EASST
Review

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EDITORIAL

EASST Review editorial

Dear all,

This issue of the EASST Review is dedicated to Research Cultures. This is an important topic to discuss together in light of recent events around #MeTooSTS and broader (inter)national attention for research culture and its (e)valuation, e.g. the Wellcome Trust work on research culture. This aligns with transformations towards responsible metrics and evaluation, including recognition and rewards and the recently established European Coalition for Advancing Research Assessment (CoARA). As we all know, the terms and debates look different across countries, but from an STS perspective it is important to note an increase in reflexivity about the importance of good research environments, not only for good research and epistemic diversity but also for the wellbeing of researchers. As this is a core issue of STS, many of us are studying transformations in research cultures, while also actively working to transform policies and change practice. Often this concerns developments outside of our own field, but of course they are never unrelated to our own experience and practice. Therefore, an important question concerns the relationship between these broader debates and our own field. How is STS as a community engaging with transformations of research cultures?

From the EASST meeting in Madrid we vividly remember discussions on the role we as a community play and can play in debates and actions regarding climate and biodiversity crises, also in terms of reducing our own footprint through transformation of future conferences. This Autumn discussions on twitter and beyond, addressed issues of inequality, power abuse and sexual harassment, and how this also plays out in our own STS community. While we might hope we are immune to this, as we definitely should know better, it would be naïve to think we are an exception just because we study research cultures and their various inter-related problems. Perhaps we can be an exception though, as a community that acknowledges that also our research cultures are in need of improvement, being reflexive about our own daily practices and the ways in which we discuss these issues across our community. This is easier said than done, but we have seen various initiatives developing and we are devoted to keep up debates and especially focus on ways to change practice for the better where possible.

EASST has already taken various steps to engage with these topics of concern, including the discussion on the EASST ethics policy, and broader discussions on the ways in which we can shape future conferences (see *News from the council* for more information). Moreover, we want to provide a space to address these issues in the *EASST Review*, in order to stimulate constructive debate and share initiatives and experiences that aim to improve research cultures, including our own. In this current issue's *STS Live* we offer contributions from various authors, ranging

from activism in STS and reflections on #MeTooSTS and #WeDoSTS to thoughts on needed transformations in academic and publishing cultures in STS and beyond. We want to thank all the authors who took the time and effort to share their thoughts with us and we invite everyone to add to the next issues or contribute in other ways to improve our STS community. We strongly suggest that a debate on research cultures should be an intergenerational debate and the EASST Review has the potential to be a key space to keep these conversation open, since it is one of the main sites for conversation about STS by STS. Together we can sustain EASST and STS as an open community that welcomes and treats all with respect and learns from each other's experiences.

One person, who was always open to chat to researchers from all walks of academia was Loet Leydesdorff. Since he sadly passed away in March, we pay tribute to him and his work in this issue through the people he supported and inspired. He connected various scholarly communities and found ways to bridge different ways of thinking. As you will read, chocolate was an essential part of his exchanges, and this might be something we can take forward, to remember him amidst all of his many writings.

Finally, some news from the editorial team. We are very pleased to introduce Jose A. Cañada from the University of Exeter as our new member. Jose has engaged with STS scholarship since their master's research, back in 2009, and worked on topics as diverse as water infrastructures, pandemic preparedness, antimicrobial resistance and biobanks. Across these topics, there is an underlying interest on more-than-human relations, especially in terms of health, care and ethics, a topic they now continues to explore in the study of marine ecosystems. An active member of the STS community since 2013, they are really looking forward to join the *EASST Review* team and contribute to create a space to encourage discussions among community members.

We are now looking for two more members to join our team in Autumn, so if you are interested, please read the call at the end of this issue and let us know. The *EASST Review* is an important part of the STS publication infrastructure, and it provides an opportunity to take active part in EASST and the wider STS community, putting important topics on the agenda and shaping debates.

We are looking forward to hear from you and the editorial team can be reached at: review@easst.net

Niki, Sarah, Jose and James

In Memoriam

FOR LOET LEYDESDORFF

Sally Wyatt

Written version of text spoken on the occasion of Loet Leydesdorff's funeral, 20 March 2023, Amsterdam

Sally Wyatt, Maastricht University

Ik ben Sally Wyatt. Ik heb met Loet bij de UvA gewerkt begin deze eeuw. Inmiddels spraken we vaak Nederlands, maar voor deze gelegenheid gaat Engels mij beter af.[1]

Dear Margaret, Loet's family, friends and colleagues,

Loet was my colleague and friend, and I will miss him. In 1999, I moved to Amsterdam, very much a stranger in a strange land. Loet had met me only once or twice before then [at EASST conferences], but nonetheless he made an effort to invite me for coffee and to *Wetenschapsdynamica*[2] events. I am confident he had papers to write and data to analyse, but he still thought about how he could make me feel welcome. I will always be grateful for that.

A year later, after the UvA's (University of Amsterdam) unusual decision to abolish its renowned interdisciplinary groups, including *Wetenschapsdynamica*, we both found ourselves in *Communicatiewetenschap*/ASCoR (Communication Studies/ Amsterdam School of Communictions Research). There we were two STS strangers together in another strange land. There were three great things about having an office close to Loet.

First: He always had chocolate. Sometimes one needs a piece of chocolate in the late afternoon and he would always share. I hope I replenished his chocolate supply from time to time.

Second: He was a world-class scientometrician, awarded the Derek de Solla Price Memorial Medal in 2003. Always useful to have one nearby. I currently have the pleasure of preparing the research evaluation for my faculty. I received some analyses from my university library last week. I am pretty sure one is wrong, but that's just an instinct. My first thought was to ask Loet to help me articulate the questions to take back to the library about how to interpret a particular visualisation (of links between our publications) and the CNCI 'category normalised citation impact'. This also prompted me to wonder if the UvA is ready for its drop in the world research rankings. Will they still count Loet's citations?[3]

Third: I always knew when he was there because I could hear him laugh. Loet had a very distinctive laugh, sometimes nervousness, but more often a sound of intellectual pleasure and excitement. I miss that laugh.

Loet studied chemistry, then philosophy and sociology at the UvA[4], and worked there throughout his career. When he retired, I was also asked to say a few words. Less challenging than today. On that occasion, I mentioned a mutual colleague who claimed that Loet could write faster than most of us could read. I also called for a 'Loet co-author support group'. With most co-authors, you do your bit, send it off to your fellow author, hope you won't hear anything for a while, and get on with other things. That is not how it worked with Loet. You would get a detailed revised manuscript back, usually within hours. If it was more than 24 hours, I'd start to

1 Translation: I am Sally Wyatt. I worked with Loet at the University of Amsterdam at the beginning of this century. In recent years, we usually spoke Dutch together, but for this occasion, English is easier for me.

2 Translation: Science Dynamics, STS department at the University of Amsterdam, closed in 2000.

3 Google Scholar indicates that there are more than 70,000 citations to Loet's work, one of the most cited Dutch scholars in the social sciences.

4 For further information about Loet's career and publications, see: https://www.leydesdorff.net/

worry if he was OK. My idea for this support group was that we could alert each other when we needed someone else to keep him busy. Today we need another kind of support, and it is wonderful to see so many people here.

I began by saying Loet was my friend. Friendship takes different forms. Loet was not someone I spent my youth with at wild parties nor in late-night political discussions. Nor was he someone I would ever go clothes shopping with. But we connected in other ways, and we took each other seriously. Sometimes very seriously. I once bumped into Loet in our mutual *Albert Heijn* (Dutch supermarket chain). He asked what I had been reading. I was thinking about my shopping list and what to make for dinner. What I had been reading was probably more important in the grand scheme of things.

Quite frankly, Loet was way smarter than I am. He did me the great kindness of assuming I understood what he was saying. Eventually I would get there, but maybe a while later. My role when we wrote together was to try to make sure other people could understand him as well.[5]

In some of the online comments about Loet that have appeared in the past week, and in the private messages I have received, people refer to him as a 'legend', an 'inspiration', a 'towering figure' but many also mention his kindness and generosity. These are Loet's very best qualities - making strangers feel welcome, sharing chocolate, and taking people seriously.

I drafted this on Friday afternoon while sitting in the garden of Café Merkelbach in Park Frankendael, not far from here (*De Nieuwe Ooster*, the cemetery where Loet is buried in Amsterdam), and about halfway between where we live. Loet and I would meet there some Friday afternoons to talk about what we were reading and writing, and more personal concerns. It was often the two of us, occasionally Margaret (Loet's wife) and Hans (my partner) joined us. For me, it is now a place to remember Loet and his kindness.

5 Heur, Bas van, Loet Leydesdorff, and Sally Wyatt. "'Turning to Ontology in STS? Turning to STS through 'Ontology'." *Social Studies of Science* 43, no. 3 (2013): 341–62.

Wyatt, Sally, Stasa Milojevic, Han Woo Park, and Loet Leydesdorff. "Intellectual and Practical Contributions of Scientometrics to STS." In *The Handbook of Science and Technology Studies, Fourth Edition*, edited by Ulrike Felt, Rayvon Fouché, Clark A. Miller, and Laurel Smith-Doerr, 4th ed., 87–112. Cambridge, MA: The MIT Press, 2017.

Wyatt, Sally, and Loet Leydesdorff. "Ontology in Science and Technology Studies." In *SAGE Research Methods Foundations*, edited by Paul Atkinson, Sara Delamont, Alexandru Cernat, Joseph W. Sakshaug, and Richard Williams. Thousand Oaks, CA: SAGE, 2019.

In Memoriam – Loet Leydesdorff

Koen Frenken

Many of us remember Loet as a great scholar in science and technology studies, having made so many important contributions to scientometrics, communication theory, and innovation studies. Loet collaborated with many all over the world, and I found it consolatory to read so many posts online by colleagues remembering Loet for his kindness, generosity and friendship.

Fewer people will have experienced Loet as a university teacher, and I have been among the lucky ones who have been his student. As a student frustrated with studying economics, I looked for inspiration outside my department attending philosophy courses. It was during a course on Philosophy of Science where I first met Loet, who introduced students in the sociology of scientific knowledge during the very last guest lecture. I knew right away that I wanted to learn more and registered for his elective class on the non-linear dynamics of science and technology (the exact title was longer and more precise). Discussing classics and recent empirical papers from a variety of traditions, Loet was able to provide us with a rich understanding of the history of thought in science and technology studies. He did not shy away from including classic texts that were only available in an original language (French and German), but did not care much that most students could not read such languages. I vividly remember his passionate engagement with students, always encouraging them to articulate they own thoughts and providing what we now may call a 'safe space' for students to participate.

During the writing of my Master thesis in economics at the end of 1995, Loet contacted me to apply as a PhD student at his department. As funds were limited, he helped me to apply for a European grant allowing me to spend two years in Grenoble with his collaborator Paolo Saviotti. Throughout the whole PhD trajectory, he has been very supportive even if my approach would gradually move away from his theoretical interests. From my side, I commented tirelessly on his draft papers which he would always send to me for comments, but I stopped doing that after a few years as his output continued to increase exponentially.

I was also impressed by all his entrepreneurial academic activities that I watched from close by. One highlight was the setting up of a new interdisciplinary Bachelor at the University of Amsterdam crossing the boundaries between natural and social sciences involving members from various faculties. Another achievement was the creation of a global network of researchers and professionals together with Henry Etzkowitz on the topic of university-industry-government relations. Loet was also successful in bringing together European colleagues in his beloved city of Amsterdam (canal trip and Indonesian food included) to set up new joint proposals for European grants. Indeed, working with Loet was experiencing 'Science in Action' first-hand, generously sharing his ideas, skills and tacit knowledge.

