‘Intercultural Endeavors’
Explored at ‘TD-Net’ Conference

By Julie Thompson Klein, Machiel Keestra, and Rick Szostak

The 2017 international meeting of the Swiss-based Network for Transdisciplinary Research, known as td-net, took place September 11-15 on the campus of Leuphana University (pictured) in Lüneburg, Germany. It highlighted the theme of “Intercultural Endeavors” in transdisciplinary research and education, explored in keynote addresses, plenary panels, and concurrent sessions supplemented by training workshops and special meetings. This report is an overview of the program, a copy of which is available at <http://www.transdisciplinarity.ch/en/td-net/Konferenzen/ITD-2017/Detailed-programme.html>.

The Swiss Academic Society for Environmental Research and Ecology launched td-net in the year 2000. When the Swiss Academies of Arts and Sciences became its sponsor in 2008, td-net began a series of international conferences focused on transdisciplinary research process. The first meeting, held in 2008 at the ETH in Zurich, highlighted “Problem Framing” as a decisive initial phase. The 2009 conference at the University of Berne concentrated on “Integration,” the 2010 conference at the University of Geneva on “Implementation,” and the 2011 conference at Berne on “Evaluation.” After a four-year period of Swiss-oriented conferences td-net resumed international events in 2015 at Basel, turning to the theme of “Sustainability and Health” while meeting in parallel with the European Conference of Tropical Medicine and International Health. The Basel event also featured an international panel presenting online resources: including td-net’s toolbox “Co-producing Knowledge,” the US-based National Cancer Institute’s “Team Science Toolkit,” the “Resources” link on the website of the Integration and Implementation Sciences network (I2S), the Association for Interdisciplinary Studies’ “About Interdisciplinarity” webpages, and a set of wiki-based “Short Guides” to interdisciplinarity by Catherine Lyall, et al.

The Theme of Interculturality

The Leuphana conference took a major step beyond the 2015 panel featuring online resources by scheduling plenary and concurrent sessions with speakers from multiple world regions and cultures. Conference organizers also arranged parallel co-conferences in Mexico, New Zealand, Uruguay and Chile, with periodic live reports. To get a glimpse of the scope of representation: Tuesday’s sessions included clusters of individuals from Europe, South America, and South Africa; from Europe, China, and Australia; from the USA, Europe, and Japan; from the UK, Netherlands, and Mexico; and from Europe, South Africa, Canada, and South America. Likewise, a Wednesday plenary panel

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on “Research Integration and Implementation” explored commonalities and differences across the UK, USA, and Brazil. Two additional presentations also contributed international and intercultural perspectives. In a virtual plenary session Rawiri Smith from New Zealand compared the Maori greeting ceremony Powhiri with a model of transdisciplinary research collaboration. And, building on experience in Brazil, Danilo Streck asked “What can participatory action research and transdisciplinarity learn from each other?”

Both presentations provided powerful comparative lenses throughout the conference. The indigenous ritual of Powhiri starts with an invitation to all participants, followed by explicit recognition of differences. It then formulates respect for other belief systems, “weaving” together different participants or positions. The final step is sharing experiences to gain confidence. In this manner, Powhiri triangulates recognizing differences, integrating knowledge, and building trust. Participatory action research, which is more prominent in Brazil than elsewhere, is influenced by thinkers such as Kurt Lewin in the 1940s and Paolo Freire in the 1970s. Instead of assuming neutrality, researchers are responsible for producing knowledge that potentiates social transformation, making “practicability of knowledge” a criterion of validity. Streck suggested transdisciplinarity also evokes democratization of knowledge and intercultural dialogue.

