

# Tour d’Horizon of Literature 2025

td-net  
Network for Transdisciplinary Research

To provide a comprehensive overview of important literature in the field of inter- and transdisciplinarity, td-net annually invites experts from the td-net community to compile a list of recent key publications. Please refer to page 21 for the list of contributors to this year’s Tour d’Horizon. Within this document, we present literature published in 2025, accompanied by concise annotations provided by the experts who recommended these publications.

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

All previous “Tour d’Horizon of Literature” issues can be found on *our website*.

*This document is interactive: the references are hyperlinked with the matching website.*

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## Theories and epistemologies

Adriaenssens, J., Dessein, J., & Adam, J. (2025). Science as a territory in dispute: An analysis of power and paradigms in the conceptualization of agroecology. *Agriculture and Human Values*, 42(3), 1757–1771.

- An article about epistemic supremacy and alternative paradigms within science, using the very concrete and timely example of agroecology. *Johanna Jacobi*

Augenstein, K., Künkel, J., Lanzendörfer, T., Bachmann, B., Schmale, A., & Shapiro, J. (2025). Narrative futures: Inter- and transdisciplinary perspectives on the role of narratives in sustainability transformations. *GAIA - Ecological Perspectives for Science and Society*, 34(3), 137–142.

- The article demonstrates very effectively the importance narratives can have in presenting complex interrelationships and in communicating them to different target groups. The article is convincing both in terms of its concept and its application. It addresses a central theme of the sustainability debate and makes it highly applicable to the design of communication and discourse. *Almut Jödicke*

Cvitanovic, C., Karcher, D., Breen, J., Badullovič, N., Cairney, P., Dalla Pozza, R., Duggan, J., Hoffmann, S., Kelly, R., Meadow, A., & Posner, S. (2025). Knowledge brokers at the interface of environmental science and policy: A review of knowledge and research needs. *Environmental Science & Policy*, 163.

- This paper offers the most comprehensive synthesis to date of how knowledge brokers function in environmental decision contexts, highlighting the diversity of practices and often invisible work that enable evidence-informed policy processes. By mapping research gaps and outlining a forward-looking research agenda, the paper pushes beyond traditional conceptualisations of brokerage and invites reflection on how diverse knowledge systems and actors can be more effectively connected across the science–policy interface. *Jialin Zhang*

Darbellay, F. (2025). De la disciplinarité à la transdisciplinarité: Entre clarification conceptuelle et refondation épistémologique. *In Analysis*, 9(3).

- Adopting a critical stance towards relevant scientific literature, this publication reimagines the notion of disciplinarity, based on the premise that interdisciplinarity and transdisciplinarity necessitate this reimagining. Among other things, the findings suggest that interdisciplinarity and transdisciplinarity should be positioned not as new or autonomous disciplines, but as dialogical and processual practices that are in constant interaction with established disciplines. *Stefan Müller*

Deutsch, L., Pohl, C., Bresch, D. N., & Hoffmann, S. (2025). Creating favorable conditions for inter- and transdisciplinary integration – An analytical framework and empirical insights. *Global Environmental Change*, 91.

- This paper provides an analytical framework grounded in empirical insights from multiple ITD initiatives to diagnose and understand the structural and agency-level conditions that enable or impede genuine integration in inter- and transdisciplinary research. By highlighting how structural contexts and actor practices interact to shape integration outcomes, this paper offers both conceptual clarity and actionable entry points for researchers, institutions, and funders committed to realizing the promises of integrative collaboration. *Jialin Zhang*

Echazú Böschenmeier, A. G. (2025). El primer nueva corónica y buen gobierno. *Enciclopedia de Antropología*.

- This entry underscores Guamán Poma's chronicle as a critical epistemic intervention that destabilizes colonial historiography by centering an indigenous Quechua voice, blending textual narrative and visual cosmologies to challenge entrenched Eurocentric and anthropocentric frameworks. The work's recovery and contemporary anthropological engagement illustrate its ongoing relevance for debates about decolonizing knowledge production and recovering subaltern perspectives. *Ana Gretel Echazú Böschemeier*

ten Hagen, S., & Horn, A. (2025). Virtues of Inter- and Transdisciplinarity: A Historical Analysis of the Emergence, Consolidation and Saturation of Virtue Discourses – Association for Interdisciplinary Studies. *Issues in Interdisciplinary Studies*, 42(1–2), 249-268.

- A historical analysis mapping how writings about virtues and personal attributes related to ITD have evolved over time. It describes a shift towards competencies and collaborations language, which may also be telling about the direction the field of ITD studies is heading into. *Annemarie Horn*

He, J., Zhou, Y., Pandey, R., Stringer, L. C., Cao, Y., Bhatt, H., Luo, R., Wang, S., Li, T., & Li, S. (2025). Characteristics and Framework for Assessing Supply and Demand Relationship for Ecosystem Services Using a Trade-off and Synergy Lens. *Land Degradation & Development*, 36(6), 1771–1786.

- This article (cited 17 times) elaborate the linkages of ecosystem and society to assess precisely supply and demand of ecosystem services besides describing the interplay of ES supply and demand. *Rajiv Pandey*

Keestra, M., & Dieleman, H. (2025). Resisting the Imperative of Integration: Epistemic Injustice, Resistance and Openness in Inter- and Transdisciplinary Research. *Issues in Interdisciplinary Studies*, 42(1–2), 269–296.

- This article argues that with an “imperative of integration,” inter- and transdisciplinary approaches risk epistemic injustice or excluding some perspectives, as is shown in case studies involving non-academic stakeholders like indigenous groups or patients are marginalized or rejected. The epistemic resistance exerted by these groups can lead to modification or even rejection of the project at stake. To avoid this, researchers do well in obtaining an attitude of epistemic humility and openness and engaging with two constructive strategies that are presented: dialogue and imagination. *Machiel Keestra*

Lawrence, R. J. (2025). Paths to Transdisciplinarity: Reconnecting Pathways and Positionality. *World Futures*, 81(5), 329–348.