As I embarked on my career after having graduated in 2001 at the University of Amsterdam, I started working at other universities in The Netherlands. Gradually, our professional contacts became less frequent. At the same time, our friendship grew bigger and our conversations more personal. I will cherish all the conversations we had at his kitchen table or on my balcony. I will always remember him for his drive and humanity.

LOET LEYDESDORFF: MAGICIAN IN MANY DIMENSIONS

Paul Wouters

"Citation analysis has conquered the world of science policy analysis." This is the impressive opening sentence of "Dimensions of Citation Analysis" which Loet Leydesdorff wrote together with Olga Amsterdamska (Leydesdorff en Amsterdamska 1990). For me, this is one of the most important pieces of Loet's body of work. A draft of this article had put me on the track of studying the history of scientometrics under the guidance of Rob Hagendijk and Stuart Blume. The article deals with the controversies of the 1980s about the interpretation and use of citation analysis and the subsequent "call for a theory of citation". Loet and Olga argued that these controversies not only stem from different theoretical perspectives, but also from the relative lack of attention to the multi-dimensional nature of citation practices. They based this on a clever combination of quantitative and qualitative analysis of citation practices by members of a biochemistry research group, a survey of citing behaviour together with a detailed analysis of the texts of both citing and cited articles. Rereading this article now, with the knowledge of Loet's work evolved in the decades that came later, makes me realize that his approach (in combination with Olga's) has had a much deeper influence on my thinking about scientometrics and citation analysis than I realized at the time. Indeed, the intellectual core of my PhD thesis revolved around the problem of a robust theory of citation.

One of the unexpected bonuses of coming to work at the Department of Science Dynamics at the University of Amsterdam was ending up in a room next to Loet (together with Ad Prins). We could regularly hear the enthusiasm with which Loet shared his evolving ideas over the phone and in person. And sitting in the room next door made it much easier to bump into each other and recognize unexpected possibilities for collaboration and co-authoring. Loet certainly has proven to be one of the most inspiring and prolific co-authors of our field.

So it was that I experienced his enthusiasm in person while writing my first article with Loet. The study was on the Price Index, an exercise in auto-scientometricism. Loet was not only adept in complex selforganizational theories, but was also proficient in programming in dBase III. Together we sorted out a routine to find out whether or not the field of bibliometrics was a "hard science" according to its own bibliometric index for scientific "hardness" (often equated with objectivity). (Of course I hoped that it proved that bibliometrics was paradoxically a soft science.) On the university 286 computer, the set of programs we had concocted took an inordinate amount of time and even on my personal brand new 386 SX workstation at home, the analysis took days to complete. I fondly remember the tricks I learned from Loet about the correct way to get the data out of the Citation Index (it was not yet web based), clean it, and program the analysis. It gave me a boost to further develop my skills, although Loet did not share my eagerness to later shift to Perl and later again to Python. He thought (wisely perhaps) that Visual Basic should be enough to program conceptual puzzles about self-organization and dBase III was good enough for data analysis.

Not many people have been able to combine a fondness for technical data analysis with information theoretical approaches with reflexive sociology and philosophy. The wide range of sources that Loet was able to synthesize in his writing still baffles me. I once quipped that he could write faster than I could read, and if we require that reading involves understanding, this was not only a joke. For

example, I am now still reading his last book, since this synthesizes most of his work and it also makes clear that for Loet developing a social theory that enables measurement, puts communication (rather than people) central and takes into account the reflexive nature of communication about communication was the central goal. Putting this on the intellectual agenda the way he has done is already an impressive feat. Making it work like he did even more so.

For me, Loet was a true magician mixing theory, method, and data with an unbeatable sense for interesting questions.

Paul Wouters

Leiden, 31 May 2023

STS Live / Research Cultures

If not us, who? If not now, when? – stories & stances on STS and activism

Sarah Rose Bieszczad, Guus Dix, Jorrit Smit

Authors in alphabetical order.

This piece arose from the convergence of the three authors' experiences and desires to continue the debate around activism in STS, started at the 2022 EASST plenary.

It was the last day of the first post-covid EASST conference. We, as a community, had all already gotten used to the *non-place* of the IFEMA conference center disturbingly easy. The closing plenary circled back to the main topic of the meeting: *The futures and politics of STS in Europe*. As the PhD representative in the EASST council, I (Sarah Rose) focused my portion of the discussion on STS and activism. calling for more engagement and action—the larger debate of the plenary took up this topic. My call arose from an earlier discussion among junior STS scholars about their personal and academic worries in an era of multiple, intersecting crises. We (the authors) were pleasantly surprised by just how many STS scholars in attendance echoed our sentiments, demonstrating that many STSers desired a more active and even a *pro-active* STS that tackles climate change and other looming crises. Nevertheless, we also felt that the discussion quickly ended up around the nuances of the meanings of activism, STS and their (inter)relation. Although I (Sarah Rose) expressed, in my original call, my frustration about this exact tendency of our field to pick apart the details ad nauseum to the detriment of action, the discussion ended up precisely there. Why does our field seem to sometimes lose sight of the overarching purpose, oftentimes getting lost in the detail of the argument? Still this time this tendency did have one concrete effect: it moved a worried part of the STS community that feels we still are not doing enough to plea for more action.

Whatever your personal stance, the conversation on activism in our community warrants revitalizing. While scientists worldwide join the forefront of the climate movement under the heading of *Scientist Rebellion*, many STS scholars remain rather silent to the point of becoming invisible. Something odd seems to be occurring as our field is principally concerned with the techno-scientific constitution of our worlds in relations with colonialism, environmentalism, and gender inequality. Might there exist a rift between thought and action in STS? Does our ingrained epistemological constructivism stifle our desire to act upon knowledge that is worrying so much so that it outright terrifies us? Is our community self-image already so 'activistic' that we feel we do not have to become activists to change the world for the better?

This piece intends to pick up and further the conversation on STS and activism through a bricolage of historical browsing and possible stances. We attempt a first sketch of historical stances on activism in STS through reflections on such work in the STS handbooks. We hope this piece inspires you to also direct your energy towards keeping the debate alive, share your own doubts, feelings and strategies or – most importantly – engage in activism in a way that suits you.

BROWSING FOR ACTIVISM IN THE HISTORY OF STS

Origin stories of STS: uncritical versus critical roots

Multiple 'origin stories' of STS exist. In one such story, the field of STS was undeniably *political* such that it served the government – but certainly not *activist*. Echoing the French science policy sage Jean-Jacques Salomon, Ina Spiegel-Rösing (1977: 7-8) located the emerging reflections on science in war and the intense role of science and technology therein. As a consequence, she observed in the first handbook, the study of science, technology and society (SSTS) were typically justified 'in view of dominant political goals'. This was even more visible in 'socialist' than in 'bourgeois' science studies (ibid 14). Whereas in the communist countries in 'the East' the relation of science to fundamental ideological problems was a driving force, in capitalist economies of 'the West' political questions like 'what science is for' and 'what society we want' were 'curiously ignored for too long' (ibid 26).

This origin story was also part of the opening chapter of the first STS handbook, where David Edge (1995, 6-8) identified the attempt to underpin rational policy decisions as the 'uncritical' root of STS, which stood in opposition to a more critical and radical one. The latter consisted of attempts to describe and understand the social nature of scientific knowledge for the reformist aim of democratizing science and technology. This is where activism came into play. When the problem of science policy arose in response to the untenability of ongoing linear growth of the technoscientific apparatus, alongside it the problem of democratization emerged in response to the social movements of the 1960s. Still, for one to see the activist roots of STS one only had to look at the Vietnam protests, feminism, environmentalism and the civil rights movement (10-11).

Development of STS in the early nineties: activism versus academicism

In published exchanges on STS and activism in the early 1990s we see a second fault line in the debate, this time between 'activist' and 'scholarly' STS. One PhD student, Franz Foltz, argued that 'most younger scholars enter the field of STS studies because they see science and technology as problematic in society, and seek intellectual understandings that can assist them in meliorating the problems' (Waks, 1993: 400). Whether younger scholars could find what they sought after was a matter of some contention. At the time, Juan Ilerbaig and Steven Fuller were engaged in 'a highly visible exchange of views' on the relationship between STS scholarship and STS activism. In a session at the Technological Literacy Conference, a large audience engaged in a 'spirited discussion' which 'demonstrated that scholarly and activist STS communities now seek a more productive working relationship' (Waks, 1993: 399). In searching for such a working relationship, people basically agreed that there were two relatively separate STS communities with divergent understandings of the problem.

Within the 'scholarly' STS culture, people 'concentrated on the problematic nature of *scientific and technical knowledge itself*, concluding that these are human discourses, which like all others are shaped by cultural values, group negotiations, and consensus processes, and very "evitable" choices' (Waks, 1993: 401) Coinciding with this scholarly definition of the problem were particular aims, namely to understand 'the growth of knowledge, "deconstructing" science and technology and their privileged status as knowledge in both the university and among consumers of knowledge (e.g., government agencies)' (ibid). Within the 'activist' culture, on the contrary, people primarily focused on 'the social, cultural, and political effects of science and technology – such things as environmental degradation, erosion of cultural diversity and vernacular (everyday) knowledge' (ibid). The root problem was the 'social maximization of science and technology' where 'science drives out other forms of thinking, and technology drives out other ways of living'. That problem definition led the activists to pursue 'meliorist aims' such as 'cleaning up the environment, decentralizing power, restoring cultural diversity' (ibid).

1 https://www.umasspress.com/
activist-studies-of-science-and-
technology/

STS coming of age in the 21st century: blurring and commemorating activism

The word 'activism' is largely absent in the first two handbooks but very visible in the third handbook published in 2008. Still, the way in which activism was discussed became a bit blurrier as well. To start with, the editors acknowledged that STS is no longer defined in a 'narrowly academic' way but rather lists activists as a group we engage with among other groups (scientists, doctors, politicians, users) and no longer as an important strand or root of STS itself (Hackett et al, 2008, [1]). The editors, in addition, shift from different practices of STS work towards the academic and political valuations of such practices. They note that many people put effort in striking a balance between achieving 'academic respectability and institutionalization' and achieving 'change in the service of justice, equity and freedom' (Ibid). Where overemphasis on the first might lead to 'irrelevance', the latter risks 'loss of prestige and resources'. Finally, the distinction between the two is problematized. Sergio Sismondo (2008), for one, rejects the distinction between the theoretical or academic 'high church STS' and the activist and engaged 'low church STS' that Steve Fuller made before. The sharp distinction between 'high' and 'low', Sismondo argues, leads us to overlook the 'constructivist' bridges that exist in between them.

Once the relations between activist and academic STS become blurrier and hybrid in the present, it is but a small step to start commemorating clear-cut activism as something that was once there. In a special issue of *Science as Culture* – "From Radical Science to STS"– this seems to be the case. In the introduction, Karin Patzke and the late Peter J. Taylor (2021) start from stories of many core contributors to the field of STS with roots in 'counter-cultural or radical activities from the late 1960s, '70s and '80s'. These activist roots in 'radical science' led to the scholarly field of 'STS' where activist concerns were transformed into academic interests. The fourth handbook is a case in point; not only did it show some skillful meta-reflexivity by introducing itself through recapitulations of previous handbooks, the chapter on STS and social movements demonstrated the academization of activist spirits: at first, the activist origins of STS are identified, but then STS's contribution is presented proudly in terms of the further *theorization* of social movements. And for the future, Breyman et al. (2017) allocate responsibility for the (re)orientation of STS not to the scholarly community but to new social movements, once again.

