

International Transdisciplinarity Conference 2021

Creating Spaces and Cultivating Mindsets for Learning and Experimentation

Online, 13-17 September 2021

Co-organised by the Network for Transdisciplinary Research and the Transdisciplinarity Lab, ETH Zurich, Switzerland

Conference Report

Organising institutions

ETH Zurich

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td-net

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The conference report is available in pdf format on the website of td-net

TABLE OF CONTENTS

Table of Contents	3
Activities	4
Results	5
Output	9
Partnership aspects	12

ACTIVITIES

The ITD Conference 2021 Creating spaces and cultivating mindsets for learning and experimentation was coorganised by the Network for Transdisciplinary Research, td-net of the Swiss Academies of Arts and Sciences and the Transdisciplinarity Lab (TdLab) of ETH Zurich. It was an online conference taking place between 13 and 17 September 2021. ITD 2021 illustrated the global nature and the diversity of thought within the transdisciplinarity (td) community within a virtual meeting space.

We developed five thematic streams reflecting the current challenges of td. In order to advance transdisciplinary concepts and methodologies, the first stream – Integrative td – centred on how to integrate expertise from multiple fields of knowledge (i. e., systems thinking, participatory action research, humanities, arts, design, amongst others) and professions. While acknowledging differences differences and plurality in language and action, the conference sought to contribute to envisioning and co-producing alternative futures.

The second stream – td-on-the-ground – focused on making transdisciplinary processes more tangible and explicit to practitioners and researchers. Participants were invited to take a close look at transdisciplinary practices that took place on the ground to better understand their impact and effectiveness. We discussed how to improve existing transdisciplinary practices based on these examples, also with the aim to facilitate inclusive and equitable research in different regions.

In a third stream – Global and virtual td – we opened a platform for connecting diverse communities and practices. By enabling them to learn from each other, the ITD Conference offered a space for virtual environments to leverage transdisciplinary collaboration, especially reflecting on their impact on the Global South-Global North context.

The fourth stream – td learning for transformation – focused on the potential of transformation through transdisciplinary learning. Here, we highlighted collaborative learning, including the context of Education for Sustainable Development that helps students to build the capacity and courage to creatively take on societal challenges. Participants shared experiences on how to better support approaches to various forms of transformative learning within diverse and inter-cultural contexts.

The fifth stream – Institutionalising and funding td – reflected on the increasing role td is playing in higher education institutions and in society and how to assess its benefits. Transdisciplinary career paths are being developed in different institutions, demanding specific support and infrastructures. In line with this, we discussed funding schemes, programme designs and manage-ment structures and how these could attract financial support for transdisciplinary research.

RESULTS

ITD 2021 provided a platform for engagement and action that linked transdisciplinary research, learning, and practice. Real-world labs, living labs, social innovation, Global South and Global North encounters and transition experiments served as inspirations for the design and imple-mentation of this event. To strengthen the potential of td to address societal challenges, the con-ference welcomed educators, researchers, practitioners, industry and business representatives, funding agencies, decision makers and students across sectors and disciplines. In total, we had 528 registered participants from across the world (Figure 1).

The ITD 2021 had several unique features compared to previous editions. First, we adapted to pandemic realities by making the conference fully online. We used this as an opportunity to open new ways of engaging with one another by building a set of online formats that aimed at optimising participants' experience, both as a contributor and as a member of the audience. We tried to accommodate a wide swath of global time zones and languages. Attendees chose from 62 activities that spanned across the five topic streams (Figure 1).



Quick overview of some facts

- 207 contributions (146 pre-crafted, 57 real-time)
- 9 special sessions (5 EC, 2 SHAPE-ID, 2 ITD-Alliance)
- 7 key notes/panels with a total of 18 speakers and 8 moderators
 - 12 hours recorded (KN-7 only tomorrow)
- 8 Global Apéro
- 125 sessions in iStage
- 146 poster booths in iStage (we received 19.5 GB of data, in total around 13 hours of videos)
- 528 registered participants (DE: 115, CH: 91, NL: 37, US: 32, SA: 24, AU: 22, UK: 21, SE: 20, AT: 17, MW: 14, MX: 13, CA: 11, IE: 11, JP: 10, CL: 9, BR: 8, FR: 7, UY: 6, FI: 5, NO: 5, etc.)
- Conference booklet (311 pages) available online https://akademien-schweiz.ch/de/current/events/itd-conference-2021/programme/