- This paper explains that path metaphors help understand multiple interpretations of transdisciplinarity that coexist and rarely converge. Path metaphors enable reflexive thinking and dialogue between people on different paths. Researchers and practitioners should consciously position themselves on paths. *Roderick Lawrence*

Levis, C., Rezende, J. S., Barreto, J. P. L., Barreto, S. S., Baniwa, F., Sateré-Mawé, C., Zuker, F., Alencar, A., Mugge, M., Simon de Moraes, R., Fuentes, A., Hirota, M., Fausto, C., & Biehl, J. (2025). Indigenizing conservation science for a sustainable Amazon. *Science*, 386(6727), 1229–1232.

- The article argues that Amazonian sustainability depends on epistemic plurality and sustained dialogue between Indigenous and Western knowledge systems. It contributes to interdisciplinarity by integrating conservation science with social theory, political ecology, and applied governance debates. It advances transdisciplinarity by situating Indigenous Peoples as co-producers of knowledge and as legitimate authorities in conservation decision-making. In doing so, it challenges extractive models of “integrating” local knowledge and foregrounds relational ontologies and territorial stewardship practices. This perspective has implications for research design, methodological reflexivity, and the institutional reconfiguration of conservation agendas in the Amazon. *Ana Gretel Echazú Böschenmeier*

Peredo Albornoz, G, Prado Mendoza, C & D’Ascia, L. (2025). The Pakasqa Nuna Interface: The subconscious neurophilosophy of the ‘unseen world’ from the Law of Origin or First Law. In: Andres, F. & Hiro Kimishima, M. *Development of Self-Awareness and Wellbeing* (pp. 199-228). Kyoto, Japan. IGI Global.

- The study explores the intersection of neuroscience, neurophilosophy, and indigenous knowledge systems to address systematic and empirical evidence about the interface between visible and invisible - unseen world - phenomena by examining the Pakasqa Nuna (subconscious) at the ancestral medical practices, providing highlights in the integration of indigenous knowledge into contemporary biomedical and neurocognitive paradigms. Drawing on ethnomedicine practices, the paper proposes a consilient and transdisciplinary approach that bridges cultural and scientific perspectives. It emphasizes the health and wellness as rooted in the interrelation of human, natural, and sacred communities. By exploring altered

states of consciousness and their neurophenomenological impacts, the research offers new pathways for integrating spiritual dimensions into global health paradigms and science development. *Garbiel Peredo Albornoz*

Pörtner, E., & Lebrecht, T. (2025). *Towards Convivial Sciences. Uniting Strands of Critical Inquiry*. oekom science.

- A superb introduction on the different epistemic problems of currently dominant scientific paradigms and what Convivial Sciences are with many hands-on examples compiled by the Critical Scientists Switzerland. *Johanna Jacobi*

Punjabi, S., Misra, S., Rippey, M. A., Grant, S. B., Galappaththi, E., Lim, T., & Birkland, T. A. (2025). A conceptual framework for knowledge integration in cross-disciplinary collaborations. *Environmental Science & Policy*, 172.

- By connecting three strands of literature (ITD, co-production in sustainability research and SciTS) this paper provides a valuable overview for readers new to the concept of knowledge integration in cross-disciplinary collaborations. For scholars that are familiar with the field, it provides a "one-stop shop" for dimensions, collaboration components and dynamics, knowledge types and structural features of knowledge integration. *Hanna Salomon*

Orefuice, C., Zoran, G. Collado, J. (2025). Promuovere una nuova umanizzazione: la decolonizzazione del pensiero e la sfida dell'ecologia transdisciplinare. *Attualità pedagogiche*, 7(2), 113-123.

- The contribution offers a concise reflection on what is considered a central theme for understanding contemporaneity and the exercise of biopower in university practice: the construction of knowledge and the political-epistemic violence connected to it. Through a theoretical and research debate that intersects diverse decolonial perspectives, processes, and practices, the Authors reflect on how the production of knowledge is a complex and multidimensional process. As a result, it is concluded on the necessity of adopting, starting from universities, a transdisciplinary approach to connect disciplines and offer a new perspective on nature and reality capable of addressing the countless challenges of contemporaneity. *Carlo Orefice*

Rotenfeld, Y. (2025). Categories of Pure Mind as the Foundation of Transdisciplinary Thinking. *Philosophy Study*, 15(3).

- In 2023, the same journal published my article "The Philosophical Matrix as a System of Categories of Pure Mind," that is, transdisciplinary categories. If you're interested in the 2025 article, be sure to check out the 2023 article as well. *Yuriy Rotenfeld*

## Approaches, methods and tools

Bammer, G., Foley, T., Chitrasav, N., Richardson, A. P., Valter, K., Nabavi, E., Johns-Boast, L., Browne, C. A., Nurmikko-Fuller, T., & Jones, J. S. (2025). Advancing transdisciplinarity through library–academic collaboration. *Humanities and Social Sciences Communications*, 12(1).

- Very useful overview of how the metadata they developed can enable excellent searching. It provides what is needed to begin the standardization that is so valuable and important. *Margaret Krebs*

Bennet, L. M., Gadlin, H., & Khuri, S. (2025). *How to Succeed at Collaborative Research. A Practical Guide for Teams*. Bristol University Press

- Excellent integration of team science written in a very usable form. *Margaret Krebs*

Cheok, J., van Velden, J., Fulton, E. A., Gordon, I. J., Lyons, I., Peterson, G. D., Wren, L., & Hill, R. (2025). Framings in Indigenous futures thinking: Barriers, opportunities, and innovations. *Sustainability Science*, 20(2), 613–633.

- Novel and deep global review of Indigenous futures methods. *Garry Peterson*

Collado, J. (2025). Filosofía biomimética: Una perspectiva transdisciplinar para la regeneración planetaria. *Revista de Biomimesis*, 11, 48–75.

- The article by Javier Collado Ruano, from the National University of Education (UNAE) of Ecuador, entitled “Biomimetic Philosophy: A Transdisciplinary Perspective for Planetary Regeneration,” explores the possibility of a transdisciplinary biomimetic philosophy capable of uniting knowledge, wisdom, and other epistemologies. The author formulates an ecology of knowledge that enables the emulation of regenerative relationships and demonstrates its relevance to the recognition of the Rights of Nature. *Carlo Orefice*

Crosse, A. M., Lavelle, M. J., Fahy, F., & Barry, M. M. (2025). Participatory research on community knowledge of health, ecosystem services, and sustainability. *GAIA - Ecological Perspectives for Science and Society*, 34(1), 17–24.