TAKING A STANCE

Where does browsing the history of STS leave us? Two preliminary observations. First, the turn to 'hybridity' is a classical STS reflex whenever a sharp line is drawn between two things. This can be a welcome corrective in some instances, nevertheless there is still a catch: it takes the bite out of the debate. The blurring we discern seems to turn the idea of what counts as activism in STS into a more academic one, instead of activist (Martin, 1993). The incorporation of the activist impetus into the field has been subsumed under more traditional academic structures of recognition that safeguards the theoretical identity of 'real' STS.

In a commemorative mode, second, we run the risk of presenting activism as something that was inevitably lost as STS became institutionalized. This mode leaves out (young) people wanting who seek to achieve change right here, right now. But historical storytelling does not have to be that way; it can perform intergenerational work when we share and transmit energy and strategy between generations. We would like to use the occasion to reflect on a future past. How do we want the topic of activism to end up in the fifth and sixth handbooks of STS? We tease out four stances for future debate and action here that are not mutually exclusive.

The first stance: STS on activism

The first stance is closest to the academic definition of the field: using STS concepts, theories, and methods to study the place of activism in the science system. Many examples date back to the 1990s, like Rabino's (1991) study of the 'impact of activist pressures on recombinant DNA research', the study of animal rights activists by Jamison and Lunch (1992) or Epstein's (1995, 408) study of the mechanisms and tactics by which 'U.S. AIDS treatment activists have constituted themselves as credible participants in the process of [biomedical] knowledge construction'. All in all, STS scholars on activism do not have to leave the safe observer's stance. They join the long queue of requests that present-day social movements like Extinction Rebellion get to participate in interviews, focus groups or surveys. What if all that productive academic labor would be geared towards a different, more actionable goal?

The second stance: STS for activism

STS for activism still stays relatively close to an academic mindset but with the explicit purpose to support activism. The University of Massachusetts Press, for instance, has a series on Activist Studies of Science and Technology, which 'will publish accessible, engaging books on science and technology in support of movements for justice and sustainability around the world'. Other studies are valuable to activists because they offer insight into academic-corporate ties, e.g. in biotechnology (Krimsky, Ennis and Weissman, 1991) or medical sciences (Sismondo, 2009). This can aid activists in providing argumentative support for their cause or even in selecting specific targets.

One step further, STS scholars could speed up this process by reaching out to social movements to collect questions and problems relevant for them, and help with data collection and curation. Martin's (1996) work with Australian civil disobedience groups and questions around the effectiveness of non-violent protest is an older example while End Fossil Occupy's recent call to cut ties with the fossil industry a more recent one. This has already led some Dutch universities to pose restrictions on future partnerships (Cohen, 2023). In the process of protesting, however, it proved difficult to answer basic questions about the relations between specific universities and the fossil industry. Apparently, no (STS) researcher has bothered to dive into it. It is telling that two academics left academia to address this question and map fossil ties in the Netherlands (https://mappingfossilties.org/). Beyond this basic level of transparency, the question how these ties matter to knowledge production is a vintage STS one. This has moved one of us (Jorrit), to reorient a project on responsible innovation in chemistry to questions and data about the ties between industry and university that are also relevant for activists and journalists. Although much research funding in STS has been tied to successive hypes – from GMO and Nanotechnology to AI – basic questions about dominant areas like petrochemistry remain understudied, so that in a way we produce more ignorance than knowledge (Pinto, 2017).

The third stance: STS as activism

The third stance could be called 'STS as activism' or 'activist STS'. It is not uncommon for theoretically inclined scholars to claim that description is intervention, and thus that STS research is inherently political (Munk and Abrahamsson, 2012). Others have taken up this idea by explicitly aiming to intervene in the practices and communities that they study (Zuiderent-Jerak and Jensen, 2007). Accepting an interventionist stance, however, is not necessarily the same as accepting an activist stance as some explicitly argue against using interventions in a strategic way to change the practices in question (Zuiderent-Jerak, 2016). Beyond research, the field has interventionist roots in pedagogical practices too. Here, the main idea is that STS teaching should be less (or at least not exclusively) concerned with the

reproduction of the field by training a new generation of scholars than with the training of professionals and practitioners – engineers, life scientists and doctors – that can benefit from our expertise. Such interventionist pedagogies are still very much part of our self-image and conversation (https://stsinfrastructures. org/content/sts-critical-pedagogy). Although we could argue that, even in a field as reflexive as STS with such radical pedagogical roots, research output might have gained a higher value than transformative 'activist' teaching.

The fourth stance: STS and activism

From an activist's standpoint you might also ask: why bother about the 'special' relationship between STS and activism? Scientist Rebellion, for instance, consists of marine scientists, environmental microbiologists, philosophers, economists, glaciologists and many others. As far as we are aware, there are no debates on the relationship of these fields to activism. Why would STS be so unique that it merits a separate discussion? And isn't it a typical reflex of the professional-managerial class anyway to think that knowledge is going to make much of a difference here (Huber, 2022)? If you need a reason to engage in activism, don't look at the field but at the dire situation we find ourselves in today. When I (Guus) joined Extinction Rebellion three years ago, I was looking for other privileged academics like myself to join mass civil disobedience actions and support the movement from within. Peaceful bodily resistance seemed – and seems – a more adequate strategy to me than intellectual debate to enforce the radical social and technological change that is needed now to stay below 1.5 degrees of global warming.

Moving forward

If not us, who? If not now, when? We feel that there is little time to lose in addressing the existential crisis of climate change and its intricate connections to injustices bound up with colonialism, capitalism and patriarchy. And we feel that there are multiple stances for the (European) STS community to take in engaging in activism or in helping others do so. Of course, there are more stances imaginable. In their handbook entry on STS and social movements, Breyman et al. (2017) even identify the infamous Luddites as a historical precursor to the techno-critical attitude that we now self-identify with. From there it's a small step to Andreas Malm's arguments in *How to blow up a pipeline* (2021). Are Malm's 'infrastructural interventions' an imaginable next step for a rekindled activist STS? For now, we hope to have stirred thought and feelings in individual readers as well as that debates in local communities may follow.

We want to invite you to contribute to the next issue of the EASST Review – with your (alternative) views on, but above all experiences with, tactics (or logistics!) for and forms of activist engagement as STS scholar or collective. Please contact the authors or review@easst.net

Literature

Breyman, S., Campbell, N., Eubanks, V., and Kinchy, A. (2017). STS and Social Movements: Pasts and Futures. in U. Felt, R. Fouché, C.A. Miller, & L. Smith-Doerr (Eds.), *The Handbook of Science and Technology Studies*, (4th ed., pp. 289-318). The MIT Press.

Cohen, I. (2023). A Dutch University Just Set a Powerful Precedent for Climate Research. *The Nation* (May 10).

Edge, D. (1995). Reinventing the Wheel, in S. Jasanoff, G.E. Markle, J.C. Petersen & T. Pinch (Eds.), *Handbook of Science and Technology Studies*, (pp. 3-24). SAGE Publications.

Epstein, S. (1995). The Construction of Lay Expertise: AIDS Activism and the Forging of Credibility in the Reform of Clinical Trials. *Science, Technology, & Human Values*, 20(4): pp. 408-437.

Hackett, E.J., Amsterdamska, O., Lynch, M. and Wajcman, J. (2008). Introduction, in Hackett, E.J., Amsterdamska, O., Lynch, M. and Wajcman, J. (Eds.) *The Handbook of Science and Technology Studies* (Third edition, pp.1-8). MIT Press.

Huber, M.T. (2022). *Climate Change as Class War: Building Socialism on a Warming Planet*. Verso Books.

Jamison, W.V. and Lunch, W.M. (1992). Rights of Animals, Perceptions of Science, and Political Activism: Profile of American Animal Rights Activists. *Science, Technology, & Human Values*, 17(4): pp. 438-458.

Krimsky, S., Ennis, J. G. and Weissman, R. (1991). Academic-Corporate Ties in Biotechnology: A Quantitative Study. *Science, Technology, & Human Values*, 16(3): pp. 275-287.

Malm, A. (2021). *How to blow up a pipeline*. Verso Books.

Martin, B. (1993). The Critique of Science Becomes Academic. *Science, Technology, & Human Values* 18(2): pp. 247-259

Martin, B. (1996). Research questions on non-violence. *Nonviolence Today*, 49:pp. 8-11.

Munk, A. K., and Abrahamsson, S. (2012). Empiricist Interventions: Strategy and Tactics on the Ontopolitical Battlefield. *Science & Technology Studies* 25 (1): pp.52–70.

Pinto, M. F.. (2017). To Know or Better Not To: Agnotology and the Social Construction of Ignorance in Commercially Driven Research. *Science and Technology Studies* 30 (2): pp. 53–72.

Rabino, I. (1991). The Impact of Activist Pressures on Recombinant DNA Research. *Science, Technology, & Human Values*, 16(1): pp. 70-87

Sismondo, S. (2008). "Science and Technology Studies and an Engaged Program, in Hackett, E.J., Amsterdamska, O., Lynch, M. and Wajcman, J. (Eds.) In *The Handbook of Science and Technology Studie*s (Thirds edition, pp. 13–31). MIT Press.

Sismondo, S. (2009). Ghosts in the Machine: Publication Planning in the Medical Sciences. *Social Studies of Science* 39 (2): pp. 171–98.

Spiegel-Rösing, I. (1977.) The Study of Science, Technology, and Society (SSTS): Recent Trends and Future Challenges, in I. Spiegel-Rösing & D. de Solla Price (Eds.) *Science, technology, and society: a cross-disciplinary perspective*. SAGE publications.

Taylor, P. J., and Patzke, K. (2021). From Radical Science to STS. *Science as Culture* 30 (1): pp. 1–10.

Waks, L.J. (1993). STS as an academic field and a social movement. *Technology in Society*, 15: 399-408.

Zuiderent-Jerak, T. (2016). If Intervention Is Method, What Are We Learning? *Engaging Science, Technology, and Society* 2 (2016), 73-82.

Zuiderent-Jerak, T., and Bruun Jensen, C. (2007). "Editorial Introduction: Unpacking 'Intervention' in Science and Technology Studies." *Science as Culture* 16 (3): pp. 227–35.

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Affordances, affects, and animosities: Exploring research cultures

Knut H. Sørensen

When the study of organisation cultures emerged as a fad in the 1980s, a joke circulated about the chair of the board and the CEO of a large company who had attended a seminar on the topic. At the end of the seminar, the COB turned to the CEO and said: "I like this idea of a company culture. I want one on Monday". One may get a similar impression by browsing the literature on research cultures. In such literature, developing a research culture responds to a need to do research or improve research productivity. I argue for a different understanding of the concept.

While 'culture' combined with various other words has been influential in STS scholarship, such as 'epistemic culture' and 'academic culture', the link to 'research' has received less attention. This lack of consideration is a pity since we may usefully employ 'research culture' in both a normative and a descriptive manner. It may designate the work culture or working environment of researchers and represent ideas for improving academic life. However, in universities, research cultures co-exist with teaching cultures, constituting departments or sections. The slogan of research-based teaching implies that research and teaching activities should interact while also being distinct knowledge-making practices.