In addition, Machiel Keestra hosted a plenary on “Teaching and Learning in Transdisciplinary Environments.” Panelists from Australia, Brazil, Germany, and Switzerland debated whether the academy can provide students the necessary knowledge, skills and competencies to operate in the extra-academic world with its multiple dimensions. While noting how slowly universities adjust to young academics’ current expectations, they also noted many universities are co-developing “hybrid spaces” that facilitate transdisciplinary collaboration. Yet, students and faculty alike need to appreciate the extra effort and time it takes to communicate with individuals from other groups. Julie Klein and Bianca Vienni from Uruguay also co-hosted a double session on institutional and cultural conditions for change. They invited representatives from Brazil, Scotland, Australia, and Germany to describe how historical and geographical conditions have shaped their theory and practice, modifications and transformations over time, and related challenges and opportunities. The session began with a conceptual framework for change based on a robust portfolio that accounts for both structure and behavior, while orchestrating transformative and incremental approaches, strategic targeting and general loosening of barriers, and bottom-up and top-down initiatives. The session underscored the need for a systemic approach to rethinking institutional space that bridges organizational structure, administration, and policies; leadership, advocacy, and stewardship; funding; infrastructure and support; recognition and rewards.

The AIS Open Meeting

On Monday of the conference we hosted an open meeting of AIS. The purpose was two-fold: to describe our mission, activities, and resources and to explore with participants ways of serving common interests. Many who were present were representatives and/or members of kindred organizations, such as td-net, Integration and Implementation Sciences (I2S), the Science of Team Science (SciTS) network and the Center for Interdisciplinarity (C4I) Toolbox Dialogue Project. In welcoming participants, Keestra explained how AIS since its birth in 1979 has taken an interest in, on the one hand, assembling best practices for greater consistency and rigor and, on the other hand, appreciating the increasing diversity of approaches. Over the years individual AIS members made connections with other organizations, leading to collaborations and presentations at each other’s conferences. At the same time, the Board and larger membership were becoming aware of other sources of diversification. As a result, membership on the Board and the presidency expanded to include Canada and Europe. More recently the AIS mission has also ex-
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AIS Interdisciplinary Pathways

We were particularly struck by the number of new scholars who had been seeking precisely the sort of information that AIS and other websites provide. This realization reinforced our conviction that increased international collaboration between AIS and kindred organizations could potentially expose more people to the valuable resources each has to offer. We were particularly struck by the number of new scholars who had been seeking precisely the sort of information that AIS and other websites provide.

This realization reinforced our conviction that increased international collaboration between AIS and kindred organizations could potentially expose more people to the valuable resources each has to offer. When this session was formally at an end, several individuals expressed interest in continuing to talk. So, we remained with them to further explore ideas for inter-organizational cooperation—an aim that would later during the week materialize in a new proposal.

Debating Interdisciplinarity

Featuring AIS Responses

On Tuesday of the conference Roderick Lawrence, a member of the td-net board and honorary faculty at the University of Geneva, moderated a
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session in which we addressed current challenges to inter- and trans-disciplinarity. Lawrence linked our session to the INTREPID/COST initiative, funded by the European Union to investigate the nature of interdisciplinarity and its place in the academy. (See below for further discussion of INTREPID.)

Klein responded to two recent books. In making a “case against interdisciplinarity,” Jerry Jacobs contends its promises are illusionary, blurring boundaries does not promote more integrated research and teaching, interdisciplinarity structures and topics balkanize knowledge by creating more units, and administrative prioritizing shifts power and decision making to centralized control by deans and presidents. In the interest of product development and biomedical fields. In glossing the title of his book, In Defense of Disciplines, Jacobs rejects the charge disciplines are static “hermetically sealed silos” impeding the flow of ideas, stifling innovation, and thwarting integrated solutions to complex problems. He correctly acknowledges limits of citation analysis, criticizes Penn State’s proliferation of separate centers for homeland security, interrogates the narrow premise that application is an integrative force, identifies multiple types of interdisciplinarity in journals, and questions whether it is a transitional phase or permanent form. Yet, Jacobs dismisses terminological distinctions as a “jungle,” claims all proponents of interdisciplinarity aim to overthrow the disciplinary system, and ignores literature documenting the variety of majors, complexity of interdisciplinary fields that operate both within and beyond disciplines, and the need for strong communities of practice. In the end, he favors confining interdisciplinarity to centers or institutes, with new hires occurring within departments.