- Understanding and valuing local ecosystems requires integrating community knowledge. This study explores socio-ecological determinants of health, ecosystem services, and sustainability in a rural Irish community (N = 121) using a community-based participatory research approach. The findings suggest that participatory research processes have potential in facilitating active community engagement in ecosystem health and translating local knowledge into action but do require skilled facilitation and appropriate communication. *Martina Blum*

Dettwiler, D., Salomon, H., Piessens-Siegrist, M., Last, L., Zhang, J., & Hoffman, S. (2025). Building capacity at the science-policy interface: A competencies framework. *Humanities and Social Sciences Communications* 13, 1-12.

- This article is interesting because it turns the often fuzzy “science–policy interface” into a clear, teachable competencies framework—spanning cognitive, spatial-temporal, relational, and reflexive capacities—so institutions can deliberately build (rather than simply hope for) effective boundary work. It is especially compelling for higher education and continuing education design because it links each competency to concrete dialogue formats and learning activities, making the framework immediately actionable for curriculum and program development. The fractal-inspired visualization is a smart touch: it captures how these competencies scale from high-level SPI engagement down to specific knowledge, skills, attitudes, and training methods—without oversimplifying the real-world complexity. *Maryna Lakhno*

Duygan, M., Binder, C. R., Meylan, G., & Fischer, M. (2025). Carving the transformation pathways to sustainable futures: A novel analytical framework for backcasting in sustainability transitions. *Sustainable Futures*, 9.

- This paper addresses limitations of backcasting in terms of lack of formal tools and assessments, and presents a novel analytical framework to tackle the what-who-how questions crucial for backcasting. The analytical framework presents a toolkit combining various approaches and enables the generation of transformation pathways to desirable futures in different cases. *Theresa Tribaldos*

Flüeler, T. (2025). *How to communicate 'long term'? 10, 100, 10,000 years ...? Practice, research, reflections*. EGU General Assembly 2025.

- "Long term" has many aspects: technical, tech policy, institutional, societal, political, individual, economic. Our responsibility to future generations needs new skills for sustainable governance, transparent (digital) dashboards, open online platforms to table/respond to controversial views/assertions, transdisciplinary labs, ways to address indeterminacy (>> "uncertainty"), VR learning machines to train changing perspectives, etc.. *Thomas Flüeler*

George, B., & Raj, R. (2025). Whose Research Agenda: Moving Beyond Technosolutionism to Participatory Design. In N. Rangaswamy & S. Venkatraman (eds.), *Qualitative Methods for Digital Social Research: Studies from the Global South* (pp. 17–30). Springer Nature.

- Design researchers develop and apply design knowledge for products, services, and interventions by engaging in digital social research. Acknowledging that “technical solutions cannot address non-technical, especially socio-political problems, and often replicate the very issues they aim to resolve,” this chapter offers an action-oriented critique of digital positivism and technosolutionism as a means to address complex societal challenges. *Johanna Jacobi*

Häsler, B., Tvarijonavičiute, A., & Savic, S. (eds). (2025). *Principles of One Health for a better planet*. CABI.

- In a world where people, animals and the environment are recognized as being interconnected and interdependent, we need to work together to improve the health of people, plants, animals and ecosystems simultaneously. This textbook provides an easy to understand, straightforward description of One Health concepts, principles and methods, structured around core competencies so that everyone can contribute to addressing today's most profound global problems more efficiently and effectively. As an entry-level learning resource for anybody with an interest in better understanding and implementing One Health. *Simon Rüegg*

Hofmann, B., Reber, U., Ammann, P., Dötzer, J., Mark, J., McCallum, C., Wiget, M., & Zachmann, L. (2025). A typology of interdisciplinary collaborations: Insights from agri-food transformation research. *Sustainability Science* 20, 1791-1808.

- This article is relevant because it offers a clear, usable framework for how interdisciplinary research teams actually work, rather than treating interdisciplinarity as a vague ideal. Its three-part typology—common base, common destination, and sequential link—is innovative because it maps real collaboration patterns that researchers can deliberately design for. By grounding the framework in a concrete pesticide-governance project involving seven disciplines, the paper shows how these collaboration types play out in practice and where their challenges and opportunities lie. *Benjamin Hofmann*

Hofmann, B., Salomon, H., & Hoffmann, S. (2025). Roles of researchers in inter- and transdisciplinary sustainability research: A reflection tool. *Sustainability Science* 20, 777-792.

- This paper introduces a practical reflection tool that helps researchers articulate and reflect on the multiple roles they play in inter- and transdisciplinary projects, from knowledge broker to change agent. By grounding the tool in both literature and empirical application, the paper advances our understanding of how role awareness can strengthen knowledge co-production and integration in sustainability science, making it especially relevant for scholars and practitioners navigating complex, real-world collaborations. *Jialin Zhang*

Jarrett, G. (2025). From the Masthead to the Map: An Experimental and Digital Approach to Viking Age Seafaring Itineraries. *Journal of Archaeological Method and Theory*, 32(3).

- Novel synthesis of experimental archaeology to reconstruct Norse seafaring techniques. *Garry Peterson*

Kreis, D., & Prominski, M. (2025). Representing spatio-temporal relations between humans and non-humans: The role of landscape architecture in transdisciplinary research. *GAIA - Ecological Perspectives for Science and Society*, 34(1), 25–34.

- The mapping tool Gaiagraphy visualizes interactions between humans, animals, plants, and non-living things. The authors explore its potential in the context of ecosystem-strengthening coastal protection by testing it in a real-world lab on the German North Sea coast. It turned out that Gaiagraphy is a promising tool for landscape architects to communicate socio-ecological processes, yet it needs to be adapted when used in short-term participatory workshops. The approach seems to be applicable to various inter- and transdisciplinary projects where understanding the interconnectedness of actants is essential to address socio-ecological issues. *Almut Jödicke*

Mämmelä, A. (2025). *Unifying Systems: Information, Feedback, and Self-Organization*. Springer Nature Switzerland.

- An impressive survey of the similarities and differences in how systems thinking has been applied across a dozen fields, the book provides a detailed yet accessible overview of systems thinking. *Rick Szostak*

Macdonald, Alastair S. (2025). Cognitive mapping: Enhancing discussions in the transdisciplinary design and health research space? *The Design Journal*, 28(4), 701–721.

