

Call for Abstracts

Participatory technology assessment and the framing challenge

TATuP Special topic, issue 35/3 (2026)

Submit your abstract by 19 January 2026

Background: Societal engagement, i.e. the inclusion of stakeholders and various publics in debating, assessing and shaping technological developments, has become an integral part of the repertoire of technology assessment and beyond in the governance of science and technology (e.g. in the context of RRI) (Bauer et al. 2021). Over the past decades, participation and deliberation have been tested and advanced in a wide range of technology areas, from planetary defense (Tomblin et al. 2017) and genetic engineering (Barlevy et al. 2024) to autonomous driving (Chng et al. 2021), as well as to broader societal challenges such as climate change (Nelson et al. 2021). These practical experiences have been accompanied by conceptual and procedural reflection, leading to a continuous widening of the design options and methods for participatory TA, or, more generally, societal engagement in science, technology and innovation (STI).

Participation and deliberation have been promoted to ensure that public concerns and ethical considerations are addressed, that technological innovations are aligned with societal values and expectations, and ultimately to facilitate democratic decision-making on STI (Kaplan et al. 2021). Integrating the perspectives of a broader range of actors into the assessment process is expected to counteract the narrowing dynamics of (traditional) expert analysis, with the aim of opening up anticipatory 'closure' inertias (Urueña et al. 2021) in terms of expectations, perspectives, concerns, hopes, fears, and visions (Stirling 2007).

However, contrary to the hopes and expectations for opening up technology assessment and governance, an emerging body of literature has drawn attention to the reinforcement of expert discourses and dominant political imaginaries in dialogue processes and the marginalization of dissenting or alternative perspectives (Stilgoe et al. 2013; Kerr et al. 2007; Bogner 2012; Bauer and Bogner 2020). As a result, the critical role of framing in participatory processes has gained increasing recognition among scholars and practitioners (Chong and Druckman 2007; Nelson et al. 2024). Framing is the (selective) structuring of issues, problems and solutions. This includes how problems are presented, what knowledge is considered relevant and authoritative, and which actors are seen as legitimate to participate. Thus, frames provide certain modes of perception and interpretation that influence which aspects of technology and its discontents are emphasized or marginalized. Critical reflection of the framing of technological issues and framing effects in participatory processes, entails, inter alia, problematizing the authority of experts and organizers in defining and structuring issues and discussions, and, more generally, the persisting privileging of scientific expertise, both technical and social, over other perspectives. By relying on dominant expert framing to structure a debate, participatory processes run the risk of reproducing established frames and narratives, and focusing on

acceptance of technologically derived solutions rather than fostering genuine debates about the social desirability of alternate possibilities and futures (Nelson et al. 2024). When certain viewpoints are systematically excluded, participation and deliberation may fail to open up debates, ultimately undermining the quality, credibility, and relevance of, and trust in, participatory mechanisms (Strassheim 2015). On the other side, opening up debates might also be viewed critically when the democratic and epistemic quality of deliberation is challenged (e.g. when anti-science or racist views are presented as legitimate counter-views), or when scenarios and options considered are not scientifically credible or technologically feasible.

Research interest: The proposed Special topic aims to foster an interdisciplinary and transdisciplinary dialogue on the framing challenge in participation and deliberation and related conceptual, design and methodological advances to counteract narrowing framing effects. How can the full potential of participatory TA to broaden and deepen societal perspectives be realized by paying closer attention to the design, procedural and methodological choices that affect how technological issues are structured and debated? In doing so, the Special topic aims to advance reflexive participatory practices in technology assessment and, more generally, societal engagement with science and technology in order to contribute to just transitions and inclusive and equitable technology development and governance.

The Special topic seeks contributions from different disciplinary perspectives (Technology Assessment, Science and Technology Studies, political science, communication studies, sociology, participatory action research) and contexts (technology assessment (also beyond pTA), RRI, democratic reform, equitable development and beyond) that address the challenge of framing in participatory processes and explore related innovations in participation and deliberation. Contributions may include, but are not limited to, the following aspects and topics:

A) Conceptual frameworks for understanding and addressing framing in participatory processes.