[Richard] Szostak responded to misperceptions in Frickel, et al.’s edited collection Investigating Interdisciplinary Collaborations…[which] criticizes an interdisciplinarity. Rick contends, that bears little resemblance to the type generally pursued within AIS…The major question, Rick asked, is whether we should ignore such critiques or respond to them…. Such critiques of interdisciplinarity, [Machiel] Keestra observed in turn, often assume in addition to continuing fragmentation that the current pluralism and divergence prevalent in academic disciplines make it implausible interdisciplinary integration is a feasible and valid goal.

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Practice.” Any field should be subject to critique, but based on deep understanding of its literature. Graff’s claim to originality is belied by existing studies of what he claims is unique to his book: including historical and comparative case studies, institutional and organizational factors, the centrality of problems & questions, conflicting definitions and purposes, the vitality of disciplinary relations, and overstated claims, exaggerations, myths, and errors.

Szostak responded to misperceptions in Frickel, et al.’s edited collection Investigating Interdisciplinary Collaborations. Readers interested in a fuller account may access Rick’s review in the January 2017 AIS newsletter (Vol. 39, No. 1). This volume criticizes an interdisciplinarity, Rick contends, that bears little resemblance to the type generally pursued within AIS. The editors argue proponents of interdisciplinarity consider it superior to disciplines, criticize disciplines as silos that constrain free development of knowledge, seem oblivious to ongoing interactions among disciplines, and purport interdisciplinary interactions are free of status hierarchies and power asymmetries within disciplines. The major question, Rick asked, is whether we should ignore such critiques or respond to them. They clearly have an audience. If we do not define the nature of interdisciplinarity and best practices, he admonished, critics will seize upon other practices and arguments as evidence of the dangers of interdisciplinarity. It is tempting to be sanguine in an era in which granting agencies and university presidents laud interdisciplinarity. However, many chapters

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document failures of institutionalization, providing fertile ground for those who misunderstand its nature and thereby limit opportunities for quality scholarship.

Such critiques of interdisciplinarity, Keestra observed in turn, often assume in addition to continuing fragmentation that the current pluralism and divergence prevalent in academic disciplines make it implausible interdisciplinary integration is a feasible and valid goal. Acknowledging multiple forms of pluralism flourish in most disciplines—e.g., causal, theoretical, methodological, and explanatory pluralism—Machiel questioned implications of pluralism for interdisciplinarity. Is it the only option for integration, as a form of monism in which multiple theories or explanations are reduced to one? Or a plurality of perspectives, each functioning on its own merits and downsides in isolation? One alternative is to seek balance between different perspectives, while rendering explicit aims and background assumptions. Language philosopher Nelson Goodman proposed examining how we shape conceptual categories, constantly weighing whether to revise category boundaries in light of new experiences or observations. Similarly, political philosopher John Rawls proposed an ethical process of “Reflective Equilibrium,” in which ethical norms are weighed against each other, with specific theories such as human psychology and economy in a background role. This process accommodates differences between perspectives, while avoiding the Skylla of isolationist or monist forms of interdisciplinarity and the Charybdis of rejecting a possibility of integrating perspectives altogether.

Taking Stock
When we wrote our report on the 2009 td-net conference in Berne, we reflected on the state of transdisciplinarity (TD) at the time. We highlighted

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Yet, conceptual frameworks are still needed for solving real-world problems, the role of complexity needs wider recognition, and transdisciplinarity is still hindered by lack of wide credibility and a weak capacity to influence change and guarantee institutional or political support.

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Of Silence and Space
By John DeCarlo

Of Silence and Space…

To seek the Muse:
To hover down into the fibers —
Of a cocoon, and burrow, further still,
Into its own inner cocoon…

Does silence, as it expands, occupy space?
Or, does inner space, allow for silence?