- This paper is recommended because it offers a fresh and concrete perspective on how design can support transdisciplinary collaboration in health research. By using cognitive mapping, it shows how hidden assumptions, diverse perspectives and integration needs can be made visible and discussed more openly. *Theres Paulsen*

Pagani, A., Macmillan, A., Savini, F., Davies, M., & Zimmermann, N. (2025). What If There Were a Moratorium on New Housebuilding? An Exploratory Study with London-Based Housing Associations. *Built Environment*, 51(1), 73–94.

- Transdisciplinary research in several respects: draws on multiple academic disciplines, integrates scientific knowledge, systemic tools, and practical expertise to address a complex societal problem. *Carole Després*

Palmer, H., Polk, M., & Raviola, E. (2025). The situatedness of dilemmas in boundary spaces: Uncovering paradoxical conditions for increasing effectiveness through transdisciplinary research approaches. *Global Social Challenges Journal*, 4(1), 20–45.

- The authors define boundary spaces as cross-stakeholder collaborations that focus on the complexity of wicked problems. Due to stakeholder heterogeneity, boundary spaces have inherent tensions in the form of dilemmas and paradoxes that are situated in time and space. By understanding the situatedness of dilemmas and paradoxes, the authors explain how boundary spaces can facilitate interdisciplinary and transdisciplinary projects. *Roderick Lawrence*

Repko, A. F., & Szostak, R. (2025). *Interdisciplinary Research. Process and Theory—Fifth Edition*. SAGE Publications.

- This edition is thoroughly updated to reflect recent literature and advice from instructors. We have in particular added much material aimed at graduate students. We have updated the examples used throughout the text. We have restructured the chapters on integration around a set of integration strategies. We stress that interdisciplinary evaluation complements disciplinary evaluation. *Rick Szostak*

Rockström, J., Thilsted, S. H., Willett, W. C., Gordon, L. J., Herrero, M., Hicks, C. C., Mason-D'Croz, D., Rao, N., Springmann, M., Wright, E. C., Agustina, R., Bajaj, S., Bunge, A. C., Carducci, B., Conti, C., Covic, N., Fanzo, J., Forouhi, N. G., Gibson, M. F., ... DeClerck, F. (2025). The EAT–Lancet Commission on healthy, sustainable, and just food systems. *The Lancet*, 406(10512), 1625–1700.

- World leading synthesis bridging different food related fields for targeted policy relevance. *Garry Peterson*

Transdisciplinary Training Collaboratory. (2025). *Designing Inspiring Workshops & Courses in Transdisciplinarity: A Guide*.

- This guide is specifically aimed at helping university faculty, trainers, and curriculum planners design engaging and meaningful training programs and courses in TDR. It provides a clear, step-by-step approach

for planning workshops and courses tailored to specific audiences, including tips on choosing content, organizing activities, and fostering collaborative skills like inclusive leadership and collective decision-making. The guide simplifies complex concepts with helpful graphics and tables, pointing users to participative tools and activities that enable learners to practice the necessary skills. It is meant not only for seasoned researchers but also for those who are new to training others in these collaborative techniques. *Margaret Krebs*

Zhang, J., Salomon, H., Huber, M. N., Bugmann, H., Dölker, J. E., König, L., Krähenbühl, J., Lieberherr, E., Logar, I., McArdell, B., Molnar, P., Quatrini, S., Schick, V., Schlunegger, F., Schmidt, C., Zabel, A., & Hoffmann, S. (2025). Developing a conceptual framework for interdisciplinary communication, collaboration, and integration: A structured approach. *Ambio*, *54*(12), 2118–2134.

- This paper provides describes how a conceptual framework was developed in an interdisciplinary research team to support integration amongst other things. It is flexible and can be adjusted to other research projects' or programs' specific contexts, making it a valuable tool for the ITD community. *Hanna Salomon*

## Research policy: funding, quality criteria, evaluation

Belcher, B., & Claus, R. (2025). A quality assessment framework for transdisciplinary research design, monitoring, and evaluation: Guidance for application. *MethodsX*, 14, 103264.

- This publication presents a quality assessment framework designed for change-oriented transdisciplinary research. It provides guidance on how to apply the framework and compares it with two other similar evaluation frameworks. The framework is intended for use by a variety of users, including research funders and managers who assess proposals, researchers who design, plan and monitor research projects, and research evaluators who assess projects ex-post. *Stefan Müller*

Chautard, A., & Harris, K. (2025). COP30 unpacked: Why and how Belém could be a turning point for adaptation. *weADAPT*.

- Chautard and Harris' piece connects COP30 in Belém to the broader adaptation agenda by weaving together climate diplomacy, development finance, and the everyday urgency of climate risk, especially in the Global South. Rather than treating adaptation as a purely technical issue, it highlights how outcomes depend on governance choices and on whether resources are delivered in ways that are timely, accessible, and fair—while also recognizing why debt-sensitive approaches (like grants over loans) matter for many countries. At the same time, its framing opens space for anthropological reflection on whose priorities shape “adaptation” and how global commitments translate (or fail to translate) into territorial realities. *Ana Gretel Echazú Böschemeier*

Kropp, C. (2025). Modernist social imaginaries in research funding for urban experimentation – a qualitative analysis of expectations and visions in German-language funding calls. *Research Policy*, 54(9).

- I found this a very helpful and inspiring publication to make sense of the relationships between funding discourses and transdisciplinarity. Takes an interesting lens to make the implicit expectations and worldviews behind funding criteria, information and language explicit. *Annemarie Horn*

Mayer, H. (2025). Universitäten in der Nachhaltigkeitstransformation: Es braucht Willen und Zeit: Reaktion auf B. Nölting et al. in *GAIA* 34/2 (2025): Wissenschaftsorganisationen als Impulsgeber einer Nachhaltigkeitstransformation. *GAIA - Ecological Perspectives for Science and Society*, 34(4), 266–270.

- The example of a university in Switzerland shows the opportunities that arise from a consistent focus on socially effective, transdisciplinary, and transformative research, but also the hurdles that need to be overcome. Universities can only accomplish this task if sufficient resources are available, the scientific culture provides the right incentives, and the university succeeds in opening itself up to society. *Ulrike Shey*

Meirmans, S., de Jong, J. P., & Paul, H. (2025). Making transdisciplinary funding more effective: Lessons from a literature review and focus group interviews. *Research Evaluation*, 34.