Contributions from a conceptual point of view could:

- Provide conceptual explorations of framing in participation and discuss the ordering and framing power of participatory mechanisms and methods from various disciplinary perspectives. This might also include to clarify the relation between frames to other concepts such as narratives, counter-narratives, and belief systems in scholarly debates on participation and engagement.
- Develop and discuss analytical frameworks and tools for identifying and mapping the variety of frames that become relevant in technology debates. Another question would be how to capture and explain changes in dominant frames over time or cultures.
- Focus on the further development of the theory of TA and consider the framing challenge also beyond participation. What role does framing play in conceptual and methodological debates around expert-TA, parliamentary TA, constructive TA or related processes such as foresight and horizon scanning?

B) Empirical research and discussion on framing challenges and effects in participatory processes.

We encourage contributions that provide empirical examples of and insights into the framing challenge in participatory processes, for example through case studies, covering, inter alia:

- The exploration of the effects of framing on outcomes of deliberation and participation as well as on the credibility of and trust in participatory processes.
- Comparative analyses of framing dynamics and effects across different technological domains (e.g., biotechnology, information technology, artificial intelligence) or different

participatory methods and tools (such as focus groups, citizen panels, scenario workshops). Contributions could also investigate the role of cultural, social, historical, and institutional factors related to the framing challenge.

C) Innovations in engagement formats: We particularly invite contributions that present and discuss innovative engagement formats (both on a conceptual and empirical basis), including new procedural and methodological approaches to address the framing challenge. Such contributions might:

- Reflect on (new) methods, tools and techniques for facilitating dialogue and negotiation between stakeholders with divergent frames and for dealing with framing conflicts.
- Report and reflect on new collaborations, for example with the arts (Fraaije et al. 2022), for participatory processes and how such collaborations might open up framing. How can artistic tools, such as film and drama, provide opportunities to encourage creativity and unconventional thinking or more emotional views?
- Discuss the explicit inclusion of procedures and mechanisms of frame reflection in participatory processes to make the different framings subject of the debate (Betten et al. 2017).
- Explore the potential of digital and computational methods (e.g., social media analysis, sentiment analysis) to capture and analyze framing dynamics.
- Discuss the challenges and limits of opening up framing and participation. In how far might alternative framings or counter-narratives hinder constructive debate? How can participatory processes remain open without legitimizing harmful or anti-democratic perspectives? What criteria should guide the reflection on frames to safeguard deliberative integrity?

Special topic guest editors

Anja Bauer, Assoc.-Prof. Dr., Department of Society, Knowledge and Politics, University of Klagenfurt, Klagenfurt, AT, anja.bauer@aau.at, <https://orcid.org/0000-0003-2197-1925>

Mahmud Farooque, Prof. Dr., Consortium for Science, Policy & Outcomes, Arizona State University, Washington D.C., US, mahmud.farooque@asu.edu, <https://orcid.org/0000-0002-1694-5581>

How to submit

- We recommend the submission of manuscripts in English (US), but German versions are also welcome.
- Please submit your abstract by **19 January 2026** at the latest via e-mail to redaktion@tatup.de.
- Length of the abstract: max. 1.5 pages.
- The editorial office will contact the author submitting the abstract.
- Please state full names, e-mail addresses, and institutional affiliations of all co-authors.

Editorial process outline

19 January 2026	Submit your abstract
February 2026	Notification of invitation or rejection to submit research articles
April 2026	Submit your research articles, followed by peer review
June 2026	Feedback from the reviewers, followed by revision by the authors

July 2026	Submission of the revised research articles
August 2026	Further revisions, if necessary
October 2026	Editorial deadline
December 2026	Publication (print and online)

