collections of empirically based (mostly case study) research on a given theme, or broad overviews of the field aimed at undergraduate audiences. The Routledge Handbook of Political Ecology is the first systematic, comprehensive overview of the field. With authors from North and South America, Europe, Australia and elsewhere, the Handbook of Political Ecology provides a state of the art examination of political ecology; addresses ongoing and emerging debates in this rapidly evolving field; and charts new agendas for research, policy, and activism. The Routledge Handbook of Political Ecology introduces political ecology as an interdisciplinary academic field. By presenting a 'state of the art' examination of the field, it will serve as an invaluable resource for students and scholars. It not only critically reviews the key debates in the field, but develops them. The Handbook will serve as an excellent resource for graduate and advanced undergraduate teaching, and is a key reference text for geographers, anthropologists, sociologists, environmental historians, and others working in and around political ecology.

Routledge Handbook of Urban Forestry - Francesco Ferrini
2017-03-31

More than half the world's population now lives in cities. Creating sustainable, healthy and aesthetic urban environments is therefore a major policy goal and research agenda. This comprehensive handbook provides a global overview of the state of the art and science of urban forestry. It describes the multiple roles and benefits of urban green areas in general and the specific role of trees, including for issues such as air quality, human well-being and stormwater management. It reviews the various stresses experienced by trees in cities and tolerance mechanisms, as well as cultural techniques for either pre-conditioning or alleviating stress after planting. It sets out sound planning, design, species selection, establishment and management of urban trees. It shows that close interactions with the local urban communities who benefit from trees are key to success. By drawing upon international state-of-art knowledge on arboriculture and urban forestry, the book provides a definitive overview of the field and is an essential reference text for students, researchers and practitioners.

Transdisciplinary Perspectives on Transitions to Sustainability - Edmond Byrne 2016-06-17

Demonstrating how a university can, in a very practical and pragmatic way, be re-envisioned through a transdisciplinary informed frame, this book shows how through an open and collegiate spirit of inquiry the most pressing and multifaceted issue of contemporary societal (un)sustainability can be addressed and understood in a way that transcends narrow disciplinary work. It also provides a practical exemplar of how far more meaningful deliberation, understandings and options for action in relation to contemporary sustainability-related crises can emerge than could otherwise be achieved. Indeed it helps demonstrate how only through a transdisciplinary ethos and approach can real progress be achieved. The fact that this can be done in parallel to (or perhaps underneath) the day-to-day business of the university serves to highlight how even micro seed initiatives can further the process of breaking down silos and reuniting C.P. Snow's 'two cultures' after some four centuries of the relentless project of modernity. While much has been written and talked about with respect to both sustainability and transdisciplinarity, this book offers a pragmatic

example which hopefully will signpost the ways others can, will and indeed must follow in our common quest for real progress.

Strategies for Team Science Success - Kara L. Hall
2019-11-13

Collaborations that integrate diverse perspectives are critical to addressing many of our complex scientific and societal problems. Yet those engaged in cross-disciplinary team science often face institutional barriers and collaborative challenges. Strategies for Team Science Success offers readers a comprehensive set of actionable strategies for reducing barriers and overcoming challenges and includes practical guidance for how to implement effective team science practices. More than 100 experts--including scientists, administrators, and funders from a wide range of disciplines and professions-- explain evidence-based principles, highlight state-of-the-art strategies, tools, and resources, and share first-person accounts of how they've applied them in their own successful team science initiatives. While many examples draw from cross-disciplinary team science initiatives in the health domain, the handbook is designed to be useful across all areas of science. Strategies for Team Science Success will inspire and enable readers to embrace cross-disciplinary team science, by articulating its value for accelerating scientific progress, and by providing practical strategies for success. Scientists, administrators, funders, and others engaged in team science will also leave equipped to develop new policies and practices needed to keep pace in our rapidly changing scientific landscape. Scholars across the Science of Team Science (SciTS), management, organizational, behavioral and social sciences, public health, philosophy, and information technology, among other areas of scholarship, will find inspiration for new research directions to continue advancing cross-disciplinary team science.