- A thorough and thoughtful paper on evaluating large funding schemes for transdisciplinary research. The authors discuss efficacy as being dependent on the type of collaboration (loose networks vs local powerhouses), the initial purpose of the funding (unrealistic targeted impact vs curiosity generated which aligns better with outcomes), and how that funding was organised (detailed regular reporting vs freer frameworks that allow for focus on the actual work). The findings align with broad research culture and provide insights for future funding structures. *Sawsan Khuri*

Pourchez, L., Lustman, M., & Humblot, J.-F. (Eds.). (2025). *Regards croisés sur les relations soignants-soignés*. Editions des archives contemporaines.

- This publication analyzes the relationship between caregivers and patients, bringing together diverse perspectives from various actors in the medical, artistic, anthropological, and sociological fields. Among other things, it reveals a paradigm shift by presenting Joro-terapia, an innovative, practical, transdisciplinary approach that combines medicine and anthropology. This approach, the result of

research in general medicine, transcends the opposition between science and culture, establishing a foundation for holistic approaches that address not only illnesses but also the existential crises of human beings. *Alice Ranorojaona Pélerin*

Van Quaquebeke, N., Tonidandel, S., & Banks, G. C. (2025). Beyond efficiency: How artificial intelligence (AI) will reshape scientific inquiry and the publication process. *The Leadership Quarterly*, 36(4).

- As the authors put it, they address the 'elephant in the room', and explore how AI is being further integrated into the research process at every step. They highlight the positives and the dangers of relying on AI too heavily, and make a call for researchers to ensure we retain good 'judgment, imagination and collective responsibility' in our endeavours. *Sawsan Khuri*

Salmela, M., Vienni-Baptista, B., & Cheas, K. (2025). Towards the Recognition of Interdisciplinary and Transdisciplinary Researchers. *Minerva*.

- Relying on STS and ID/TD scholarships, this article identifies the institutional, social, cultural, and psychological challenges of interdisciplinary and transdisciplinary researchers in the contemporary scientific community. Applying a framework for concerning the position of these researchers to that of queer people in a heteronormative and sexually binary society, the authors conceptualize this as a problem of recognition of these scholars and offer solutions accordingly. *Machiel Keestra*

Wuelser G, Edwards P (2025) Lighthouse Programmes in Sustainability Research and Innovation. Swiss Academies Reports 20 (4).

- For anyone searching for better ways to fund, structure and support ambitious ITD sustainability research, this publication offers a timely and inspiring point of departure. It shows how large-scale research and innovation programmes can be designed to foster integration, collaboration and societal impact more systematically. For funders, programme managers and research institutions, it translates lessons from ITD practice into concrete recommendations for moving beyond individual projects towards more strategic, long-term programme structures. *Theres Paulsen*

### Case Studies and reflections on research projects

Alain-Noël, H., Racin, C., & Minjard, R. (2025). Le peuple des frontières. Un entretien avec Alain-Noël Henri. *EM-Consulte*.

- Interview with Alain-Noel Henri about the way transdisciplinarity is a way of inhabiting the borders. *Svetoslava Nina Urgese*

Bechla, I., & Urgese, S. (2025). Le répertoire lexical dans le champ de la santé, un espace constitutif de transdisciplinarité ? *SociologieS*.

- This article examines how shared language in multi-professional healthcare teams shapes group dynamics, serving both as a reference for meaning and a vessel for emotional expression. Drawing on anthropology and psychodynamics, it highlights how language and group processes mutually influence each other, with interdisciplinary "liminal spaces" fostering institutional reflexivity—illustrated through a marine metaphor of stable foundations and fluid interactions. *Svetoslava Nina Urgese*

*Critical AI Literacy | A Framework for Human Agency*. (2025).

- Employing artificial intelligence (AI) is driven by many expectations and has enormous effects on working environments in the medium term. Besides aims to boost efficiency of work organization, AI is also framed as beacon of hope to make knowledge work more productive. But how can new, AI-based forms of automation constructively complement knowledge work practices? What are the related challenges, and what role do knowledge and basic technical skills play? *Anonymus*

Darbellay, F. (2025). De la disciplinarité à la transdisciplinarité: Entre clarification conceptuelle et refondation épistémologique. *In Analysis, Transdisciplinarité*, 9(3).

- From disciplinarity to transdisciplinarity: Between conceptual clarification and epistemological refoundation. *Svetoslava Nina Urgese*

Deutsch, L., Björnsen, A., Fischer, A. M., Hama, A. M., Zimmermann, N. E., Zurbrügg, C., & Hoffmann, S. (2025). Herding cats: Integrative leadership strategies in inter- and transdisciplinary research programs. *Sustainability Science*, 20, 95–115.

- This paper is especially relevant because it tackles a largely overlooked issue: ITD research programs depend on strong integrative leadership, yet leaders receive little guidance on how to actually manage these complex collaborations. Its contribution is concrete and actionable, offering six clearly defined leadership challenges—ranging from navigating ambiguity to selecting suitable projects—paired with strategies drawn from real ITD programs in Switzerland. By grounding its insights in lived leadership experience, the paper provides a practical roadmap for current and future ITD program leaders seeking to deliver meaningful, synthesized outcomes in sustainability research. *Benjamin Hofmann*
- From a td-net perspective, the paper is particularly useful for teaching because its six leadership challenges make the often invisible work of integration tangible. They provide a helpful basis for discussing how ITD collaboration is enabled, structured and sustained in real research programmes. *Theres Paulsen*

Erlund, S., Tepper, S. E., Roepstorff, A., Heimann, K., & Vesper, C. (2025). Designing for Relational Complexity: The Role of Interdisciplinarity in Art. *The Nordic Journal of Aesthetics*, 34(69).

- This article explores the role of interdisciplinary strategies in contemporary art practice at the intersection of cognitive science, art and virtual reality in the VR artwork 'Nature is an event that never stops'. It also engages participants in the exploration of new ways of visualising data, embodying experience, and fostering collective action in the context of shared reflection on potential futures. *Machiel Kestra*

Garcia de Paredes, P., Ramadier, T., Baron, M., LeBlanc, A., & Després, C. (2025). Mental health and residential adaptations during the pandemic: A mixed-methods study of working mothers. *Cities & Health*, 1–23.

