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td-net
Network for Transdisciplinary Research

A Tour d'Horizon of Literature Related to Transdisciplinarity Published in 2012

The number of publications in the field of inter- and transdisciplinary research has been steadily growing during recent years (http://www.transdisciplinarity.ch/e/Bibliography/Publikationstrend_itd.php).

In order to give an overview the td-net invites experts of transdisciplinary research every year to inform us about important recent publications in the area of transdisciplinarity (see list of contributors). In this document we present new literature published in 2012 with short annotations written by the experts that recommended the publications.

We would like to thank the contributors for their inputs and are looking forward to another productive year for transdisciplinary research.

"Tour d'horizon" literature lists from previous years can be found here
http://www.transdisciplinarity.ch/e/Bibliography/new.php

More information about transdisciplinary literature is available from the "bibliography transdisciplinarity" at
http://www.transdisciplinarity.ch/e/Bibliography/

Categories

Concepts of inter- and transdisciplinarity

Darbellay F (ed) 2012. *La circulation des savoirs. Interdisciplinarité, concepts nomades, analogies, métaphores*. Bern: Peter Lang.

„In our society in which communication is so wide-ranging and rapid we are witnessing a significant increase in the pace at which knowledge is produced and disseminated. Bodies of knowledge intersect as they cross borders between disciplines in the human and social sciences, and in the natural sciences, life sciences, and technological sciences. This book addresses these issues by defending the idea that, like other modi operandi, interdisciplinarity is promoted by the circulation of concepts, theories, and methods, and by analogy or transfer across and beyond disciplinary borders that appear closed." (fd)

Foshay R   (ed) 2012. *Valences of Interdisciplinarity: Theory, Practice, Pedagogy*. Athabasca University: AU Press.

„'Valences of Interdisciplinarity' presents essays by an international array of scholars committed to enhancing our understanding of the theoretical underpinnings and the practical realities of interdisciplinary teaching and research. What is, and what should be, motivating our reflections on, and our practice of, approaches that transcend the conventional boundaries of discipline? And in adopting such transdisciplinary approaches, how do we safeguard critical methods and academic rigour?" (fd)

Frodeman R, Briggle A, Holbrook J B 2012. *Philosophy in the Age of Neoliberalism*. Social Epistemology, V26, N3-4, pp 311-330.

"This article discusses a notion of 'field philosophy' that outlines a way to transdisciplinize philosophy and the humanities in general." (bh)

Nicolescu B 2012. *O que é a Realidade? Reflexões em torno da obra de Stéphane Lupasco*. São Paulo: Triom.

"Fittingly, this work provides questions, reflexions and insights on what reality is. In it transdisciplinary epistemological, methodological and ontological aspects are alluded to, and the reader is gently introduced to this realm in a movement that articulates feelings, thoughts and actions. Direct, acute, perfectly put together the author pays tribute to the philosophical search of Stéphane Lupasco with deep expressive conceptual clarity and emotion. Anyone interested in Transdisciplinarity should read it partly because it traces connections dear to the rising and development of this new model of thinking, and also because it is an assertion of creative friendship." (bn, mm)

Post-normal science

van der Sluijs J P 2012. *Uncertainty and dissent in climate risk assessment: a post-normal perspective*. Nature and Culture, V7, N2, pp 174-195.

"According to its political configuration the Intergovernmental Panel on Climate Change (IPCC) adopted a "speaking consensus to power" approach that sees uncertainty and dissent as a problematic lack of unequivocalness (multiple contradictory truths that need to be mediated into a consensus). This approach can be distinguished from two other interface strategies: the "speaking truth to power approach," seeing uncertainties as a temporary lack of perfection in the knowledge (truth with error bars) and the "working deliberatively within imperfections" approach, accepting uncertainty and scientific dissent as facts of life (irreducible ignorance) of which the policy relevance needs be explored explicitly. More openness for dissent and explicit reflection on ignorance in IPCC process and reporting is urgently needed." (js)

Problem orientation

Adler C E, McEvoy D, Chhetri P, Kruk E 2013. *The role of tourism in a changing climate for conservation and development. A problem-oriented study in the Kailash Sacred Landscape, Nepal*. Policy Sciences, V46, N2, pp 161-178.