We usually assume that research aims to provide new knowledge. We could then understand research cultures as contexts of knowledge-making, such as routines, standards, habits of interaction, social atmosphere, and assessment criteria. This view could be controversial, given that the scientific ideal is a culture of no culture, a strictly objective and autonomous knowledge-making (Traweek, 1988), but not within STS. 'Research culture' overlaps with Ulrike Felt's (2009) concept of epistemic living spaces, which are the individual or collective perceptions of the structures, rationales, actors, and values, which shape what they aim to know as well as their scientific/scholarly practices and their engagements with society. Clearly, research cultures are intersected by external forces such as funding, reforms and regulations, political and public expectations, and prevailing management practices at higher education institutions. In science policy circles, discursive constructs exist, such as the 'imagined scientist' who is not sufficiently concerned with the social relevance of her/his research and thus needs to be disciplined (Åm et al., 2021).

External forces may interfere in beneficial and harmful ways, providing resources and encouragement but also precarity, work pressure, self-censorship, and harsh competition. Critical university studies have primarily focused on the damaging aspects, framing research cultures as eroded by managerialism, academic capitalism, and budget cuts (Slaughter & Rhodes, 2004; Fleming, 2021). Moreover, we see a growing number of cases where politicians directly intervene in the content of research and teaching, undercutting academic freedom. Recently, we have seen this even in Denmark, and such interventions are becoming pervasive in the US, with Florida Governor Ron DeSantis at the forefront of curbing academic freedom.

Such concerns are essential because external interventions may be detrimental to research, teaching, and academics' working conditions. Harmful interventions should be met by political activism and engagement with the public to explain what universities are for. Such activism has been rare in academic cultures where individualism rules, but recently, there have been examples of direct political action, such as strikes in the UK over pension cuts, precarity, equal pay, and workload. Still, academics' dominant mode of dealing with external interferences is to

individually navigate the challenges through various forms of entrepreneurialism and resistance by neglecting requirements. Contrary to the perception of universities as bulwarks of tradition and conservatism, many academics are entrepreneurial in their research culture enactments, rethinking and changing practices. For instance, they (we) may experiment with professional exchanges, introduce new social events, extend networks/meshworks, find new ways of gaining support, or identify new outlets for research. Research cultures are made; they do not just exist.

ACADEMIC FREEDOM AND EPISTEMIC POLITICS

The primary condition of such entrepreneurial activities is the principle of academic freedom. Current scholarship about this principle tends to focus on freedom of speech and autonomy concerning research topics (Scott, 1919). However, academic freedom means academics have relative autonomy concerning their work, resulting in the widespread practice of self-management. Of course, academics have obligations for teaching and supervision, research contracts, and collegial collaboration. However, at most universities, command and control practices regarding faculty are restricted, even though the introduction of New Public Management procedures has resulted in comprehensive metrics and reporting systems that impose the exercise of self-management.

These systems circumscribe the building and rebuilding of research cultures. For example, they have introduced metrically shaped competition on both an individual and an institutional level, they require quantitative and qualitative reporting that may be time-consuming, they may shape publication strategies, and they affect individual and institutional identities and self-esteem. However, there are considerable contingencies that provide space for navigating these systems and bureaucratic requirements, such as budgeting systems, procedures for ordering books and research equipment, refunds for travel, and booking of rooms for teaching and seminars. The contingencies produce substantial diversity of research cultures, meaning academic working conditions may vary substantially even within the same institution.

Such differences also emerge from socio-material and habitual characteristics of scientific and scholarly work, from 'epistemic machineries' (Knorr Cetina, 1999) and 'epistemic practices' (Lamont, 2009). However, epistemic machineries and practices are also objects of navigation. Thus, Sharon Traweek and I, in our recent book *Questing Excellence in Academia*, also focus on epistemic politics, embedded in collegial interaction and practices, in addition to analysing the political economy of universities (Sørensen & Traweek, 2022). Culture is made through the interaction of human and non-human actors.

Consequently, research cultures may be analysed through the concepts of collegial organising, epistemic politics, academic citizenship, and socialisation. Collegial organising means that a research community is largely self-organised. Ideally, leaders are elected among faculty and decisions are made in meetings where all community members may participate. However, in practice, leaders often are hired, and decision-making is shaped by hierarchy and the exercise of authority. A core issue is the assessment of academic performance, expected to result from peer review; evaluation made by colleagues. Assessments should be based on quality, the central tenet of meritocracy – supposedly an ideal that research cultures should uphold.

Nevertheless, meritocratic practices tend to be opaque, with uncertain outcomes. Already a century ago, Max Weber noticed in his *Wissenschaft als Beruf* that 'Academic life, in short, is an utter gamble'. Research cultures differ in terms of how merit and quality are understood, how and by whom assessments are done, the degree of transparency of reviewing, and what consequences evaluations have. For example, the opacity of assessment processes tends to foster distrust

and suspicion, and a lack of clarity regarding merit may produce frustration and anxiety. How collegiality is practised is critical to how the research culture and its performance are experienced.

The assessment of the quality of research (and teaching, for that matter) is performed as epistemic politics. Epistemic politics is the local practice of arguing about what constitutes proper academic expertise, the range of that expertise, and who may be considered proper or the best experts. It is intimately linked with meritocracy and how academic freedom is practised in the research group. Academics perform epistemic politics in collegial settings such as faculty meetings, seminars, and 'corridor talk' through debates about what constitutes good research, who does good research, what are exciting publications, what are relevant theories to use, and what are acceptable methodologies. Epistemic politics is also enacted in conferences, peer reviews, hiring committees, grant application assessments, and most academic encounters.

Epistemic politics is a core activity of a research group whose members need to exchange, interact, and discuss. If we judge a group by the quality of the academic workplace environment that it offers and its academic performance, we look at how epistemic politics is enacted. Some groups benefit from generous sharing and caring and constructive exchanges. In others, epistemic politics may result in excessive competition, sexual and other forms of harassment, animosity, and improper mobilisation of epistemic authority to end debates (Hasse & Trentemøller, 2008). Thus, epistemic politics is affective and emotional. The scholarly literature has paid scant attention to the affective features of research, which reflects the ideal of dispassionate research. However, as Parker and Hackett (2014) demonstrate, such features are pervasive in the conduct of science.

The principles of academic freedom provide protected, autonomous spaces where epistemic politics may unfold quite freely. Epistemic politics is an unregulated area. This autonomy means that university leadership is only willing to intervene in departments and research groups if internal conflicts are clearly untenable. Only rarely are departments placed under external administration or receivership.

The role of academic citizenship

Epistemic politics is shaped by academic citizenship. In *Questing excellence*, we understand academic citizenship broadly as the virtuous performance of academic tasks, including research, teaching, and service towards students, colleagues, and society. We may debate what virtues are essential to epistemic politics, but something as banal as civility is a critical ingredient. Also, reflexivity is called for. Another important virtue is universalism in the sense of being inclusive in terms of gender, ethnicity, class, and age. Most of us have observed research cultures where internal competition, disrespect, discrimination, and routine displays of epistemic authority produce a caustic climate. Academic citizenship should be given much more attention when considering how research cultures may be improved.

This need suggests that we revisit the processes through which academics are socialised, not only through research training but also concerning recruitment and introduction of new faculty. The subject formation of researchers happens in contexts that ask for entrepreneurship, competitiveness, metric productivity, and strategic skills to navigate the system. What this means varies. Usually, mobility is rewarded. You ought to have been at the 'right' places and working with the 'right' people. Academic citizenship is seldom explicitly appreciated but may be valued if a researcher has stayed for a long time at the same place, demonstrating valuable contributions to the department and being socialised into local practices and values.

However, given the widespread emphasis on mobility, recruiting researchers often means hiring an external person who has been socialised in a different context. When applicants are assessed, their publication records are easily available, their teaching experience is also accessible, although teaching quality may be more challenging to evaluate and academic citizenship even more so. How do you proceed if you want to develop the research culture in your department? An obvious choice would be to look for academic stars with an impressive publication record, but this may result in hiring someone who dislikes teaching, abstains from academic service work, and finds collegial collaboration difficult. Such a person may increase the department's publication output, but at what cost?

The current expectation is that research cultures should be excellent or internationally prominent, but these concepts are empty signifiers. There is no intrinsic meaning to excellence or prominence beyond questionable rankings and vague reputation assessment. However, the metrification of academic work has highlighted quantitative indicators like the number of publications or citation counts. The research unit that strives for excellence may end up collapsing its research culture to a singular concern for publication achievements.

Applying the concept of academic citizenship also to research units may serve as an antidote. At the backbone of the concept is reflection regarding what constitutes high-quality and meaningful research, insisting on the need to engage with questions about what research should be and for whom. In this way, academic citizenship asks that we care for the performed research, its benefits and risk, and its incorporation into society, as well as for students and colleagues. Achieving sustainability transitions, a goal that preoccupies many of us, depends more on care than quantitative excellence. A beneficial research culture affords us to engage in meaningful activities. Thus, when we study research cultures, we need to combine normative and empirical analysis.

REFERENCES

Cetina, K. K. (1999). *Epistemic cultures: How the sciences make knowledge*. Cambridge, MA: Harvard university press.

Felt U. (2009). Knowing and living in academic research. In Felt U. Ed. *Convergence and heterogeneity in research cultures in the European context*. (pp. 17–40). Prague: Institute of Sociology of the Academy of Sciences of the Czech Republic.

Fleming, P. (2021). *Dark Academia: How universities die*. London: Pluto Press.

Hasse, C. & Trentemøller, S. (2008). *Break the Pattern! A critical enquiry into three scientific workplace cultures: Hercules, Caretakers and Worker Bees*. Tartu: Tartu University Press. Available from http://cordis.europa.eu/documents/documentlibrary/116810421EN6.pdf
http://edu.au.dk/fileadmin/www.dpu.dk/forskning/forskningsprogrammer/organisationoglaering/innovation/udgivelser/forskning_organisation-og-laering_20090914105043_break-the-pattern-viimane.pdf

Lamont, M. (2009). *How professors think: Inside the curious world of academic judgment*. Cambridge, MA: Harvard University Press.

Parker, J. N. & Hackett, E. J. (2014). The sociology of science and emotions. In Stets, J. and Turner, J. Eds. *Handbook of the sociology of emotions: Volume II*, 549-572. Dordrecht: Springer

Scott, J. W. (2019). *Knowledge, power, and academic freedom*. New York: Columbia University Press

Slaughter, S. & Rhoades, G. (2004). *Academic capitalism and the new economy: Markets, state, and higher education*. Baltimore: Johns Hopkins University Press.

Sørensen, K. H. and Traweek, S. (2022). *Questing Excellence in Academia: A Tale of Two Universities*. London: Routledge (open access from https://www.taylorfrancis.com/books/oa-mono/10.4324/9780429290633/questing-excellence-academia-knut-s%C3%B8rensen-sharon-traweek)

Traweek, S. (1988). *Beamtimes and Lifetimes: The World of High Energy Physicists*. Cambridge, MA: Harvard University Press.

Åm, H., Solbu, G., & Sørensen, K. H. (2021). The imagined scientist of science governance. *Social studies of science, 51*(2), 277-297.