- Interdisciplinary because it combines, integrates, and brings into dialogue several academic disciplines (architecture, environmental psychology, geography and health sciences, each contributing to the conceptual framework, method, interpretation, without going so far as to involve collaboration with non-academic actors (which would fall under the umbrella of transdisciplinarity). *Carole Després*

Kaljonen, M., Tribaldos, T., Kortetmäki, T., Niemi, J., Huttunen, S., Paalanen, L., Salminen, J., Aro, R., Burlandy, L., Heikkinen, M., Huan-Niemi, E., Härkänen, T., Irz, X., Karttunen, K., Knuuttila, M., Kyttä, V., Lehtonen, H., Lonkila, A., Lähteenmäki-Uutela, A., ... Wejberg, H. (2025). Deliberating justice in food systems transformation pathways: A transdisciplinary approach applied in Finland. *Environmental Research: Food Systems*, 2(4).

- The article presents a transdisciplinary framework for incorporating justice considerations as a normative compass into the deliberation of transformation pathways, and applies it to the context of the Finnish food system. The results show how justice can act as a boundary object that brings different disciplines and food system actors together to create a shared language for food systems transformation. At the same time, it makes visible conflicting interests that require ethical reflection by researchers and other societal actors. *Theresa Tribaldos*

Keller, R., Steiger, U., Rey, E., & Grêt-Regamey, A. (2025). *Vielfältige Werte der Natur. Erkenntnisse aus einem Forschungsprojekt des Aktionsplans Strategie Biodiversität Schweiz*.

- A Swiss project on biodiversity highlights the plurality of values of habitats—ecological, economic, and societal—and underscores their critical role as interconnected systems supporting rich biodiversity. Through a transdisciplinary approach that bridges knowledge and practice, the findings guide stakeholders and communities in collaboratively strengthening ecological networks and ensuring the long-term resilience of biodiversity. The results are also well prepared for various stakeholders on <https://www.ralphsonderegger.ch/praxisnavigator/>. *Adrienne Grêt-Regamey*

Küffer, C., Glander, I., Ismail S. A., Krieger, M., Lerch, G. & Joshi J. (2025). Open Spaces of University Campuses as Living Labs for Urban Sustainable Transformation. In: Todd E. Nicewonger and Catherine T. Amelink (eds). *Global Insights into Transdisciplinary Higher Education Initiatives*. Virginia Tech Press: p. 81-103.

- The book chapter presents a particular real-world laboratory: the open public spaces on the campus of the University of Applied Sciences in Rapperswil (Switzerland), that are for our 10 years used as an experimental space for teaching, research and interactions with the general public on issues related to urban ecology, climate adaptation and sustainability. *Christoph Küffer*

Lieberherr, E., Dölker, J., Salomon, H., Schick, V., Logar, I., Bugmann, H., Schlunegger, F., König, L., Krähenbühl, J., McArdeell, B., Molnar, P., Schmidt, C., Quatrini, S., Zabel, A., Zhang, J., & Hoffmann, S. (2025). Science integration and a participatory scenario process. An inter- and transdisciplinary study from the Alps. *GAIA - Ecological Perspectives for Science and Society*, 34(1), 35–41.

- By using science integration and a participatory scenario process, the authors develop pathways for rethinking future management, aiming for resilience of Alpine ecosystems and delivering societal value. In this design report, they present learnings useful for other transdisciplinary projects, i.e., integrate and select concepts early; care for time management and mutual understanding; expect unplanned tasks; go into the region; disseminate your insights. *Almut Jödicke*

Mesa-Jurado, M. A., Novo, P., Calderón-Contreras, R., Pereira, L. M., Bisht, V., Boffi, L., Torre, C. D., Gianelli, I., Sánchez, C. G., Österblom, H., Strand, M., Tengö, M., Vervoort, J. M., & Balvanera, P. (2025). Meaningful transdisciplinary collaborations for sustainability: Local, artistic, and scientific knowledge - *Ecology & Society*. *Ecology and Society*, 30(4).

- This Special Feature explores the unique contributions of art-science transdisciplinary collaborations in addressing complex social-ecological challenges. It identifies key mechanisms, such as participatory visioning, storytelling, material deliberation, and arts-based boundary objects, that facilitate individual and collective agency and deepen connection with place and community. *Theresa Tribaldos*

Müller, L., Czymai, M., Döll, P., & Blättel-Mink, B. (2025). Interdisciplinary collaboration in transdisciplinary projects. Effects on, and challenges for, early-career researchers and the project design. *GAIA - Ecological Perspectives for Science and Society*, 34(4), 274–281.

- In this contribution, sociologists and hydrologists reflect on the effects and challenges of interdisciplinary collaboration in transdisciplinary processes for early-career researchers, as well as for the design process itself. In the project presented, challenges for researchers arose due to disciplinary qualification regulations influencing research modes, and due to the different paradigms of natural and social scientists. Boundary concepts and objects facilitated the inter- and transdisciplinary collaboration. Overall, reflexive interdisciplinary collaboration in transdisciplinary processes offers opportunities for personal development and career advancement, and improves the design of transdisciplinary processes. *Ulrike Sehy*

*Oficina C. (2025). Redes sociales y menores. Oficina C.*

- Interdisciplinary study on the use of social media by minors. *Anonymus*

Palomo I., Lana S., Rabatel A., Dangles O. (2025). *The voices of glaciers: stories of grief and hope amidst shrinking glaciers in the tropics*. With the collaboration of Cauvy-Fraunié S., Ceballos J. L., Adler C., Mark B., Marchant R., Morales Arnao B., Pérez Arias J. D., Aguilar Durán D. & Zimmer A. Marseille-Paris, IRD Éditions-UNESCO.

- In the tropics, glaciers are melting at an alarming rate – transforming landscapes, disrupting lives, and erasing cultural memory. *The Voices of Glaciers* is a powerful new book funded with the support of the MRI that shares the personal reflections of 35 carefully selected individuals – from Indigenous Peoples and Local Communities to scientists – who are witnessing this change firsthand. *Ignacio Palomo*

Philipp, T., & Jende, R. (2025). Die Stadt als Labor. Wie Do-it-yourself-Kulturen Wege transdisziplinären Lernens eröffnen. *GAIA - Ecological Perspectives for Science and Society*, 34(4), 282–289.