References

- Barlevy, Dorit et al. (2024): Governing with public engagement: an anticipatory approach to human genome editing. In: *Science and Public Policy* 51 (4), pp. 680–691.
<https://doi.org/10.1093/scipol/scae010>
- Bauer, Anja; Bogner, Alexander (2020): Let's (not) talk about synthetic biology: Framing an emerging technology in public and stakeholder dialogues. In: *Public Understanding of Science* 29 (5), pp. 492–507. <https://doi.org/10.1177/0963662520907255>
- Bauer, Anja; Bogner, Alexander; Fuchs, Daniela (2021): Rethinking societal engagement under the heading of Responsible Research and Innovation: (novel) requirements and challenges. In: *Journal of Responsible Innovation*, pp. 1–22. <https://doi.org/10.1080/23299460.2021.1909812>
- Betten, Afke; Broerse, Jacqueline; Kupper, Frank (2017): Dynamics of problem setting and framing in citizen discussions on synthetic biology. In: *Public Understanding of Science* 27 (3), pp. 294–309. <https://doi.org/10.1177/0963662517712207>
- Bogner, Alexander (2012): The Paradox of Participation Experiments. In: *Science, Technology, & Human Values* 37 (5), pp. 506–527. <https://doi.org/10.1177/0162243911430398>
- Chng, Samuel; Kong, Penny; Lim, Pei; Cornet, Henriette; Cheah, Lynette (2021): Engaging citizens in driverless mobility: Insights from a global dialogue for research, design and policy. In: *Transportation Research Interdisciplinary Perspectives* 11, p. 100443.
<https://doi.org/10.1016/j.trip.2021.100443>
- Chong, Dennis; Druckman, James (2007): Framing Theory. In: *Annual Review of Political Science* 10 (1), pp. 103–126. <https://doi.org/10.1146/annurev.polisci.10.072805.103054>
- Fraaije, Aafke; van der Meij, Marjoleine; Kupper, Frank; Broerse, Jacqueline (2022): Art for public engagement on emerging and controversial technologies: A literature review. In: *Public understanding of science (Bristol, England)* 31 (6), pp. 694–710.
<https://doi.org/10.1177/09636625221093213>
- Kaplan, Leah; Farooque, Mahmud; Sarewitz, Daniel; Tomblin, David (2021): Designing Participatory Technology Assessments: A Reflexive Method for Advancing the Public Role in Science Policy Decision-making. In: *Technological Forecasting and Social Change* 171, p. 120974.
<https://doi.org/10.1016/j.techfore.2021.120974>
- Kerr, Anne; Cunningham-Burley, Sarah; Tutton, Richard (2007): Shifting subject positions: Experts and lay people in public dialogue. In: *Social Studies of Science* 37 (3), pp. 385–411.
<https://doi.org/10.1177/0306312706068492>
- Nelson, John; Kaplan, Leah; Tomblin, David (2021): Assessing solar geoengineering research funders: Insights from two US public deliberations. In: *The Anthropocene Review* 8 (1), pp. 37–55.
<https://doi.org/10.1177/2053019620964845>
- Nelson, John; Tomblin, David; Barbera, Avery; Smallwood, Melissa (2024): The divide so wide: Public perspectives on the role of human genome editing in the US healthcare system. In: *Public understanding of science (Bristol, England)* 33 (2), pp. 189–209.
<https://doi.org/10.1177/09636625231189955>

- Stilgoe, Jack; Owen, Richard; Macnaghten, Phil (2013): Developing a framework for responsible innovation. In: *Research Policy* 42 (9), pp. 1568–1580.
<https://doi.org/10.1016/j.respol.2013.05.008>
- Stirling, Andy (2007): “Opening Up” and “Closing Down”. In: *Science, Technology, & Human Values* 33 (2), pp. 262–294. <https://doi.org/10.1177/0162243907311265>
- Strassheim, Holger (2015): Politics and policy expertise: towards a political epistemology. In: Frank Fischer (ed.): *Handbook of critical policy studies*. Cheltenham: Edward Elgar Pub. Ltd, pp. 319–340. <https://doi.org/10.4337/9781783472352.00026>
- Tomblin, David et al. (2017): Integrating Public Deliberation into Engineering Systems: Participatory Technology Assessment of NASA’s Asteroid Redirect Mission. In: *Astropolitics* 15 (2), pp. 141–166. <https://doi.org/10.1080/14777622.2017.1340823>
- Urueña, Sergio; Rodríguez, Hannot; Ibarra, Andoni (2021): Foresight and responsible innovation: Openness and closure in anticipatory heuristics. In: *Futures* 134, p. 102852.
<https://doi.org/10.1016/j.futures.2021.102852>