Figure 1 some core facts about the ITD conference 2021

We offered both real-time workshops (N = 57) and the pre-crafted contributions (N = 146) that were produced in advance and made available throughout the event that allowed participants to share their work in a variety of mediums (N = 146 poster booths). Pre-crafted contributions were discussed in specific sessions (equivalent to poster sessions in a conventional conference). Real-time conference contributions included workshops and other forms of interactive events designed by participants. Live keynote talks and panel discussions (N = 7, Figure 2) complemented these formats. As an ensemble, keynotes and panels reflected diverse perspectives on and pathways through the history and the future of td.

istrge will be running for another four weeks. Registered participants can still watch the recorded key talks, plenary panels and all the pre-crafted contributions!

Important: all other functionalities (chat, networking tables etc.) are no longer available and there is as well no TechSupport.

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    Marcel Tanner, Professor, President of the Swiss Academies of Arts and Sciences, Director Emeritus STI

Moderation
• Theres Paulsen, Head of td-net, Swiss Academies of Arts and Sciences
KN-2: TD and sustainable development - 1b. (Panel discussion)
Panelists
• Manuel Flury-Wahlen, Advisor, former Head of Division, Swiss Agency for Development and Cooperation (SDC)
. Tobias Bade Strøm, Special Advisor for EU Research, The Research Council of Norway
. Tatjana Von Steiger, Head of Global Policy Outreach, Wyss Academy for Nature, Switzerland
• Ortwin Renn, Prof. Dr. Dr., Scientific Director, Institute of Advanced Institute of Sustainability Studies (IASS), Germany
KN-3; Collaboration towards impact - 2a. (Tandem talk with moderated discussion)
• Flurina Schneider, Prof. Dr., Scientific Director ISOE and Professor at Goethe University Frankfurt
• Dhanush Dinesh, Head of Partnerships and Outreach, CGIAR Research Program on Climate Change, Agriculture and Food
• Danilo Streck, Professor at the Graduate School of Education - Unisinos University (Brazil)
KN-4: Collaboration towards impact - 2b. (Panel discussion)
· Pietro Mona, Ambassador, Permanent Representative of Switzerland to the African Union, Addis Ababa
• Melissa Robson-Williams, Environmental scientist, transdisciplinary researcher, Manaaki Whenua, New Zealand

    Ariane Koek, Creative Director, Strategic Associate and Consultant on Art Science Technology Ecology

• Tobias Buser, td-net Swiss Academies of Arts and Sciences, and Global Alliance for Inter-and Transdisciplinarity
KN-5: TD as collective - 3c. (Panel discussion - saguf event)
. Jane Ohlmeyer, Erasmus Smith's Professor of Modern History, Trinity College Dublin
. Jenny Lieu, Dr., Assistant Professor, TU Delft
• Sven Schade, Policy Officer, European Commission, Directorate General for Research and Innovation
· Manfred Max Bergman, University of Basel, Social Transitions Research Group, President saguf, Research Council SNF
· Basil Bornemann, Postdoctoral researcher, Sustainability Research Group, University of Basel, Board Member saguf
· Christian Pohl, Co-Director, TdLab, ETH Zürich
KN-6: TD as collective - 3a. (Tandem talk with moderated discussion)
· Coleen Vogel, Distinguished Professor in the Global Change Institute at the University of Witwatersrand
· Guido Caniglia, Scientific Director of the Konrad Lorenz Institute for Evolution and Cognition Research (KLI)
• Pius Krütli, Co-Director, TdLab ETH Zürich
KN-7: TD as collective - 3b. (Panel discussion) - followed by official closing
• Julie Thompson Klein, Emeritus Professor, Wayne State University, US and ETH Zürich, Switzerland.
• Benjamín Suárez, Director, Laboratorio de Toxinas Marinas, Instituto de Ciencias Biomédicas (ICBM), Universidad de Chile
• Mandy Singer-Brodowski, UNESCO BNE-Programm, Institut Futur, Freie Universität Berlin, Germany
• Bianca Vienni Baptista, Senior Researcher, TdLab ETH Zürich
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Figure 2 key notes/panels at the ITD conference 2021

KN-1: TD and sustainable development - 1a. (Keynote talk)

Speaker

To enable the above activities online and to make the complex conference structure an experience for participants that allows and encourages interaction and networking, a latest generation of technical platform software had to be provided. The professional software Conftool was used for the submission of contributions with a subsequent review process, which was then imported into the conference environment of iStage (Figure 3). This was professionally managed and the various Zoom sessions were set up and administered from here.