- This article explores urban space as a laboratory for experimental learning, and reveals how do-it-yourself cultures, such as makerspaces, community gardens and repair cafés, work as forums of transdisciplinary exchange. Cases illustrate how vacant plots and brownfield sites become classrooms for hands-on skills, ecological literacy and shared governance. Although such spaces promise educational innovation for universities, they can only thrive if policy protects non-commercial niches from property markets and illiberal backlash. The authors urge clear education guidelines, fair power-sharing and lasting alliances between scholars, citizens, artists and planners, so that the emancipatory promise of the city as a laboratory for sustainability and democratic conviviality can endure. *Martina Blum*

Ramelet, L. (2025). Digitale Franken: Unser Geld der Zukunft? *TA-SWISS*.

- Crypto currencies such as Bitcoin and the digitalisation of the monetary system in general are a focus of public concern and the subject of headline news. Specialists are examining options for the development of new forms of digital money that can be issued by central banks, commercial banks and private players. *Anonymus*

Schopp, K. (2025). A pluriversal approach to relational valuation of nature. Insights from agroecological smallholder farmers on the slopes of Mount Meru and Mount Kilimanjaro, Tanzania. *GAIA - Ecological Perspectives for Science and Society*, 34(2), 106–114.

- The study considers the case of agroecological smallholder farmers in Tanzania on the slopes of Mount Meru and Mount Kilimanjaro. Based on qualitative research, two ways of valuing nature are identified: “nature as basis for survival” and “nature as subject and basis for being a farmer”. Global North actors can build on Global South perspectives, regarding ideas of interactions with their environment, and both can mutually inform their perspectives when it comes to recognizing the interdependencies of (non-)human life and animal rights, and linking academic and local knowledge. *Martina Blum*

Thakur, P., Mehta, P., Guleria, A., Divyanshu, Singh, P., Sharma, P., Tiwari, R. K., Lal, M. K., & Kumar, R. (2025). Determinants of farmers' choice for agricultural output marketing channels of tomato (*Solanum lycopersicum*): An empirical evidence from north-western Himalayan region. *Environment, Development and Sustainability*, 27(5), 10497–10521.

- The study (cited 15 times) identifies key determinants influencing farmers' choice of tomato marketing channels in the northwestern Himalayan region using a multinomial logistic regression model based on data from 400 farmers. The result revealed that most farmers prefer intermediary-based channels, especially wholesaler and commission agent routes, with education, income, farming experience, market distance, and payment conditions significantly shaping these choices. The findings emphasize the need to strengthen market infrastructure, improve access to information, and promote collective institutions (FPOs/cooperatives) to enhance farmer participation and income. *Rajiv Pandey*

Wang, N., Mutzner, N., & Blanchet, K. (2025). 'We Need Time...': An Expert Survey on Societal Acceptance of Urban Drones. *Science and Public Policy*, 52(3), 356–374.

- This study delves into experts' perspectives on urban drones to supplement existing knowledge by improving the understanding of acceptance factors and associated challenges. The results indicate that themes of privacy, safety, and regulation are recurring. Notably, trust towards different institutions deploying drones varies, while the need for dedicated awareness and education efforts to inform public understanding is an emergent theme. *Ning Wang*

Wu, J., Gong, J., Sun, F., Zhou, S., Kausar, T., Li, T., Cui, L., Xu, Z., Degen, A. A., Kuzyakov, Y., & Bai, Y. (2025). Active Restoration of Carbon Poor Degraded Grassland Accelerated Subsoil Carbon Accumulation and Turnover. *Earth's Future*, 13(9).

- This paper (Wu et al., 2025, *Earth's Future*) is currently at an early citation stage (5 times) but shows strong potential for impact. It provides quantitative evidence that restoration can substantially enhance subsoil carbon storage (up to ~80% increase under certain conditions) while also revealing significant shifts in carbon turnover and temperature sensitivity across soil profiles. Importantly, the study highlights that restoration outcomes vary depending on initial soil carbon status, offering condition-specific insights rather than one-size-fits-all solutions. Given that grasslands account for approximately 34% of global terrestrial carbon, this work has clear global relevance, advancing understanding of subsoil carbon dynamics and offering scalable implications for ecosystem restoration, climate mitigation, and sustainable land management. *Rajiv Pandey*

## Education

Bennet, L. M., Gadlin, H., & Khuri, S. (2025). *How to Succeed at Collaborative Research. A Practical Guide for Teams*. Bristol University Press.

- Today's complex research challenges demand effective teams, yet researchers rarely receive training in teamwork skills crucial for collaborative success. This book fills that gap, outlining theory and providing practical actions that equip researchers with tools to build and sustain effective teams. Drawing on organizational psychology, team science and the authors' own experience, it offers concrete practices for fostering collaborative innovation, managing diverse perspectives and achieving high-impact outcomes. An essential reading for researchers, administrators and facilitators seeking to build high-performing teams, this indispensable resource enables researchers to effectively work across different disciplines and sectors to meet the evolving demands of funded research. *Sawsan Khuri*

Bernert, P., Wanner, M., Fischer, N., & Barth, M. (2025). Design principles for advancing higher education sustainability learning through transformative research. *Environment, Development and Sustainability*.

- This paper is notable because it tackles a major gap: while transformative research has expanded rapidly, universities still lack concrete guidance on how to teach students to engage in real-world sustainability transitions. Its innovation lies in proposing a practical set of design principles for transformative learning modules, grounded in both sustainability education research and transdisciplinary practice. By demonstrating these principles through the two-semester Transformative Innovation Lab, the authors show how higher education can more effectively prepare students to co-create urban sustainability solutions with local partners. *Benjamin Hofmann*

Block, T., Prové, C., Dehaene, M., Abeele, P. V., & Beeckmans, L. (2025). Understanding urban sustainability from Mode 2 Science and transdisciplinary education: How Master Thesis Ateliers of the Ghent Stadsacademie tackle wicked issues. *Environment, Development and Sustainability*, 27(9), 20539–20564.