Like the sacred resonance of a Buddhist bowl
Chomsky’s sage like presence — un-expectantly
Fills the space of the coffee shop,
Enriching my inner silence

For what does one say — to the luminary who
Has ventured into the prehistoric womb of language:
Dissected its grammatical roots like an unearthed onion
Revealed the vile venom concealed within
The diplomatic discourse of nation states?

I search for a proper participle,
Hoping it does not dangle, or
Veer off into inconsistency

But his humanistic touch, beyond haptically
Grasping my hand, offers the poet, to me, the opportunity
To explore an infinite array of semantic constructions

Yes, I am left silent, his fleeting presence —
Like a golden butterfly melding into summer sun —
Far beyond the reach of my ecstatic tongue…

Of Silence and Space —

By John DeCarlo

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Summer Symposium set for June 1-2 in Hamden, Ct.

Registration is now open for the 2018 Summer Symposium of the Collaborative for Interdisciplinary and Integrative Studies, based at the College of Arts and Sciences at Quinnipiac University.

Registration fee is $100, and registration is available through May 1. Meals are included with the fee.

Plenary speakers for the symposium include Kwami Coleman, assistant professor at New York University, and Robert Frodeman, professor of philosophy and religion at the University of North Texas.

Coleman is a musician, composer, and musicologist specializing in improvised music. His research interests include histories of experimentalism in music, jazz historiography, the music of the African diaspora, music aesthetics and technology, political economy, and cultural studies.

Frodeman is a founding member of the Afro-Latin@Forum, a non-profit organization devoted to the study and increased visibility of Latinos of African descent in the United States, affiliated with NYU’s Steinhardt School. In 2017, he released his debut album, Local Music.

Frodeman is the founding director of the Center for Study of Interdisciplinarity. He is the author of several articles and books on interdisciplinarity, including Sustainable Knowledge: A Theory of Interdisciplinarity (2013) and he served as editor-in-chief of the Oxford Handbook of Interdisciplinarity (2017), now in its second edition.

Frodeman’s research interests include continental philosophy, environmental ethics and philosophy, philosophy of science policy, and science and technology studies.

The mission of the Collaborative for Interdisciplinary and Integrative Studies is to afford students and faculty opportunities to put into practice the relevance and value of the arts and sciences for their everyday lives.

Participants may contact the Best Western Plus North Haven Hotel, 201 Washington Ave., North Haven, CT, 06473. A block of rooms has been set aside at a special rate for the Quinnipiac Summer Symposium.

Further information may be obtained from Dr. Mary Paddock, Director for the Collaborative for Interdisciplinary/Integrative Studies, at 203-582-8951 or mary.paddock@qu.edu.

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in particular expansion of the earlier definition of TD as an overarching synthetic framework to involve stakeholders in the research process on societal problems. In a closing address for the Leuphana conference Klein tallied progress over time, building on Roderick Lawrence’s closing keynote at the Basel meeting in 2015 in which he tallied strengths and limits of inter- and trans-disciplinarity to date.

• In the realm of Publications, Lawrence depicted significant increases measured by bibliometric tools. They are partial indicators, however, since major databases such as Web of Science and Scopus do not capture books, chapters, and regional non-English authors from social sciences, humanities, and some applied fields. They also omit reports that assess progress and miss some socially relevant interactions. Adding books, as well, affirms Lawrence’s journal-based measurement, including works of td-net scholars such as the 2007 Principles of Transdisciplinary Research and the 2008 Handbook of Transdisciplinary Research. Two special issues of the journal Futures in May 2004 and January 2015 tracked further developments. And, the topic of transdisciplinarity has expanded presence in particular domains: including Doucet & Janssens’ 2011 collection on Transdisciplinary Knowledge Production in Architecture and Urbanism and Huutoniemi & Tapio’s 2014 anthology Transdisciplinary Sustainability Studies.