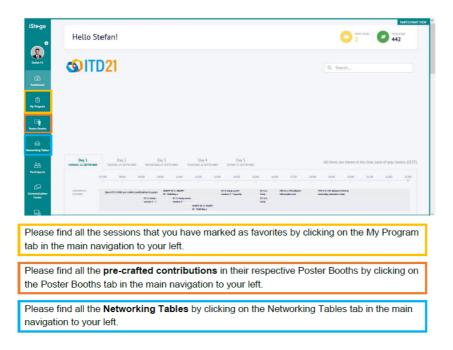


Figure 3 the commercial software iStage was used as online plattform

In parallel to the formal elements, we as well offered informal exchange and networking during the conference. For instance, we offered so called "Global Aperos" (Figure 4) to discuss in small groups on the question "How can we better build on plurality and difference in language in td events?".

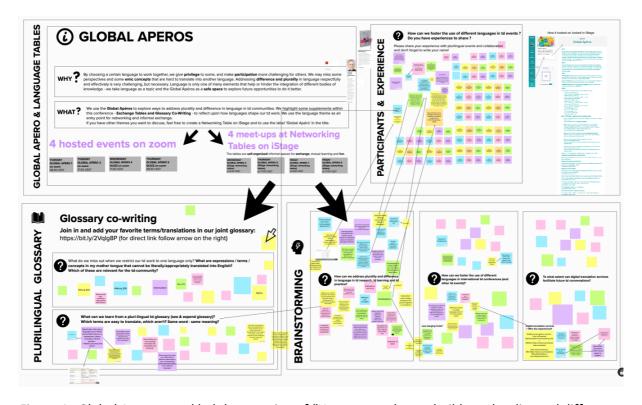


Figure 4 «Global Aperos» tackled the question of "How can we better build on plurality and difference in language in td events?"

A second special feature of the ITD 2021 were three auxiliary events. On one hand, the EU-funded project SHAPE-ID (Shaping interdisciplinary practices in Europe) held two special sessions on Building a culture of transdisciplinary research in Europe. This event aimed at showcasting impactful transdisciplinary research projects and exploring how best practice can be encouraged by European policymakers and funders.

The second side event was organised by a group of doctoral students from the TdLab (ETH Zurich). It offered sessions tailored to support transdisciplinary early career researchers (ECR). ECRs explored the different understandings of td across sociocultural borders, exchanged experiences concerning capacity building for td, with an emphasis on how to network and publish in the field.

Finally, the ITD Conference hosted the first General Assembly of the Global Alliance for Inter- and Transdisciplinarity (ITD Alliance). The ITD Alliance builds on partnerships developed around the previous ITD conferences. It was initiated in 2017 and officially founded in 2019. It offers a home base for all institutions and individuals engaged in inter- and transdisciplinary research and education, aiming at strengthening and promoting the global capacity of collaborative modes of boundary-crossing research and practice. The ITD Alliance held a public information event about its goals and working groups and the official General Assembly, together with the elections for the Leadership Board.

Transdisciplinarity has gained increasing traction in the past few years contributing to address sustainability issues. It is currently promoted by many organisations and funding agencies. Our conference deepened the understanding about the challenges and benefits of td, for research and for society. We are convinced that providing platforms for sharing knowledge and experiences is essential for building stronger links within the transdisciplinary community, as well as for jointly exploring ideas for future research and necessary improvements on concept, methods and theories of transdisciplinarity.

OUTPUT

Just before the conference, we made available a more than 300 pages thick booklet with extensive information about the conference (https://akademien-schweiz.ch/de/current/events/itd-conference-2021/programme/). The Core Team also produced several concept papers, for the keynote selection, for the description of the design of the formats as well as for the guidance of contributors and participants (Figure 5). During the conference, many participants live tweeted with the hashtag #itdconf2021 (Figure 6).