- This publication aims to investigate how students developing master's theses in an inter- and transdisciplinary setting can learn about a specific urban issue, and the challenges this transdisciplinary education entails. This is explored in a Master's Thesis Atelier, a collaborative project spanning one academic year. Four to eight Master's students and their supervisors from various disciplines focus on a specific urban issue and collaborate with non-academic stakeholders to explore and address that issue. *Stefan Müller*

Collado, J. & Esterada, A. Filosofías regenerativas: un enfoque complejo, intercultural y transdisciplinar para la formación docente en el Antropoceno/Capitaloceno. In: Mendoza, C. O., Jadán-Heredia, D. & León León, E. A. (2025). *Las Fronteras de lo Humano: La necesidad de una filosofía para la sociedad contemporánea*. pp. 137-164. Cuenca: Dirección de Publicaciones y Editorial Casa de la Cultura Ecuatoriana Benjamín Carrión.

- In "Regenerative Philosophies: A Complex, Intercultural, and Transdisciplinary Approach to Teacher Training in the Anthropocene/Capitalocene," Javier Collado takes on a significant challenge. Through the exploration of regenerative philosophies as a transdisciplinary field of study based on the principles of interconnection, interdependence, coevolution, and biophysical regeneration, he seeks to prepare 21st-century citizens to confront the socio-environmental challenges of the Anthropocene/Capitalocene in a resilient, creative, and bioethical manner. *Carlo Orefice*

Eschen, R., Eigenbrode, S., Hall, T., Rinkus, M., Schaffner, U., & O'Rourke, M. (2025). How to promote the integrative ability of transdisciplinary graduate students. *Environmental Science & Policy*, 170.

- Important contribution to understanding and shaping ITD in graduate/ PhD supervision and training, a career stage over underconsidered. Useful and nuanced understanding of multiple dimensions of integration, as well as concrete recommendations for practice of ITD PhD research. *Annemarie Horn*

Gobs, J. (2025). Planting futures: School-based food forests and their contribution to holistic education for sustainable development. *GAIA - Ecological Perspectives for Science and Society*, 34(2), 97–105.

- The paper addresses education for sustainable development through the lens of food systems transformation and human-nature connectedness. The author employs a mix of disciplinary and transdisciplinary approaches, including interviews and a future workshop. The inclusion of practical experience through the actors' involvement strengthens the research's relevance and practical applicability. *Ulrike Sehy*

Irabor, T.-J., Yameogo, P. S. A., Perrin, L., Pétré, B., Faulx, D., Ruëgg, S. R., & Antoine-Moussiaux, N. (2025). Gaming for change—Exploring systems thinking and sustainable practices through complexity-inspired game mechanics. *Humanities and Social Sciences Communications*, *12*(1), 680.

- This paper presents a serious game—Tipping Point—to provide an immersive experience of how we interact with complex adaptive systems. It illustrates Donella Meadows' leverage points through lived experience. *Simon Rüegg*

Kligyte, G., Melvold, J., Pratt, S., & Bowdler, B. (2025). Educating for sustainable and equitable futures: A transdisciplinary future-making capability framework. *Futures*, *173*.

- This paper explains how transdisciplinarity enlarges approaches to educating for sustainable and equitable futures. The authors synthesize diverse education literature and frameworks to present a Transdisciplinary Future-making Capabilities Framework. Eight transdisciplinary future-making capabilities for complex challenges and systems transformation are proposed and defined. *Roderick Lawrence*

Nicewonger, T. and Amelink, C. (eds) (2025) *Global Insights into Transdisciplinary Higher Education Initiatives*. Blacksburg, USA: Virginia Tech Press.

- Get a practical look at how transdisciplinary higher education initiatives are built and sustained across different institutional contexts. Its “behind-the-scenes” perspective makes the successes, tensions, learning processes and management practices visible. For anyone in the international ITD community working to embed TD in curricula, programmes or university strategies, it is an accessible and inspiring open-access resource. *Theres Paulsen*

Swiss Young Academy. (2025). *Innovative Teaching Formats at the Science-Society Interface: Reflections and Future Directions in Swiss Higher Education*.

- This report features illustrative examples from Swiss higher education institutions of science-society teaching format. *Christoph Küffer*

Tolbert, S., Hipkins, R., Cowie, B., & Waiti, P. (2025). Epistemic agency, Indigenous knowledge, and the school science curriculum: Reflections from Aotearoa New Zealand. *International Journal of Science Education*, *47*(15–16), 1986–2002.

- In this article, the authors take up ongoing questions about relationships between epistemic agency, Indigenous knowledge, and the school science curriculum. The authors were brought together as curriculum advisors to provide guidance in the form of a conceptual framing for teams working on updates to Aotearoa New Zealand's national curriculum and assessment frameworks. *Ritodhi Chakraborty*

Tuin, I. van der. (2025). *Key Texts on Interdisciplinary Higher Education*. Policy Press.

- A broad survey of excerpts from key texts about interdisciplinary education with expert commentary. *Rick Szostak*

Yetimova, D. S. (2025). *Generational Shifts in Transnational Cinematic Flows: Migration, Belonging, and Identity in Turkish–French Film Cultures*.

- This book offers a transdisciplinary analysis of Turkish–French film cultures by bridging cinema studies, migration studies, sociology, and cultural theory. Through a generational perspective, it demonstrates how cinematic narratives function as epistemic spaces where questions of belonging, identity, and

mobility are co-produced across disciplines. The work is particularly innovative in showing how film operates not merely as representation but as a transnational knowledge practice. *Serhat Yetimova*

### **Contributors**

Gabriel Peredo Albornoz, Martina Blum, Ritodhi Chakraborty, Carole Després, Ana Gretel Echazú Böschemeier, Thomas Flüeler, Adrienne Grêt-Regamey, Annemarie Horn, Johanna Jacobi, Almut Jödicke, Machiel Kesstra, Sawsan Khuri, Margaret Krebs, Christoph Küffer, Maryna Lakhno, Roderick Lawrence, Stefan Müller, Carlo Orefice, Ignacio Palomo, Theres Paulsen, Rajiv Pandey, Alice Ranorojanoa Pélerin, Garry Peterson, Hanna Salomon, Ulrike Sehy, Rick Szostak, Yuriy Rotenfeld, Simon Rüegg, Christina Elena Popa Tache, Therea Tribaldos, Svetoslava Nina Urgese, Ning Wang, Serhat Yetimova, Jialin Zhang

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