• Theoretical Advances of transdisciplinarity, Lawrence reflected, are marked by a growing body of concepts, definitions, and models. Yet, conceptual frameworks are still needed for solving real-world problems, the role of complexity needs wider recognition, and transdisciplinarity is still hindered by lack of wide credibility and a weak capacity to influence change and guarantee institutional or political support. The INTREPID/COST initiative featured in Monday and Tuesday sessions of the Leuphana conference affirmed the challenge of capacity: contrasting widening rhetoric of support for interdisciplinarity with limited influence on science policy, funding, and academic status, structure, governance. INTREPID is aimed at

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informing the next EU programming period (FP9) and final phase of the Horizon 2020 project.

- The strengths of *Methodological Advances* include a shift from conventional knowledge production to innovative processes and civic science activities that redefine contributions of stakeholders. Yet, integrated strategic research projects are still needed to address broad social and political dimensions of research. That said, in recent years new scholarship on methodology has advanced the repertoire of approaches: including the work of Bergmann, et al. comparing transdisciplinary methods; and MacDonald, et al. on dialogue methods. The 2017 conference also included a Monday workshop on the methodological framework of “Generic Picturing” and a Thursday session on “Methods & Methodologies Revisited.”

- Looking Back to the Future, Lawrence noted a number of strengths including active learning, practice, team teaching, contributions of humanities and social sciences, and recognition of cultural dimensions. Multidisciplinary teaching, though, is often more comfortable than integrated approaches, scientific knowledge still tends to dominate, and the added value of transdisciplinarity is not fully appreciated by academics and students. A forthcoming volume on transdisciplinarity and learning, though, signals new understandings: *The Art of Collaborative Research and Collective Learning*, subtitled *Transdisciplinary Theory, Practice, and Education*, is edited by Dena Fam, Linda Neuhauser, and Paul Gibbs. Parallel sessions at Leuphana also tracked an expanding repertoire of approaches including transformational learning, brokering beyond education, and building student capacity to address complex societal challenges.

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At this historical point, inter- and trans-disciplinary research and education also entail multiple forms of boundary crossing involving more than academic “disciplines,” implied in their names. Four developments stand out. In addition to the prominence of stakeholder inclusion in research, aimed at co-producing more “socially robust knowledge,” research is taking place increasingly across boundaries of the academy, government and industry. Although often conflated with the term “interdisciplinary,” the growing practice of “interprofessionalism” also signals renewal of research and patient care in the health system, bringing together not only insights from academic disciplines but also occupational professions of physicians, nurses, therapists, social workers, and other caregivers. Given emphasis on Interculturality, the Leuphana conference also called attention to crossing cultural and political boundaries of the South and the North.

Next Steps

Recommendations abound. The 2016 LERU report on interdisciplinarity from the League of European Research Universities declared disciplinarity and interdisciplinarity are equally important for advancing science and solving societal problems. However, disciplines still dominate even though research increasingly takes place elsewhere. Moreover, many of the 66 recommendations in the LERU report have been voiced repeatedly. The 2004 EURAB report from the European Research Advisory Board, the 2005 report on Facilitating IDR from the US-based National Research Council (NRC), the 2014 NRC report on Convergence, and the 2015 report on Enhancing the Effectiveness of Team Science present a range of familiar recommendations, including calls for removing institutional barriers, creating education and training programs, building and sustaining collaborative research cultures. Two sessions on Monday at Leuphana also focused on the topic of inter- and trans-disciplinary careers.