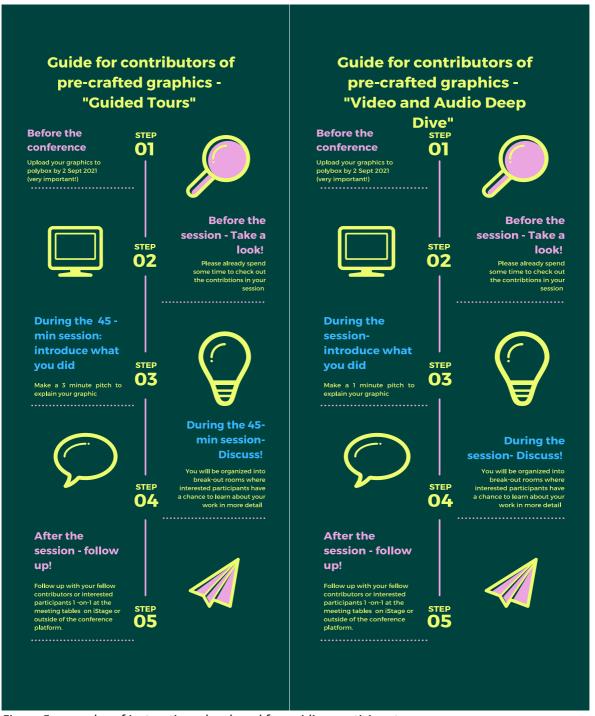


Figure 5 examples of instructions developed for guiding participants

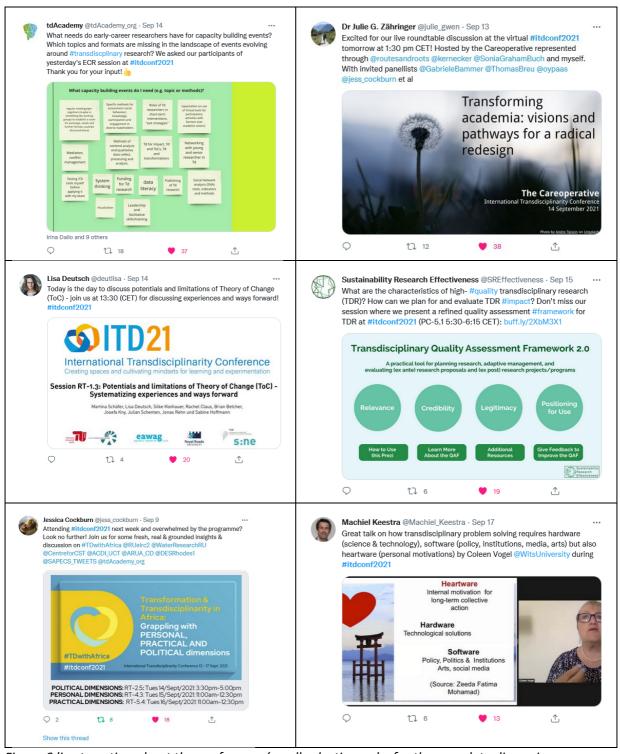


Figure 6 live tweeting about the conference (small selection only, for the complete discussions, see https://twitter.com/search?q=%23itdconf2021&src=typed query&f=live)

Right after the conference, a first publication in the scientific journal GAIA (gold open access) was published (Figure 7):

Vienni Baptista, B., Pearce, B. B., Stauffacher, M., Krütli, P., Paulsen, T., & Buser, T.
 (2021). Creating spaces and cultivating mindsets for learning and experimentation: International Transdisciplinarity Conference 2021. GAIA-Ecological Perspectives for Science and Society, 30(3), 209-211.



Figure 7 publication about the ITD conference in GAIA (see https://doi.org/10.14512/gaia.30.3.17)

PARTNERSHIP ASPECTS

The conference allowed, again, to illustrate the important role Switzerland played and still plays in the international td community. We could show that the concept of td already gained visibility in the mid-1990s in Switzerland within the Priority Programme Environment (SPPU), a 83 million Swiss franc research programme of more than 200 researchers. During the second phase of SPPU (1996 to 1999), the Swiss Academic Society for Environmental Research and Ecology (saguf) observed that scientists needed support to work more intensively with practitioners. Thus, a forum called Transdisciplinary research process was initiated to discuss, systematise, and find solutions to upcoming problems around td. One of the synthesis activities of SPPU was the organisation of the first International Transdisciplinarity Conference (ITD) in 2000 in Zurich, attended by nearly 800 participants from about 50 countries. As a follow-up to this conference, saguf launched the sagufnet, which was renamed as the Network for Transdisciplinary Research (td-net) and became part of the Swiss Academies of Arts and Sciences in 2003. The main goal of td-net is to advance transdisciplinary research and teaching in all thematic fields. As a cornerstone in its activities, td-net organises the ITD conferences jointly with partner institutions. These biannual conferences aim to build transdisciplinary communities, bringing together scholars and practitioners from different backgrounds to reflect on the state of td and to spark further development and cooperation. Twenty years have passed since the first edition of the ITD Conference. Meanwhile it has become an internationally known event that offers a vibrant forum for dialogue on td.