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THOUGHTS ON FUTURE STS

Jarita Holbrook

Introduction – EASST Review has been the place to give voice to emerging STS disciplinary foci such as, for example, including 'methodography' (Ingmar Lippert and Rachel Douglas-Jones 2019) transplanetary ecologies (Matjaz Vidmar 2020), decolonizing STS (Sarah Rose Bieszczad 2022), and looking at the specifics regional differences in STS (Sarah R Davies et al. 2022). The reflexive aspects of these last two contributions, point to the much needed study of STS as a discipline (Erik Aarden 2016) using STS methods and theories. Given the recent foregrounding of bullying, studying ourselves is imperative including heeding Davies' (et al. 2022) call to study care within STS.

An earlier call to decolonize STS, pointed out the deliberate silencing of Indigenous science and Indigenous voices in STS work, poor engagement with Intersectionality opting instead for the male/female binary along with the lack of racial and ethnic diversity within EASST (Sophie Toupin 2018) perhaps indicating an unwelcoming environment. In some ways, Terra Nullius has been replaced with Intellectual or Science Nullius where Indigenous lands are considered places where science, innovation and domestication do not and have not occurred. I want to echo the call to include studies of Indigenous science and scientists and the circulation of Indigenous science, as well as creating a welcoming environment for marginalized voices and minoritized people. In addition to including Indigenous voice and Indigenous Science, what follows are directions that STS should embrace in the future: Intersectionality, Forced Modesty, Curated Spaces, COVID lives, and Afrofuturism.

Intersectionality - Intersectionality offers a means of broadening our analysis beyond the male/female binary to include race, ethnicity, class, nationality, visible and invisible disabilities, sexuality among other identities. In some circumstances, discussion and questions of economic class are considered taboo subjects, which we have to skillfully navigate as we do our data collection. There are further challenges using an Intersectional lens while doing multi-site research as each aspect of identity has to be recalibrated and redefined for the local context, as well as capturing the nuances of the identities of the scientists that migrate and emigrate for work. My current project studying the careers of astrophysicists made me aware of two identities that I had not considered: those that are adopted (not raised by their birth parents) and those that have been stalked (for definition and a list of stalking behaviors see https://www.police.uk/advice/advice-and-information/sh/stalking-harassment/what-is-stalking-harassment/). I am letting these two groups teach me about how these parts of their identities inform how they navigate their careers in astrophysics. Additionally, I have learned about astrophysics environments where scientists feel safe to be fully themselves (expressing all aspects of their Intersectional identities) and those where they cannot. For example, departments where they do not feel comfortable sharing that they are married to someone of the same sex.

Forced Modesty – Quantitative studies of publications, grants, invited talks and awards are used to tease out biases in favour of men scientists. For example, men scientists are not expected to volunteer to do academic housekeeping, do not have to spend time and energy demonstrating expertise during every interaction, and are not viewed unfavorably if they are not the primary caregivers of their dependents. When making suggestions, it has been posited that men use

more exciting and sensational language and that women should adopt the same practice. However, no one has studied how women have been censured by journal editors, peer-reviewers and well-meaning colleagues to remove such language forcing them to make more modest claims. Female scientists have spoken of being told by even their department chairs to change their promotion materials towards using more modest language (they resisted!). Exploring forced modesty may shift our understanding of and interpretations of those quantitative studies showing bias.

Curated Spaces – Moving online has invited us into the offices, home offices and living spaces that serve as backgrounds during meetings. With the option of having an artificial background rather than a live background indicates that spaces have been cleaned and at some level curated if they are made visible. That curation may mean displays of accomplishments such as diploma's, expertise such as conference posters or books on display and displays of profession such as a telescope or a skeleton, etc. How are such displays gendered and related to Intersectional identities? What do the scientists identify as objects of power in their spaces?

COVID Lives – COVID changed the ASTROMOVES project and provided a rich dataset of interviews about the lives of astrophysicists during COVID. I have crafted some of these interviews into a documentary film "ASTROMOVES: Astrophysicists and COVID". After screenings, I'm often asked if there is anything unique about how the astrophysicists responded to COVID compared to other disciplines? The answer is: I don't know, since there have been very few publications on the topic as of yet. For example, there have been reports on the differential impact of the Pandemic on women, but similar to how some disciplines have more or less women, were women more negatively impacted depending upon the discipline?

Afrofuturism – Science Fiction in STS has been studied as futuristic visions of new science, new technologies and new societies among other things. I would like to see deeper STS engagement with Afrofuturism. I find it fascinating how Afrofuturism is part of music in a way that science fiction is not. In Afrofuturism, I see parallels between the negative experiences that scientists experience within their discipline, yet still have to work and live with their abusers, to those Afrofuturistic stories of Black protagonists grappling with their European/oppressor blood (e.g. Okorafor 2018).

Summarizing, I want the future STS to be more reflective about ourselves as a scientific discipline and as scientists, to engage with Indigenous science and their communities, to move beyond male/female to Intersectionality, to explore Forced Modesty, to bring curated online spaces into the analysis of the performative aspects of scientists, to study the lives of scientists with COVID and during the COVID restrictions, and more studies including Afrofuturism.

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REFERENCES

Erik Aarden. 2016. 'Tracing Sociomaterial Practices in Technoscientific Worlds. Stakes and Directions for STS'. *EASST Review* 35 (1). https://www.easst.net/article/tracing-sociomaterial-practices-in-technoscientific-worlds-stakes-and-directions-for-sts/.

Ingmar Lippert and Rachel Douglas-Jones. 2019. '"Doing Data": Methodography in and of STS'. EASST Review 38 (1). https://www.easst.net/article/doing-data-methodography-in-and-of-sts/.

Matjaz Vidmar. 2020. 'Transplanetary Ecologies: A New Chapter in Social Studies of Outer Space?' EASST Review 39 (2). https://www.easst.net/article/transplanetary-ecologies-a-new-chapter-in-social-studies-of-outer-space/.

Okorafor, Nnedi. 2018. *Who Fears Death / Nnedi Okorafor*. London: Harper Voyager.

Sarah R Davies, Tereza Stöckelová, Fredy Mora Gámez, Roos Hopman, Patrick Bieler, and Workshop Participants. 2022. 'STS in Context: Provincialising STS from Central Europe'. *EASST Review* 41 (3). https://www.easst.net/article/sts-in-context-provincialising-sts-from-central-europe/.

Sarah Rose Bieszczad. 2022. 'Reflections and Suggestions for the Future of European STS: An Early Career Workshop Report'. *EASST Review* 41 (2). https://www.easst.net/article/reflections-and-suggestions-for-the-future-of-european-sts-an-early-career-workshop-report/.

Sophie Toupin. 2018. 'Decolonial and Intersectional Feminist Afterthoughts'. *EASST Review* 37 (4). https://www.easst.net/article/decolonial-and-intersectional-feminist-afterthoughts/.
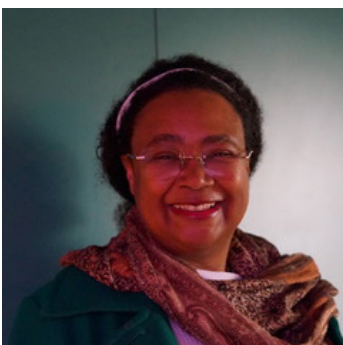
Jarita Holbrook

Can dark sky tourism benefit indigenous communities in Namibia?

Sisco Auala, Hannah Dalgleish

Evidence already exists supporting the use of indigenous knowledge systems for socioeconomic welfare in Namibia. However, in current times, the valuable resource of indigenous knowledge of astronomy is often no longer shared and is thus at risk of being lost altogether. The inclusion of indigenous starlore within tourism experiences in Namibia is an important consideration for the country's development. Dark sky tourism (DST) – where visitors can experience a pristine night sky unaffected by light pollution – is a niche tourism activity which could provide new opportunities for rural communities in Namibia, supporting the sustainable development goals via economic development, job creation and mitigating poverty.

Introduction

Dark sky tourism occurs predominantly in remote areas with little-to-no light pollution, where travellers can observe celestial objects and take part in other activities like astrophotography (Dalgleish & Bjelajac, 2022). While stargazing, visitors may see everything from planets and stars to other galaxies, observed with telescopes, binoculars, or the naked eye. Many dark sky tourists are amateur or professional astronomers seeking unpolluted nightscapes (Dalgleish & Bjelajac, 2022). Worldwide, DST is increasing in popularity as a niche tourism product (Jacobs, Du Preez & Fairer-Wessels, 2020).

Dark sky tourism has also been found to support several of the United Nations' sustainable development goals (SDGs) and shows potential for capacity-building and socioeconomic development (Dalgleish, Mengistie, Backes, Cotter & Kasai, 2021). This includes educational benefits, such as the rediscovery of ancient traditions through celestial stories, which can help to awaken an interest in modern science (Urama, 2021). Another study highlighted DST as an opportunity for the tourism industry to ensure environmental protection in two ways: (1) limiting the use of artificial light at night within its national parks and (2) educating the public and creating awareness of the detrimental impact of emitting night light (Wassenaar, 2020).

Namibia has one of the lowest population densities in the world, which lends itself to unpolluted, dark night skies. Namibia is also one of the world's driest countries, and so in combination with its low levels of light pollution, the country is a viable destination for dark sky tourism development (Stone, 2019). However, the participation of indigenous communities and inclusion of astronomy-related indigenous knowledge is often missing in the experience of dark sky tourism.

Alongside stargazing and astrophotography, DST provides an opportunity for cultural aspects to be shared and experienced via storytelling. These stories are based on ancient mythology or indigenous starlore surrounding the constellations, asterisms and dark clouds in the night sky, depending on the cultural heritage of the region. The inclusion of indigenous starlore is rare in dark sky tourism. One example exists in the offerings of the company Astrotourism Western Australia. In Australia, Aboriginal indigenous knowledge of astronomy includes an

understanding of the seasons and a familiarity with how particular food sources emerge. The Aboriginal people use the dark sky in marriage practices and other cultural mnemonics (Hamacher & Norris, 2011). Notably, the Western Australian government's Department of Planning, Lands and Heritage produced a position statement in January 2022 entitled "Dark Sky and Astrotourism". The statement provides a set of principles and planning measures to reduce light pollution to safeguard dark sky tourism, and its associated traditional Aboriginal cultural experiences, as an emerging product in the local tourism market. Ancient indigenous communities have been observing the night sky for millennia thereby developing a cultural connection to it.

Through the adoption of a more westernised lifestyle, many indigenous communities in Namibia, as in the rest of Africa, have lost their connection to the night skies and knowledge garnered through cultural practices used by their predecessors for ancient astronomical observation. There is an urgent need to preserve this rich cultural heritage through sustainable DST development.

Dark Sky Tourism Development in Namibia

As the interest in dark sky tourism grows worldwide, it is important to address the lack of discussion on indigenous astronomy and its role in DST. With some of the darkest skies in the world, and a wealth of indigenous knowledge, Namibia is an ideal country in which to explore the relationship between indigenous people, starlore and tourism.

Namibia's rural communities and conservancies have been involved in tourism activities for over twenty years, although dark night skies have been overlooked as a tourism experience. This is due to a lack of awareness of the potential of this type of niche tourism to bring benefits to their communities when developed humanely and sustainably.

A secondary reason for the lack of impetus is the loss of indigenous knowledge of the night skies. Few elders still hold this astronomy lore, passing it on as part of the oral tradition, but very little of this body of knowledge has been documented to be shared with the younger generations.

Local tour guides in rural areas have not realised the full potential that this indigenous knowledge could play in drawing more tourists to their areas. The private sector in Namibia offers DST experiences, however, few of them include or incorporate indigenous astronomy knowledge in their offerings.