In its double session on Monday of the conference, organizers of the INTREPID/COST initiative also invited conference participants to join them in exploring the topic of “Thinking about The Future of Universities.” This topic echoed their call in their fourth INTREPID report in May 2017 to imagine...
future "As If Inter- and Transdisciplinary Mattered." Acknowledging tensions between differing imperatives, especially commercialism versus democratization, and innovation versus critique, they posed two further questions. How will knowledge be generated, distributed, owned and used in future? And, where will it be generated, distributed, owned and used? The AIS Open Meeting and ensuing conversations offered a partial answer to these questions. Conference participants representing kindred organizations were also acutely aware of the value and need to strengthen inter-organizational ties and to seek ways for collaboration: not just for sustainability of their organizations but shared commitment to solving complex problems the world is facing and depend upon collaborations across multiple dimensions of diversity. Only then can insights and solutions emerge that are robust enough to not easily fail when tested or implemented outside the academy or under other societal and environmental conditions.

Reporting on the Berne conference in 2009, we also noted initial conversations aimed at building a network of organizations known as INIT. Participants in new conversations about inter-organizational cooperation at the Leuphana meeting have developed a proposal and timeline for developing a new network, federation, or alliance of organizations involved in both interdisciplinarity, transdisciplinarity, and other related practices. The next step is discussing prospects with related governing boards, a move the AIS board already endorsed during its meeting at the October 2017 conference held at the University of Maryland Baltimore County. We will post further details as they emerge on the INTERDIS listserv and in this newsletter.

References
Note: All plenary sessions from the Leuphana conference can be viewed online at <http://tinyurl.com/ITDconf>. For a report on the 2009 meeting in Berne, see our account in the March 2010 issue of the AIS newsletter Integrative Pathways (Vol. 32, No. 1). Newell’s remarks on the state of theory appear in Vol. 31 of the AIS journal, along with Szostak’s account of re-search and Klein’s on institutionalization. Szostak has also published thoughts on his presentation about challenges to interdisciplinarity as a blog on the I2S website, and Keestra has done the same for the plenary session on teaching and learning. To access the blog, go to <https://i2insights.org>.


Author Bios

Julie Thompson Klein is Professor of Humanities Emerita in the English Department at Wayne State University and Affiliate of the TdLab at the ETH-Zurich university for science and technology. Klein has received awards for outstanding scholarship on interdisciplinarity, transdisciplinarity, and team science, including the Kenneth Boulding Award. She has also published numerous books, chapters, and articles on inter- and trans-disciplinarity and was Associate Editor of The Oxford Handbook on Interdisciplinary-ity. She is also co-editor of the University of Michigan Press series Digital Humanities @digitalculturebooks.

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Machiel Keestra is Assistant Professor of Philosophy in the Institute for Interdisciplinary Studies at the University of Amsterdam, a researcher at the Institute for Logic, Language and Computation, and a member of the research group Neurocultures & Neuroaesthetics. He has published articles, book chapters, and (edited) books on philosophy, human action and cognition physics, and mathematics. He is also an editorial board member of the Amsterdam University Press series Perspectives on Interdisciplinarity, for which he co-edited An Introduction to Interdisciplinary Research: Theory and Practice.

Rick Szostak is Professor and Chair of the Department of Economics at the University of Alberta. He is author and co-author of books on interdisciplinary knowledge organization and the theory and process of interdisciplinary research as well as teaching and program administration. He has also been a consultant to interdisciplinary research groups and coordinated development of About Interdisciplinary and Interdisciplinary General Education on the AIS website. He received the AIS Kenneth E. Boulding Award in 2017 for his long-term contributions to interdisciplinary scholarship.

NOTE: Klein, Keestra, and Szostak have all served as Presidents of AIS, in 1987-88, 2014-16 and 2011-2014, respectively.

About AIS

The Association for Interdisciplinary Studies is the U.S.-based international professional association devoted to interdisciplinary teaching (including service learning), research, program administration, and public policy. Interdisciplinarity integrates the insights of knowledge domains to produce a more comprehensive understanding of complex problems, issues, or questions. AIS serves as an organized professional voice and source of information on interdisciplinary approaches and the integration of insights from diverse communities to address complex problems in education and research. Founded in 1979, it is incorporated as a non-profit 501(c)3 educational association in the state of Ohio.