The conference was supported by a Strategic Board (Figure 8) and a Program Board (Figure 9), which both enabled a close collaboration with international experts, both within the td community but as well beyond. The feedback we got about our planning and implementation was very constructive, supportive and very encouraging. We felt fully recoginzed by these international experts as offering an excellent and inspiring online conference.

- Gabriele Bammer, Integration & Implementation Sciences (I2S)
- Matthias Barth, Robert-Bosch-Kolleg

 Erica Key, Belmont Forum

 Research Training Group "Processes of

 Ariane Koek, www.arianekoek.com Matthias Barth, Robert-Bosch-Kolleg Sustainability Transformation"
- Max Bergman, Swiss Academic Society for Environmental Research and Ecology
- · Nina Braun, Net4Society
- Marc Creus, Swiss Young Academy | Global Young Academy
- Peter Edwards, ETH Zürich Department of Environmental Systems Science
- Matthias Egger, Swiss National Science
- Steve M. Fiore, International Network for the Science of Team Science (INSciTS)
- Ruedi Füchslin, Zurich University for Applied Sciences
- Guillaume Habert, ETH Zürich Sustainable
 Bernhard Wehrli, ETH Zürich Department Construction
- Chi Huyen Truong, Intergovernmental knowledge and learning centre working on behalf of the people of the Hindu Kush Himalaya (ICIMOD)
- Jackie Kado, Network of African Science Academies (NASAC)

- Machiel Keestra, Association for Interdisciplinary Studies
- Chris Luebkeman, ETH Zürich
- Sheik Mbow, Future Africa Initiative
- Juliana Mercon, Universidad Veracruzana
- Oliver Parodi, Netzwerk Reallabore
- Katsia Paulavets, International Science
- Vivi Stavrou, International Science Council
- Danilo Streck, Unisinos University
- Josh Tewksbury, Future Earth
- Julie Thompson-Klein, Association for Interdisciplinary Studies
- Hilligje van't Land, International Associsation of Universities
 - · Lukas von Orelli, SwissFoundations
 - of Environmental Systems Sciences
- Anne Zimmermann, Copernicus Alliance
- Jakob Zinsstag, Network for Transdisciplinary Research | Swiss Tropical & Public Health Institute

Figure 8 The Strategic Board reviewed and revised our conference description and the call for contributions; helped in promoting the conference within their own networks and supported us in identifying fitting experts for key talks and plenary sessions

- Tateo Arimoto, National Graduate Institute for Policy Studies (GRIPS)
- Karoline Augenstein, Bergische Universität Wuppertal
- · Joerg Balsger, University of Geneva
- Richard Beecroft, KIT
- Monica Berger, Universidad del Valle de Guatemala
- Olivia Bina, University of Lisboa | INTREPID COST
- · Basil Bornemann, University of Basel
- Marcel Bursztyn, University of Brasila Center for Sustainable Development
- Guido Caniglia, KLI Centre of Advanced Studies in the Life and Sustainability Sciences
- · Frédéric Darbellay, University of Geneva
- · Lisa Deutsch, Eawag
- Lisa Diedrich, Swedish University of Agricultural Sciences (SLU)
- Mario Diethart, Copernicus Alliance
- Antonietta Di Giulio, University of Basel
- Jennifer Duyne Barenstein, ETH Zürich -CASE
- Olivier Ejderyan, ETH Zürich & University of Basel
- Dena Fam, University of Technology Sydney
- · Josefine Fokdal, University of Stuttgart
- Karen Fortuin, Wageningen University -Environmental Systems Analysis group
- Rachael Garrett, ETH Zürich Department of Environmental Systems Science
- Matthias Gross, Helmholtz-Centre for Environmental Research (UFZ)
- Ralph Hansmann, ETH Zürich | EPF Lausanne
- Niko Schäpke, University of Freiburg
- Jan Schmidt, University of Applied Science Darmstadt | Network for Transdisciplinary Research
- Flurina Schneider, Institute for Social-Ecological Research | Goethe University Frankfurt
- Iljana Schubert, University of Basel
- Giulia Sonetti, Politecnico di Torino | Transdisciplinarity for Urban Sustainability Transition
- Marco Sonnberger, University of Stuttgart
- Annika Sore, University of Basel
- Jack Spaapen, National Academies of Science, The Netherlands – SHAPE-ID partner