The Namibian government regards tourism as a priority sector for socioeconomic development (MEFT, 2016). Community-based tourism programmes involving indigenous communities have been praised over the years for their ability to empower indigenous communities in Namibia, although some have also been criticised for the failure to address indigenous community needs and aspirations (Koot, Ingram & Bijsterbosch, 2020).

Historically, indigenous communities have fashioned strong relationships with their surrounding natural environments to ensure their survival and have safeguarded the source of indigenous knowledge that constitutes a part of their cultural identity (Warnholtz, Ormerod & Cooper, 2020). Losing connection to nature, for which the night sky is a part, threatens an indigenous community's sense of belonging and social cohesion, creating a future that is unsustainable. DST provides an opportunity to preserve indigenous astronomy by providing opportunities for younger members to remain in their community, and by necessitating the need for starlore to be retained and passed on to future generations.

In Namibia, sustainable development agendas are based on addressing gender inequalities, and tourism has been identified as a key means of addressing these shortcomings (Dowling & Pforr, 2021). Empowering indigenous women in DST development in Namibia is essential to achieving the sustainable development

goals. Research has shown that failure to include women in tourism development has resulted in socioeconomic costs and damage to the natural environment (Boluk, Cavaliere & Higgins-Desbiolles, 2019). Alternative tourism activities like dark sky tourism offer an opportunity for women to reconnect with the natural environment and play a role in preserving their rich cultural heritage. Ancient celestial interpretations by women can help to educate their communities on the value of the night skies for socioeconomic development and aid in addressing gender inequalities in rural tourism development in Namibia. Rural women could establish homestay tourism experiences that offers unique and authentic cultural heritage experiences of the night skies in an eco-friendly unpolluted night sky natural environment.

Conclusion

It is recommended that DST in Namibia should be implemented in a manner that empowers and benefits indigenous communities (especially women), the tourism sector, the general population of Namibia, and international tourists through a sustainable dark sky tourism development strategy. As we look to the future and consider tourism recovery in a post-Covid-19 world, research on dark sky tourism is especially relevant. Provides novel and meaningful insights to several related academic fields. Filling an existing gap in the literature on the potential for dark sky tourism to contribute to sustainable community development in rural areas with little light pollution.

References

Boluk, K.A., Cavaliere, C.T. & Higgins-Desbiolles, F. 2019. A critical framework for interrogating the United Nations Sustainable Development Goals 2030 Agenda in tourism. *Journal of Sustainable Tourism*. 27(7):847–864.

Dalgleish, H., & Bjelajac, D. 2022. Dark Sky Tourism. In Encyclopedia of Tourism Management and Marketing. Cheltenham, UK: Edward Elgar Publishing.

Dalgleish, H., Mengistie, G., Backes, M., Cotter, G., Kasai, E. 2021. Dark sky tourism and sustainable development in Namibia. Proceedings IAU Symposium No. 367: Education and Heritage in the era of Big Data in Astronomy.

Dowling, R. & Pforr, C. 2021. Geotourism–a sustainable development option for Namibia. *Journal of Ecotourism*. 20(4):371–385.

growth and investment promotion strategy. Directorate of Tourism, Windhoek, Namibia.

Hamacher, D.W. & Norris, R.P. 2011. "Bridging the gap" through Australian cultural astronomy. *Proceedings of the International Astronomical Union*. 7(S278):282–290.

Jacobs, L., Du Preez, E.A. & Fairer-Wessels, F. 2020. To wish upon a star: Exploring Astro Tourism as a vehicle for sustainable rural development. *Development Southern Africa*. 37(1): 87-104.

Koot, S., Ingram, V.J. & Bijsterbosch, M. 2020. State paternalism and institutional degradation at Treesleeper Eco-camp: Community-based tourism and the loss of sovereignty among Bushmen in Namibia. *Development Southern Africa*. 37(3):432–445.

MEFT (Ministry of Environment, Forestry and Tourism). 2016. National sustainable tourism

Stone, C. 2019. Prospects of an Astrotourism Site in Namibia. *Pence-Boyce STEM Student Scholarship*. [Online], Available: https://digitalcommons.olivet.edu/pence_boyce/12.

Urama, J. 2021. 'The African cultural astronomy project: The hidden treasure.' Conference of the African Astronomical Society, held 8-12 March, 2021 virtually, id.81

Warnholtz, G., Ormerod, N. & Cooper, C. 2020. The use of tourism as a social intervention in indigenous communities to support the conservation of natural protected areas in Mexico. *Journal of Sustainable Tourism*. 0(0):1–16.

Wassenaar, A. 2020, Astrotourism as an income-generating opportunity in South African national parks. Bloemfontein: University of Free State. (PhD-thesis.)

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Scientific integrity in-action: How to follow STS reflexivities after MeToo_Academia, and especially #MeTooSTS

Melpomeni Antonakaki

This contribution assumes an in-action stance towards the reflexive project launched under the hashtag #WeDoSTS. I attend to the politics of semiotics captured in hashtag form, across three, independent-from-originator uptakes of the project and finally in a close reading of given definitions. In this key moment for STS reflexivity, I recover from relative obscurity concepts developed in the context of the SSK/STS "capture (by politics)" debate. Such theoretical move is suggestive of pathways for considering how the affiliations, commitments and epistemic lessons we develop in collaborative projects and making/doing interventions might productively disrupt the politics of STS.

It has been roughly half a year since the 4th of November 2022, when Claudia Schwarz-Plaschg published her "testimonial on the Harvard STS Program"—a document that she explains was requested of her in light of the Program's 20th year anniversary. In its 8min of reading length (according to publishing platform Medium), Schwarz-Plaschg narrates a series of terrible interactions transpiring in the context of this renown fellowship program. The reader gets a feel of how those events were experienced throughout the author's one year of tenure at Harvard, but also learns about the ways their effects kept on reverberating and casting a long shadow over her life and career circumstances for years afterwards. It is not my place, and here is not the place, to repeat the contents of the testimonial. Suffice it to say the reader is given an early "[c]ontent warning [including]: *Sexual harassment, abuses of power, disillusionment*" (Emphasis at original, Schwarz-Plaschg, 2022: online).

The hashtag #MeTooSTS accompanied the testimonial to Twitter-land, only days before Twitter experienced the big academic exit of early winter 2022. But there are other timings to factor in the story. To the best of my memory and insight, I could not recall any other occasion that a #MeToo account has been shared in such a textual form and timing that on the one hand passionately reclaims membership in a community (this is after all a fellow's testimonial, compliant to a formal institutional request), while in so doing subverts all expectations for how testimonials are to be delivered, used and valued in economies of academic prestige and credibility. Its upload to Medium (a public forum, instead of a submission at the Program's inner bureaucracies) coincided with the opening of the celebratory panel discussions and so loomed over the spectacle of anniversary throughout that long weekend.

Captured at the space between #MeTooSTS and #WeDoSTS

But once the celebrations were done, STSers' public commentary on #MeTooSTS seemed to better connect with the second hashtag coined by Schwarz-Plaschg at the time of the testimonial: #WeDoSTS is a call for critical self-reflexivity, premised on the proposition that "we as STS also need to *do* STS in our own community and not just talk STS to other academic fields to resist the reproduction of epistemic and institutional injustices" (Emphasis at original, 2022: online). With or without

1 This is a quick schema of a series of disruptions brought about by MeToo academic activisms in the spaces that traditionally are responsible for (and benefit from) assembling scientific integrity and academic autonomy:

Associations have put out statements and ponder the extent and the shape of their obligation(s) to their membership, leading to the creation of ethics policies and codes of conducts;

Departments are observing and establishing codes of conduct and recruit specialized offices/resources for student, faculty and administration use;

Research universities and institutes install oversight and dispute resolution procedures in compliance with local regulation and terms of funding contracts;

Ombudspeople or integrity officers are reconsidering the span of their activities and purview beyond established definitions of publication misconduct and research data accessibility;

Academic brands and research portfolios may now include the foregrounding of "diversity and inclusion" strategies; if it is a campus-based university then obligations to residents and users of the spaces are negotiated on the level of university management (often governed by a private entity) too.

These are some of the observed phenomena in countries where MeToo has set its stakes within the academic world, and they feature both widespread sociotechnical arrangements and cross-organizational or institutional commitments.

the hashtag, the uptake of WeDoSTS is interesting to observe and to consider against the backdrop of earlier propositions for how STS and MeToo are to strategically interact.

Any conversation would benefit from remembering that there is an *earlier*—a precedent of sorts for considering how to properly articulate the "we" of STS in either hashtag solidarity or institutional reform, in ways that speak directly to the concerns and demands of MeToo movements[1]. Volume 37, Issue 3 of the EASST Review opens with a short overview of what many back then were framing "as the #metoo moment in the discipline [of anthropology]" (Criado, 2018: 5). Then editorial board member Tomás Sánchez Criado's reading of the #hautalk discussions over power abuses in work and research environments culminates in a wholehearted endorsement of STS participation and solidarity, in the form of the question-and-answer duet: "Shall we? Yes, #wetoo" (2018: 6). A page later, Celia Roberts is the first to respond to this outward-looking endorsement, offering a reflexive re-cast of Criado's answer ("[w]e-too?", reads the title) and a care-ful provocation to "first try to sort out our own institutions by openly and clearly addressing issues of inequality and diversity" (Roberts, 2018: 8).

Four years later, and countless MeToo_Academia stories between 2018-2022, Schwarz-Plaschg's framing of the matters at hand (how to see/hear them, how to react to them) introduced a space between the interpersonal experiences that informed #MeTooSTS and the institutional responses that made the coinage of the second hashtag necessary. WeDoSTS captures a movement away from the alleged events of sexual harassment and towards problematising the widespread abuses of power, discrimination and career sabotage inflicted upon academic community members "when one person is given too much gatekeeping power" (Schwarz-Plaschg, 2022: online). This move is consistent with how other MeToo activisms at Harvard, at their most successful, have escaped the confines of individualised cases against specific perpetrators and have instead established interventions at the level of collective action, targeting systemic vulnerabilities and building a discourse premised onto unique epistemic insights of victims and survivors of sexual violence[2].

It is nevertheless noteworthy that in Schwarz-Plaschg's case the movement away from sexual violence and toward the operations of power was made explicit from the apparent get-go. The outlines of respective hashtag content and candidate constituencies for each were offered at the level of original testimonial. Separation was further enacted in choices over hashtag form and syntax. Unlike Criado's and Roberts's earlier iterations, WeDoSTS mirrors MeTooSTS in relative length (tripartite structure), phonetic (Me/We + Too/Do + STS) and syntactical (personal pronoun + activity + topos) composition. But I'd posit that, once removed from the context of the testimonial, not much of MeToo necessarily survives inside WeDoSTS reflexivities, unless labours are invested for painstakingly ensuring its continuous membership. This contribution attends to this dynamic as one that pertains to the politics of semiotics (Mol and Mesman, 1996: 421). The interconnectedness between two orders of content and legitimate membership become thus *a matter of uptake*, rather than principle.