"This paper presents the results of a rapid assessment study conducted in the Kailash Sacred Landscape region in north-western Nepal. The study sought to explore how sustainable tourism might serve as a strategy to address climate change adaptation, poverty alleviation, and conservation through management of ecosystem services. The paper describes the process of knowledge integration in a rapid assessment context, as well as considerations for the intricately complex interrelations between diverse policy objectives on climate change, ecosystem services and conservation, and poverty alleviation and development." (ca)

Co-production of knowledge

Enengel B, Muhar A, Penker M, Freyer B, Drlik S, Ritter F 2012. *Co-production of knowledge in transdisciplinary doctoral theses on landscape development—An analysis of actor roles and knowledge types in different research phases*. Landscape and Urban Planning, V105, N1–2, pp 106-117.

„Four transdisciplinary PhD's are analyzed for how knowledge has flown between researchers and stakeholder from problem framing to bringing results to fruition. Such an analysis is the first of its kind to my knowledge." (cp)

Evaluation of inter- and transdisciplinary research

Hall K L, Stokols D, Stipelman B A, Vogel A L, Feng A, Masimore B, Morgan G, Moser R P, Marcus S E, Berrigan D 2012. *Assessing the Value of Team Science: A Study Comparing Center- and Investigator-Initiated Grants*. American journal of preventive medicine, V42, N2, pp 157-163.

„The publication productivity of transdisciplinary teams is compared to individuals, showing a higher productivity after some years time lag. This is good-to-know evidence." (cp)

Huutoniemi K 2012. *Interdisciplinary accountability in the evaluation of research proposals: Prospects for academic quality control across disciplinary boundaries*. PhD Dissertation. University of Helsinki.

"Huutoniemi's dissertation also focuses on the evaluation of interdisciplinary research. She's wise to attach such evaluation to the idea of 'accountability', I think. But one thing that's interesting about the way she does it is that she talks of 'interdisciplinary accountability' rather than 'interdisciplinarity as accountability'. The former strikes me as more along the lines of normal, disciplinary accountability, except addressing what one does when the research spans more than one discipline. The latter – which she doesn't really address – is the idea that interdisciplinary and transdisciplinary research can itself be seen as a response to the lack of accountability of disciplinary research to anything other than disciplinary standards. She seems to be looking for something like interdisciplinary standards for evaluation." (bh)

Huutoniemi K 2012. *Communicating and compromising on disciplinary expertise in the peer review of research proposals*. Social Studies of Science, V42, N6, pp 897-921.

„The paper analyses peer review deliberations in four evaluation panels that differ in terms of scope and disciplinary heterogeneity. The comparison sheds light on how collective judgments are shaped and constrained by the disciplinary set-up of the panels in which reviewers operate and in which the intersubjective dynamics on the deliberations unfold. Based on these findings, the paper considers conditions that may enhance interdisciplinary interaction and complementary judgments in the peer review of research proposals." (kh)

Institutions for transdisciplinary research

Kueffer C, Underwood E, Hirsch Hadorn G, Holderegger R, Lehning M, Pohl C, Schirmer M, Schwarzenbach R, Stauffacher M, Wuelser G, Edwards P 2012. *Enabling Effective Problem-oriented Research for Sustainable Development*. Ecology and Society, V17, N4, pp: 8. [online] URL: http://www.ecologyandsociety.org/vol17/iss14/art18/

"The article summarizes the literature on institutional arrangements at universities that enable transdisciplinary and problem-oriented research and teaching. The article is written by transdisciplinary scholars together with people involved in sustainability research and university administration, and the hope is that thanks to such a diverse author team the article is accessible to a broad audience. The article proposes a pragmatic approach to institutional change at universities whereby fundamental changes might be envisioned at some universities or for some fields of activities ('system innovation') while other universities or in other fields of activities more gradual adaptation processes might be mor realistic ('system optimization')." (ck)

Trowler P, Saunders M, Bamber V (eds) 2012. *Tribes and Territories in the 21st Century. Rethinking the significance of disciplines in higher education*. Oxford: Routledge.