- · Harald Heinrichs, Leuphana University
- Andi Hess, Arizona State University | International Network for Science of Team Science (INSciTS)
- Cecilia Hidalgo, Universidad de Buenos Aires
- · Sabine Hoffmann, Eawag
- · Karri Holley, University of Alabama
- Daniel Inkoom, Kwame Nkrumah University of Science and Technology (KNUST)
- Christoph Küffer, Ostschweizer Fachhochschule
- Alexandra Lux, Institute for Social-Ecological Research (ISOE)
- · Catherine Lyall, University of Edinburgh
- Clemens Mader, University of Zürich | FMPA
- Ingrid Mulà, Copernicus Alliance | University of Girona
- · Jens Newig, Leuphana University
- · Nelly Niwa, University of Lausanne
- Paulo Nuno Vicente, Universidade NOVA de Lisboa | iNOVA Media Lab
- Michael O'Rourke, Michigan State University
- · Zarina Patel, University of Cape Town
- Kristina Pelikan, Swiss Tropical and Public Health Institute (TPH) Basel
- Christian Pohl, ETH Zürich USYS TdLab | Network for Transdisciplinary Research (tdnet)
- Ortwin Renn, Institute for Advanced Sustainability Studies (IASS)
- · Adina Rom, ETH4D
- Marlyne Sahakian, University of Geneva
- Martina Schäfer, TU Berlin Centre for Technology and Society (ZTG)
- Silvia Tobias, Swiss Federal Institute for Forest, Snow and Landscape Research (WSL)
- John van Breda, Stellenbosch University -Centre for Complex Systems in Transition (CST)
- Marta Varanda, Universidade de Lisboa | INTREPID COST
- · Ulli Vilsmaier, Leuphana University
- Benno Volk, ETH Zürich Educational Development and Technology (LED)
- Timo von Wirth, DRIFT
- Matthias Wanner, Bergische Universität Wuppertal

Figure 9 The Program Board reviewed the submitted abstracts and thus fostered the high quality of the contributions. Furthermore, the program board helped in promoting the conference within their own networks

The ITD 2021 was enthusiastically complemented for all its features and especially the lively and engaged online format offered (Figure 8). All this together was strongly appreciated by the international community and helped to raise Switzerland's profile in the td community once again.

- "I thank you and colleagues for a transforming experience at the conference"
- "Thank you for the organization of the ITD Conference. It was a very nice space of learning and exchange. And the TD community is really cool"
- "Vielen Dank und beste Grüße, gratuliere zu dem tollen Programm"
- "Thank you so much for what is shaping to be a great conference"
- "Thank you so much for this outstanding event"
- "You have put together a magnificent platform full of amazing resources"
- "Herzlichen Dank für die Organisation dieser tollen Tagung! Bisher war es trotz den Online Formats, das ich anfangs fürchtete sehr bereichernd und inspirierend"
- "I would like to pass on my sincere thanks to the whole team for staging such a wonderful conference for us. The
 organisation and online platform worked flawlessly"
- "Thanks for your fantastic work to make ITD21 possible! I enjoyed wandering around in the virtual space and found
 many exciting contributions in teaching, research and outreach in the poster booths"
- "This was a great conference. I had a lot of fun, heard stimulating talks and had a lot of interesting discussions"
- "What a great & inclusive conference #itdconf2021! So many brilliant sessions, workshops, plenary sessions, keynotes, networking opportunities etc. I met so many fantastic, friendly, open people & got so much fruit to think about."
- "Attended #itdconf2021 this week. Still impressed and inspired by the variety of topics and approaches as well as the
 diversity of this tightly knit yet very open community."
- "BIG THANK to the organizers of #itdconf2021!
- Wonderful insights! (and still a lot for me to catch up in replay in my (japanese) time zone)"
- "The #itdconf2021 is already the 4th #ITD I'm attending and I've never seen so much content on #language,
 #communication, #multilingualism, #terminology. I am truly delighted!"

Figure 10 Feedbacks by participants during/after the conference