Moreover, if one was to compare the definition of WeDoSTS vis-à-vis Criado's gesture towards an older sister (for some in STS, mother-) discipline, it becomes obvious that the former significantly broadens the horizons of outward address ("other academic fields" STS is on speaking-terms with). Similarly, if one was to compare it to Roberts' foci (inequality and diversity in our research cultures), WeDoSTS widens the scope of STS introspection and political responsibility to encompass all sorts of epistemic and institutional injustices. An expanse has been offered; navigating it is an experiment in doing STS in an accountable manner, "from somewhere for someone" (Jerak-Zuiderent, 2015: 414)—acknowledging that this will not be for everyone, making the "cui bono?" (Star, 1990: 43) still the principal stance in the politics of STS, including the

politics of STS reflexivities. I therefore suggest approaching WeDoSTS with a certain weariness to "should" participation, and instead applying a care-ful investment and cultivating conditions of "could" participation (Singleton, 1996: 462).

PUTTING THE WE IN #WeDoSTS

I want to start a short inquiry of how we(s) have been enacted in recent responses to the WeDoSTS call by foregrounding another's question. Volume 41, Issue 3 of EASST Review was concluded with a statement by Maya Horst titled 'Making STS better.' Half way in, Horst puts forward what she views as the essential question of

> HOW OUR STS COMMUNITY CAN BECOME A SPACE THAT DOES NOT ADDRESS HARM THROUGH EXCLUSION AND PUNISHMENT ALONE, BUT THAT ALSO FOSTERS LEARNING, REMEDIATION AND GROWTH, PARTICULARLY WHEN WE ARE DISCUSSING MORE NUANCED QUESTIONS ABOUT WHAT CONSTITUTES APPROPRIATE ACADEMIC CONDUCT (2022: ONLINE).

Tentative answers are shaping up in efforts to navigate the space between the two hashtags. It seems "we" are starting from our immediate vicinities (although the topology of closeness, immediacy or familiarity is otherwise explored across the three projects) and "we" seek outward connection, rather than mere self-reflection.

NETWORK TO NETWORK PEER-LINKS

One project that fosters widespread STS reflexivity stems from the 6th of December 2022 statement on behalf of the Science in Public (SIP) research network. For those outside the UK, SIP's statement of committing to a process for "[b]uilding better research cultures that prevent harassment and bullying" and to "reporting back to STS and connected communities on this work" (Science in Public Research Network, 2022: online) might have gone unnoticed. In their statement a Network-to-Network topology is enacted, which one may consider as *foregrounding the role of peer-links between network*s for extending the "we" beyond local terms and conditions. An individual's academic status and reputation make a difference along such topology, to solidify the claim to peerage. I have some reservations about whether peer-links, namely scholars who have established multiple, albeit partial membership across networks, can shoulder the project alone. However, it is remarkable that, among the public reactions so far, only an SIP member has publicly called upon the "[Science and Democracy Network[3]] Council [for issuing] a public apology for the research culture along with a credible plan for reform" (Pearce, 2022: online).

INFRASTRUCTURE MEETS INFRASTRUCTURE IN RELATIONS OF MUTUAL USE

For those who operate outside the German-speaking context or EASST, the "Keep the #MeTooSTS/#WeDoSTS conversation going" campaign announcement of the association stsing e.V.[4] might have gone unnoticed. Their Best Practices working group (of which, I am member) launched a collaboration with the Network against Abuse of Power in Science (MaWi) based on the view:

> THAT THE QUESTION OF HOW #WEDOSTS IN GERMANY REQUIRES AN UNDERSTANDING OF HOW POWER ABUSE IS FACILITATED AND ALLOWED TO PLAY OUT. TESTIMONIES IN THIS SENSE ARE EVIDENCE AND DESERVE TO BE STUDIED AS SUCH IN ORDER TO FIND PRACTICAL SOLUTIONS AND STRATEGIES. (DOING STS IN AND THROUGH GERMANY, 2023: ONLINE)

2 For an excellent sample of writing that achieves the described move, see. Twitter thread of first author for a synopsis of contents and background story: https://twitter.com/charnalaw/status/1569704626047549442 , or find the letter here: https://portals.wetransfer.com/reviews/8f763bfa-f035-4145-8f9f-fea1ebee4304?item=3e214b04-2cd0-4184-8b2c-d10a80eae7d4

3 Pearce was effectively one of the first, if not the first, to publicly acknowledge the close intertwinement of the Harvard STS Program and the SDN, see. https://sts.hks.harvard.edu/about/sdn.html

4 short for: Doing Science and Technology Studies in and through Germany

This epistemics-oriented campaign was the result of collaborative encounters with the MaWi during late 2022. In contrast with the first project, personal identity and professional status have not mattered here as much, and membership in both networks has not been observed. Trust that "we" can collaborate across respective infrastructures has been the key element. The project is underway in a radically distributed fashion (involving two separate operations linked via a secure channel for data exchange), with participants having topical responsibilities and coordinating over an opensource, instant messaging program. Probably nobody and no single communications- channel ever achieves an overview or could alone stir future developments. Due to its infrastructural affordances, this is another project which could develop in unexpected directions (, to the extent that "we" volunteer labour). For example, will this epistemic partnership also extend towards solidarity work for the current institutional and epistemic struggles of one of MaWi's members and thinkers? I refer to Susanne Täuber, a Netherlands-based social safety expert and co-author of the viral notion of "academic bullying", which is central for #MeTooSTS/#WeDoSTS. Täuber was fired in May 2023 from her position at the University of Groningen (Northern Netherlands District Court, 2023). In hashtag solidarity terms, one might as well ask: will the #WeDoSTS meet and talk views with the #AmINext campaign and the activisms that advocate for Täuber's reinstatement?

Nested structures of student representation

Finally, if you are not affiliated with the Vienna STS Department, the students' mobilisations under the social media username WeDoSTS_Vienna might have flown under the radar. Being among the first to publicly react, the account called out to central protagonists in the #MeTooSTS/#WeDoSTS conversation in a twitter thread. Considering their departmental affiliation and, as I recently learned, against the backdrop of academic labour protests in 2022, the students felt "like we can and should hold STS accountable to continuous reflexivity and attentiveness to power structures within the field" (WeDoSTS_Vienna, 2022: online). This type of intervention proved harder than initially anticipated. A fairly recent report narrates how the months between November 2022 and May 2023 saw debates and developments over student (self-)organized representation at the level of university politics, and the launch of a minor epistemic project in the form of an openly accessible padlet for submissions:

> EMPHASIZ[ING] THAT @WEDOSTSVIENNA REMAINS FLUID. WE WANT IT TO REMAIN FLEXIBLE IN ORDER TO FOSTER CONTINUED DISCUSSION AND ARE EXCITED TO HEAR YOUR SUGGESTIONS FOR WHAT IT CAN AND SHOULD BE. (WEDOSTS_VIENNA, 2023: ONLINE)

Overall WeDoSTS_Vienna sustains itself along an ecology of nested structures, a "configuration of heterogeneous elements [that] gradually articulates the potentiality" (Suzuki, 2017: 140) of their agenda. Some of their unique values include, among others: rotating through tasks and responsibilities to prevent participants' exposure and burnout, grounding WeDoSTS down to responsibilities of educators and supervisors, being care-ful for how the incoming cohort ought to be introduced to the departmental self-reflection processes.

Talking reflexivity

Let me briefly return to Schwarz-Plaschg's #WeDoSTS definition of "not just talk[ing] STS to other academic fields to resist the reproduction of epistemic and institutional injustices." Ever since I read this sentence, I (obsessively, embarrassingly) wonder whether a comma should feature between "academic fields" and

"to resist". Syntax made me pay some extra attention to it. Does it claim that STS strategically talks other fields into resisting the reproduction of epistemic and institutional injustices? Or will this resistance be the unique accomplishment of WeDoSTS project(s)? And what does reflexivity have to do with either?

Where the two plausible readings meet, there lies a key articulation for the integrity of STS. One which considers STS's participation in the politics of talk, and one which engages in a timely reflection over having adopted "...'public talk' (that is, talk both by and about the public) [as] an important site for science and technology studies analysis." (Irwin, 2006: 299) I draw on Kelly Moore's approach to define our scientific integrity as construct-able (and revis-able) upon the dynamic alignment of two *in-principle* incompatible lines of action. One line of action appears grounded in the ability of STS programs to draw clear demarcation lines between scientific and non-scientific interests, and defend academic and cultural turf against other disciplines. Attentiveness to the operations of power along the networks and worldly projects of technoscience has been one way that STS has drawn own markers of academic distinction.

The second line of action focuses on how in order "[t]o reap prestige and financial support (from whatever source), scientists must also demonstrate that their work is ultimately objective and useful to a broad constituency." (Moore, 1996: 1593) Will anyone be surprised to hear that it was Sheila Jasanoff, a scholar/personality central to the WeDoSTS debate, who first articulated how reflexivity can be strategically used to broker access to field sites and to develop politically influential positions and discourses? In her contribution to the capture by politics debate, Jasanoff posits reflexivity as "especially desirable when selecting sites for research, styles of explanation, and methods of articulating normative positions" (Jasanoff, 1996: 393). To fully comprehend how constitutive to Euro-American STS this proposition has been, one need only compare it with the relative abandonment of other candidate positions for putting the political capture anxieties to rest—namely, Ashmore's thesis that reflexivity is useful because it is politically useless (Ashmore, 1996: 307) and Collin's recourse to the ideal of neutrality (Collins, 1996: 222).

Jasanoff's proposition on the strategic uses of reflexivity has been formative, even for STS programs that declare not vested interest in publicly speaking the idiom of coproduction. Whether stemming from dissatisfaction with the limitations of ELSI/A configurations in European research partnerships or from deep-seated anxieties disrupting ethnographic work (which was more of a German debate last decade, see. Niewöhner, 2016), notions such as making time-space for reflexive work (Felt et al., 2013: 5) or distributing reflexivity in co-laborative epistemic projects (Bieler et al., 2021) have functioned as credibility vectors (Shapin, 1995: 269) for STS: each has carried (perhaps differently) programmatic claims about how STS ought to be put in good use by politics, inside research and innovation cultures or in epistemic partnerships and emerging political agendas. In the German-speaking context, notions for how to do STS in politically-relevant ways have normalized a discourse of so-called "STS institutionalisation"—discourse whose contents or sentiment are barely recognisable in other European and especially non-European contexts.

In the key moment of WeDoSTS reflexivity, STSers could benefit from deconstructing, effectively "mind scripting" (Allhutter, 2012) our own investments into reflexivity as a powerful trope. The "we" I myself care to engage with would be willing to experience some necessary productive disruption onto established notions of our field's institutionalisation pasts, presents and futures and, beyond that, would also be willing to discuss the shapes of STS's useful-ness in the worlds of scholarship and politics. For that reflexivity won't be the vehicle for navigating the expanse of how WeDoSTS, but rather the matter of care-ful attendance.

REFERENCES

Allhutter D (2012) Mind Scripting. *Science, Technology, & Human Values* 37(6): 684–707.

Ashmore M (1996) Ending Up On the Wrong Side: Must the Two Forms of Radicalism Always Be at War? *Social Studies of Science* 26(2): 305–322.

Bieler P, Bister MD, Hauer J, et al. (2021) Distributing Reflexivity through Co-laborative Ethnography. *Journal of Contemporary Ethnography* 50(1): 1–22.

Collins HM (1996) In Praise of futile Gestures: How Scientific is the Sociology of Scientiifc Knowledge? *Social Studies of Science* 26(2): 229–244.

Doing STS in and through Germany (2023) Keep the #MeTooSTS / #WeDoSTS conversation going | Announcement. Available at: https://stsing.org/keep-the-metoosts-wedosts-conversation-going-announcement (accessed 11 May 2023).