„The 'tribes and territories' metaphor for the cultures of academic disciplines and their roots in different knowledge characteristics has been used by those interested in university life and work since the early 1990s. This book draws together research, data and theory to show how higher education has gone through major change since then and how social theory has evolved in parallel. Together these changes mean there is a need to re-theorise academic life in a way which reflects changed contexts in universities in the twenty-first century, and so a need for new metaphors." (fd)

Education for inter- and transdisciplinary research

Dusseldorp M, Beecroft R (eds) 2012. *Technikfolgen abschätzen lehren. Bildungspotenziale transdisziplinärer Methoden*. Wiesbaden: Springer.

"This reader demarcates the most recent publication and one of the very few books on transdisciplinary education. At the occasion of Technology Assessment specific approaches and concepts are described from different perspectives." (ag)

Herweg K, Schäfer N, Zimmermann A (eds) 2012. *Guidelines for Integrative Training in Inter- and Transdisciplinary Research Settings: Hints and Tools for Trainers of Trainers*. Bern, Switzerland: Geographica Bernensia.

"These *Guidelines* offer practical assistance for trainers who wish to design, plan, and conduct training events in complex research settings. The training is based on "case-study-based learning", implemented in 8- to 10-day courses in environments that offer options for 2- to 3-day fieldwork activities on complex global change issues. The guidelines target training units at universities and research institutes; instructors working in interdisciplinary, transdisciplinary, and applied research settings; research programme managers; and senior scientists involved in coaching students in research projects on global change and sustainable development." (az)

Lyall C, Meagher L R 2012. *A Masterclass in interdisciplinarity: Research into practice in training the next generation of interdisciplinary researchers*. Futures, V44, N6, pp 608-617.

„The challenges of supervising (and writing) interdisciplinary Master and PhD thesis are presented in a rich and down to earth way. A lot of useful thoughts and tips for how to meet these challenges make it a must-read for id/td teachers" (cp)

Transdisciplinary careers

Felt U, Igelsböck J, Schikowitz A, Völker T 2012. *Growing into what? The (un-)disciplined socialisation of early stage researchers in transdisciplinary research*. Higher Education, V65, N4, pp 511–524.

"Based on the concept of 'epistemic living spaces', the paper analyzes and discusses which (partly contradictory) requirements are emanating from transdisciplinary research and how researchers at the early stage of their careers are dealing with those requirements." (mp)

Science-policy interface

Cartwright N, Hardie J 2012. *Evidence-Based Policy. A Practical Guide to Doing It Better*. New York: Oxford University Press.

„This book is about how to judge whether a proposed science-based policy will be effective in a certain context of application. It provides tools for how to consider complex causation and variability of application contexts. The book is addressing policy-makers, but it is also helpful for researchers doing policy-oriented research to reflect upon and tailor their knowledge contribution to the problem situation to be addressed." (gh)

Lövbrand E, Stripple J 2012. *Disrupting the public - private distinction: excavating the government of carbon markets post-Copenhagen*. Environment and Planning C: Government and Policy, V30, N4, pp 658-674.

"Writing in the tradition of Foucauldian governmentality studies, the authors critically challenge the power and agency of private actors in (environmental) governance arrangements. Building on the notion of 'calculative practices', they show how formal and hierarchical techniques of government are increasingly superseded by more indirect regimes of calculation." (mp)

Spierenburg M 2012. *Getting the message across. Biodiversity science and policy interfaces – A review*. GAIA - Ecological Perspectives for Science and Society, V21, N2, pp 125-134.

„Reviewing a broad scope of concepts and developments, the article formulates criteria policy-relevant research should entail: careful assessment of social-ecological systems and possible trade-offs, taking into account the diversity of perspectives of the various stakeholders, being explicit about underlying framings and various policy options, and developing reflexive governance approaches. It strongly advocates that biodiversity scientists should not withdraw from, but confront the political aspects of decision-making relating to biodiversity." (tm)

Wuelser G, Pohl C, Hirsch Hadorn G 2012. *Structuring complexity for tailoring research contributions to sustainable development: a framework*. Sustainability Science, V7, N1, pp 81-93.