Re-Globalization - Roland Benedikter 2022

"Re-Globalization examines the changing face of globalization, with political, economic, and social balances in flux, and tensions increasing in many parts of the globe. This book discusses and problematizes the current transition phase of globalization - in response to issues such as inequalities, climate change, and health crises - offering a comprehensive collection of responses to the question "what is re-globalization?". The authors discuss the various definitions and forms of re-globalization, using a range of approaches, examples, and case studies in order to shed light on this process. The analysis of the phenomenon of re-globalization - understood as an economic, political, and social process - is both inter- and trans-disciplinary. This volume offers contributions from academic disciplines within the social sciences, as well as technology, global security, global studies, health, and climate and environmental sciences. Overall, the book analyzes and illustrates how globalization shifts are interconnected and how they relate to a transition in global society, proposing a framework for a series of future scenarios. This socio-geographically diverse book will be of great interest to students, scholars, and researchers across a broad spectrum of disciplines exploring the future of globalization"--

Transdisciplinary Solutions for Sustainable Development - Mark Charlesworth 2015-05-15

Global environmental issues such as climate change and species loss are intensifying despite our best efforts to combat them. The key reason for this is that the drivers of these problems are closely linked to the industrialism and consumerism that are promoted by governments and other organizations the world over. This innovative book identifies the key issues that block progress in sustainable development and proposes transdisciplinary solutions. Presenting a review of the

epistemology and ethics of this policy field including current policy responses, it examines the ethical and policy implications from a multidisciplinary perspective. The book explains the current limitations of scientific prediction for global environmental issues and develops innovative approaches to respond to these difficulties, drawing out lessons that will make sustainable development policy more democratic, plural and open. This book will be of great interest to students and researchers in environmental policy, development studies, politics, economics and sustainable development.

Sustainability and the Art of Long-Term Thinking - Bernd Klauer 2016-09-01

Dealing with time is intimately linked to sustainability, because sustainability, at its core, involves long-term ethical claims. To live up to them, decision and policy-making has to consider long-term development of society, economy, and nature. However, dealing with time and such long-term development is a notoriously difficult subject, both in science and, in particular, in practical decision and policy making. Rooted in philosophical and scientific reasoning, this book explores how the concept of time can be incorporated into effective practical action. The book describes a system and uses case studies to help sustainability practitioners and researchers consider the long-term consequences of our actions in a methodical way. The system integrates scientific and practical knowledge about time and temporal developments to help break down the sometimes overwhelming complexity of sustainability issues. Combining theoretical conceptual thinking and practical applications, this

book will be of great interest to students and researchers of sustainability science, environmental sciences, sustainable development, environmental economics, political sciences and practical philosophy. **Enhancing the Effectiveness of Team Science** - National Research Council 2015-07-15

The past half-century has witnessed a dramatic increase in the scale and complexity of scientific research. The growing scale of science has been accompanied by a shift toward collaborative research, referred to as "team science." Scientific research is increasingly conducted by small teams and larger groups rather than individual investigators, but the challenges of collaboration can slow these teams' progress in achieving their scientific goals. How does a team-based approach work, and how can universities and research institutions support teams? *Enhancing the Effectiveness of Team Science* synthesizes and integrates the available research to provide guidance on assembling the science team; leadership, education and professional development for science teams and groups. It also examines institutional and organizational structures and policies to support science teams and identifies areas where further research is needed to help science teams and groups achieve their scientific and translational goals. This report offers major public policy recommendations for science research agencies and policymakers, as well as recommendations for individual scientists, disciplinary associations, and research universities. *Enhancing the Effectiveness of Team Science* will be of interest to university research administrators, team science leaders, science faculty, and graduate and postdoctoral students.