„Using the example of sustainability research, this paper suggests a set of fundamental questions to be deliberated for aligning essentially research questions with societal knowledge requirements. By addressing the phenomenon of varying goal definitions, the issue of how societal change can be framed as well as different kinds of knowledge that might be asked for, it disentangles and clarifies a set of core challenges with which also transdisciplinary research is more generally concerned." (gw)

Participation

Lynch A, Griggs D, Joachim L, Walker J 2013. *The role of the Yorta Yorta people in clarifying the common interest in sustainable management of the Murray–Darling Basin, Australia*. Policy Sciences, V46, N2, pp 109-123.

"This paper provides a detailed description and analysis on the importance of shared regional governance in supporting sustainability goals. The paper illustrates this analysis through a case study, the Indigenous Yorta Yorta people and the wider community in the Murray–Darling Basin, Australia. The paper demonstrates how factors such as colonial legacies and climate change can influence upon the fulfilment of common goals for sustainability." (ca)

Röckmann C, Ulrich C, Dreyer M, Bell E, Borodzicz E, Haapasaari P, Hauge K H, Howell D, Mäntyniemi S, Miller D, Tserpes G, Pastoors M 2012. *The added value of participatory modelling in fisheries management – what has been learnt?* Marine Policy, V36, N5, pp 1072-1085.

"This paper explores the question how uncertain fisheries science can be linked with good governance processes, thereby increasing fisheries management legitimacy and effectiveness. The JAKFISH project (Judgment And Knowledge in Fisheries Involving StakeHolders) invited fisheries stakeholders to participate in the process of framing the management problem, and to give input and evaluate the scientific models that are used to provide fisheries management advice. Participatory modelling has the potential to facilitate and structure discussions between scientists and stakeholders about uncertainties and the quality of the knowledge base, thereby contributing to collective learning, increased legitimacy, and advanced scientific understanding." (js)

Social learning

Hübner R 2012. *Nachhaltigkeitskommunikation reloaded. Aporien als Chance für gesellschaftliche Lern- und Entwicklungsprozesse / Sustainability Communication Reloaded. Aporias as Challenges for Societal Learning and Sustainable Development*. GAIA - Ecological Perspectives for Science and Society, V21, N4, pp 262-265.

"The article faces the question, how sustainably effective change processes can be designed. The author suggests to increasingly focus on collective learning processes with the aim to manage fields of tension and aporias that go along with cultural change. Management of contradictions is one of the major challenges in transdisciplinary processes. Insofar this article is of interest for transdisciplinary research (not only in the field of sustainability sciences)." (mu)

Intervention research

Krainer L, Lerchster R E (eds) 2012. *Interventionsforschung Band 1. Paradigmen, Methoden, Reflexionen*. Wiesbaden: Springer.

"In this anthology different authors are presenting intervention research as a transdisciplinary method and reflect the paradigms and methods. Practitioners, scientists and clients describe their experiences with this new research method." (lk)

Lesjak B 2012. *Changing society - But how? A contribution to a dynamic definition of intervention*. Challenging Organisations and Society, V1, N1, pp 11-22.

"Trying to change the society is an ambitious goal. The following paper examines this goal from a social scientist's point of view. The focal thesis is that society is capable of changing, and people are capable of learning. Interventions in society are - generally speaking - sensible actions as long as they improve the quality of the relevant aspects of life. Enlightenment has been an important theme in group dynamics. The question is how to bring Enlightenment, self-determination, and participation to society. A dynamic tool of intervention is to be applied that apparently consists of social techniques, but in fact is an idea of Enlightenment." (lk)

Ukowitz M 2012. *Wenn Forschung Wissenschaft und Praxis zu Wort kommen lässt… Transdisziplinarität aus der Perspektive der Interventionsforschung*. Marburg: Metropolis.

"Starting with a reflection of experiences in Intervention Research determining factors an possibilities of further development of transdisciplinary research are worked out. Against the background of Intervention Research a theoretical basis of td-research is suggested and td-research is conceptualized as an intermediate institution between science and society." (lk)

Arts and sciences

Ingram M 2012. *Sculpting Solutions: Art–Science Collaborations in Sustainability*. Environment: Science and Policy for Sustainable Development, V54, N4, pp 24-34.

"The article addresses the potential of including artists in ecosystem restoration and other environmental projects. The art-science collaborations that Mrill Ingram discusses thus may also hold promise for transdisciplinary projects as regards a special way of including culture, aesthetics, and emotion as critical elements of environmental collaboration in general." (mg)

Risk research

Busby J S, Alcock R E, MacGillivray B H 2011. *Types of risk transformation: a case study*. Journal of Risk Research, V15, N1, pp 67-84.

"New technologies also have disadvantages which often manifest themselves as risks of a very different nature than the risks these innovations claim to reduce. This paper provides a state of art categorisation of risk transformations according to: (1) whether they were interpreted as involving physical change or interpretational change and (2) whether they were translational, replacing one risk with another, or diffusional, merely adding to a stock of risk. Where public understanding of this phenomenon often frames these risk issues as being accidental or emergent, Busby et al identified other framings where these risk issues are framed as deliberate and functional instead." (js)

Technology assessment

Grunwald A, Von Hartlieb J (eds) 2012. *Ist Technik die Zukunft der menschlichen Natur? 36 Essays*. Hannover: Wehrhahn.

"This reader includes statements, thoughts and stories from a broad variety of authors on the issue of human nature and possible ways towards its enhancement. The authors do not only cover different scientific disciplines but include persons writing from different perspectives outside science." (ag)

Landscape research

Kröger M, Rückert-John J, Schäfer M 2012. Wissensintegration im nachhaltigen Landmanagement. Inter- und transdisziplinäre Problembeschreibung im Projektverbund ELaN. ELaN Discussion Paper, Institut für Landschaftswasserhaushalt, ZALF-Müncheberg.

"The integration of different bodies of knowledge is a challenging task in inter- and transdisciplinary research projects. In this paper the authors present the first step of knowledge integration in the ongoing ELaN project which deals with sustainable land and water management. The "constellation analyses" is a bridging concept designed for
sustainability studies and interdisciplinary cooperation. It was applied to facilitate a common understanding of the respective research problem. The paper outlines the application of this method for the integration of both inter- and transdisciplinary knowledge." (mk, ms)

Oteros-Rozas E, González J A, Martín-López B, López C A, Zorrilla-Miras P, Montes C 2012. *Evaluating ecosystem services in transhumance cultural landscapes. An interdisciplinary and participatory framework*. GAIA - Ecological Perspectives for Science and Society, V21, N3, pp 185-193.

„Focusing on the customary practice of livestock movement in Spain, the article analyses how ecosystem services assessment can contribute to its conservation. The comprehensive framework presented helps facilitate the dialogue between different knowledge systems and promotes multi-scale participatory decision-making." (tm)

Geography

Lorimer J 2012. *Multinatural geographies for the Anthropocene*. Progress in Human Geography, V36, N5, pp 593-612.

"Informed by recent ideas in science and technology studies, environmental sociology, and human geography, the article outlines possible trajectories along which ecological issues can be valued and contested in different social and political context. Jamie Lorimer's goal in the second half of the article is to connect these insights to recent developments in the natural sciences to outline what a new biogeography of the 21st century needs to look like as regards constructive engagements between disciplinary mindsets." (mg)

Marquardt N, Schreiber V (eds) 2012. *Ortsregister. Ein Glossar zu Räumen der Gegenwart*. Bielefeld: transcript.

"The point of departure of this book is taking specific locations in space as opportunities to learn specifically about current developments, perspectives, and conflicts. The book has been written by a broad variety of scientists from different disciplines and also from the arts." (ag)

Sustainability science

Weinstein M P, Turner R E (eds) 2012. *Sustainability Science. The Emerging Paradigm and the Urban Environment*. Berlin: Springer.

"An absorbing collection of essays focusing on challenges and recent progress in sustainability science and transdisciplinarity on the example of managing ecosystems as regards science-policy-economy issues especially in an urban context." (mg)

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