Felt U, Barben D, Irwin A, et al. (2013) *Science in Society: caring for our futures in turbulent times*. Science Policy Briefing 50.

Horst M President of EASST (2022) Making STS better. Available at: https://www.easst.net/article/making-sts-better/ (accessed 6 May 2023).

Irwin A (2006) The Politics of Talk. *Social Studies of Science* 36(2): 299–320.

Jasanoff S (1996) Beyond Epistemology: Relativism and Engagement in the Politics of Science. *Social Studies of Science* 26(2): 393–418.

Jerak-Zuiderent S (2015) Accountability from Somewhere and for Someone: Relating with Care. *Science as Culture* 24(4): 412–435.

Mol A and Mesman J (1996) Neonatal Food and the Politics of Theory: Some Questions of Method. *Social Studies of Science* 26(2): 419–444.

Moore K (1996) Organizing Integrity: American Science and the Creation of Public Interest Organizations, 1955-1975. *American Journal of Sociology* 101(6): 1592–1627.

Niewöhner J (2016) Co-laborative anthropology: Crafting reflexivities experimentally. Etnologinen tulkinta ja analyysi: Kohti avoimempaa tutkimusprosessia [Ethnological interpretation and analysis: Towards a transparent research process]. *Ethnos*.

Northern Netherlands District Court (2023) *Permanently disrupted employment relationship, causal link critical article and request for dissolution does not mean an aggravated redeployment obligation, redeployment is not an obligation of result: 10244518 AR VERZ 22-92*. Available at: https://uitspraken.rechtspraak.nl/#!/details?id=ECLI:NL:RBNNE:2023:854.

Pearce W (2022) It takes work: Building reasonable research cultures in STS. Available at: https://socstudiesresearch.com/2022/11/16/it-takes-work-building-reasonable-research-cultures-in-sts/.

Schwarz-Plaschg CG (2022) On its 20th anniversary, my testimonial on the Harvard STS Program. *Medium*, 4 November.

Science in Public Research Network (2022) Building better research cultures that prevent harassment and bullying. Available at: https://scienceinpublic.org/2022/12/06/building-better-research-cultures-that-prevent-harassment-and-bullying/ (accessed 11 May 2023).

Shapin S (1995) Cordelia's Love: Credibility and the Social Studies of Science. *Perspectives on Science* 3(3): 255–275.

Singleton V (1996) Feminism, Sociology of Scientific Knowledge and Postmodernism. *Social Studies of Science* 26(2): 445–468.

Star SL (1990) Power, technology and the phenomenology of conventions: on being allergic to onions. *The Sociological Review* 38(S1): 26–56.

Suzuki W (2017) Towards an Ecology of Cells: An Ethnography of iPS Cell Research and Regenerative Medicine. Unpublished dissertation manuscript, Osaka University.

WeDoSTS_Vienna (2022) @ViennaWedosts: "Dear @PsychedelicSTS, @STS_News, STS Harvard students, and STS community, we want to express our solidarity with those who have spoken about their experiences at the Harvard STS program. We feel shocked, disappointed, angry and upset when reading your texts. (thread)". Available at: https://twitter.com/ViennaWedosts/status/1591078851362557952.

WeDoSTS_Vienna (2023) @ViennaWedosts: "1/14 After our first post in November, it has been a bit quiet on this channel. But that doesn't mean that the discussion sparked by @PsychedelicSTS, @STS_News and others has ended: (thread)". Available at: https://twitter.com/ViennaWedosts/status/1655861030130442240 (accessed 11 May 2023).

Picture credit: Technical University Munich

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Being, doing, and using STS in Germany? Reflections on identity questions, normative commitments, and conceptual work after STS-hub.de 2023

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In recent years, we have observed the emergence of a vibrant group of researchers strongly linked to or affiliated with German institutions who associate their work with STS (Niewöhner 2018; Mewes 2019). Nevertheless, discussions of STS in Germany tend to be characterized by narratives of precarity, fragmentation, and fluidity. These narratives go beyond precarious working conditions in the German academic system−−for example, the centralization of power in the hierarchical organization of university chairs, the national legal system limiting the time researchers can spend on PhD and postdoctoral research, and the structural underfunding of administrative and infrastructural support at German universities (Lippert et al. 2021; Hölscher 2023). They also highlight institutional impasses that are specific to STS, in particular the growing but fragmented STS landscape in Germany. Although there are STS-oriented research groups and study programs at the Technical University of Munich, the Humboldt University Berlin, the Goethe University Frankfurt and other German STS locations, STS researchers often work within the institutional homes of specific disciplines. In this context "many STS-minded scholars – especially early career scholars – are sitting in disciplined departments and struggle to find interlocutors for those matters of concern that exceed the established thought styles that surround them" (Niewöhner et al. 2021, 13). The disciplinary organization of German universities and the disciplinary funding schemes make it difficult for STS scholars to 'fit in' and to establish a scholarly identity in STS. To support academic socialization and community building for STS in Germany, a number of networks and associations, such as the German Society of Science and Technology Studies (GWTF), the Interdisciplinary Network for Studies Investigating Science and Technology (INSIST), and stsing e.V., organize regular opportunities for their members to meet up. Interactions among these networks and associations are usually not formally structured, depending on the initiative of individuals.

STS-hub.de 2023 was an attempt to create an inclusive format for networks, associations, and individual scholars working at or related to German institutions to come together, exchange ideas, and interconnect. The vision behind the hub was twofold: to create or strengthen connections among STS scholars, groups, and activities, and to build bridges between those who primarily identify as STS researchers and scholars who feel more strongly rooted in academic disciplines, such as anthropology, geography, history, philosophy, and sociology, or fields like gender studies, media studies, and postcolonial studies. Alongside the exploration of shared interests and potential collaborations within and beyond STS, the hub sought to open up opportunities for discussing the conditions of research and education, especially in light of recent instances of sexual harassment and power abuse (#MeTooSTS, #WeDoSTS), unjust labour relations (#IchBinHanna, #IAmReyhan), and the pressures induced by the new public management regime in academia. Finally, the STS-hub format could increase the visibility of existing German STS locations. Taking place in a bi-annual rhythm in-between EASST conference years, the hub could travel across Germany to host institutions which would like to showcase their local research interests and specific approaches to STS.

1 STS-hub.de 2023 was organized by a steering and managing committee as well as a local organizing committee. The *steering and managing committee* consisted of Ingmar Lippert (chair) and, alphabetically ordered, Stefan Böschen, Paula Helm, Jan-Felix Schrape, Cornelius Schubert, Mareike Smolka, Jan-Peter Voß, and Lisa Wiedemann; it was *supported* by Sandra Abels; and the *local organizing committee* consisted of Stefan Böschen (chair) and, alphabetically ordered, Sonja Berg, Lilia Bolz, Ana de la Varga, Lennart Göpfert & the Leonardo team, Stefan John, Sally Römgens, and Mareike Smolka.

2 The survey on STS-hub.de 2023 can be accessed on www.sts-hub.de.

After two years of planning and organizational work, the first edition of STS-hub.de took place from March 15–17, 2023, at RWTH Aachen University.[1] The size of the event exceeded the expectations of the organizers: among 392 registered participants, 303 participants attended the event. A feedback survey with 126 respondents indicates that it attracted not only researchers from Germany, but also from different European countries, Israel, South Africa, Brazil, and the United States.[2] More than 70% of survey respondents were PhD and Postdoctoral researchers. As participation in the hub was free of charge, the event was inclusive of researchers at different career stages and accessible to those with few funding opportunities for conferences. Such an inclusive event was made possible by the financial support of the Käte Hamburger Kolleg Aachen and the Human Technology Center at RWTH Aachen University. Moreover, the way in which the format of the hub had been developed and organized supported the guiding visions of inclusivity and connectivity. The steering and management committee consisted of a group of researchers dispersed across and beyond Germany. Members of the committee launched calls for participation within their academic networks to co-create a program on the theme of *circulations* with 57 panel sessions, 133 presentations, a PhD bootcamp, a discussion on good academic practices, creative formats like walkshops and drawing sessions, regional network meetings, and keynote lectures by Ulrike Felt and Susann Wagenknecht.

In light of the numerous research projects presented at the hub and the impressively high number of participants, Estrid Sørensen, a member of the stsing e.V. board, proposed at the General Assembly of the association in May 2023 that STS in Germany should reflect on its narratives of precarity. According to Sørensen, STS-hub.de 2023 had shown that STS in Germany ceased to be marked by marginalization; there existed a strong STS community. In his welcoming lecture at the opening of the hub, Torsten Voigt offered a heuristic for characterizing the STS community at RWTH Aachen University, where he serves as the dean of the Faculty of Arts and Humanities. The heuristic includes three types of STS researchers: those *using STS* theories and methods to study objects other than science and technology, those *doing STS* by studying science and technology from the perspective of a traditional discipline, and those *being STS* who draw on STS theories and methods to study science and technology. Although an STS-derived response to such a heuristic would be to criticize the boundary work that such categories can perform for exclusionary and other instrumental purposes, the heuristic can also stimulate reflections on questions of identity and belonging, normative commitments and responsibilities, as well as epistemic quality standards.

Such reflections were captured in the afterthoughts written by four STS-hub attendees. Philipp Neudert and Cindy Rentrop observed identity questions resurfacing throughout the hub and revolving around the societal responsibility of STS scholars to inform research, development, and policy-making. For Carla Greubel, the hub was an opportunity to interrogate the epistemic standards of good STS research. To avoid the proliferation of vague concepts, she let herself be inspired by observations of fine-grained conceptual work at the hub. Lastly, Maximilian Braun applied a normative lens to the conditions of STS research in Germany, questioning the kinds of structures, institutions, and relationships we aspire to work within. In sharing these reflections, this essay foregrounds what an event like STS-hub.de 2023 can do for academic socialization, identity formation, and community building in national STS contexts.

Identity issues in STS: Who are 'we' as 'the' 'STS community,' and why do we care so much? (Philipp Neudert)

When an *Imagined Community* (Anderson 1991) like the STS community in German-speaking countries is, on occasion, gathered in a single place, an inevitable theme is its (supposedly) shared group identity. Who are 'we' as 'the' STS community? Who are 'we' as STS scholars with different disciplinary backgrounds and at different career levels? What could our 'agenda' be?

The (imagined?) STS-community at STS-hub.de 2023 in Aachen.
© Lennart Göpfert

Whereas some scholars celebrate the ubiquity of such questions as an expression of reflexivity, many others tend to be annoyed and disregard them as navel-gazing. A welcome guest or not, the discussion keeps on popping up unexpectedly on a regular basis. But why do we, in spite of being annoyed by it, seem to care so much about who we are?

In the panel *Politics, Crisis, and the Contested Role of Science and Technology*, for example, the identity question surfaced unexpectedly. The panel was dedicated to the epistemic and normative role of science and technology in times of 'crisis' with regards to 'societal challenges' and how they come to be framed as such in the first place. Filippo Reale made the argument that, under conditions of urgency, the circulation of non-redundant knowledge tends to be inhibited and patterns of epistemic authority (re)stabilized. The panelists discussed quantitative virological models (Hälterlein 2023) as an example for such a de-contextualization, which eases the over-interpretation and even abuse of scientific knowledge to legitimize far-reaching policy decisions. These observations led to a cautious consensus that STS might have a role to play in informing the public debate in which knowledge is circulated, particularly in times of crisis. During crisis, it is often the case that decisions need be taken quickly, the public demand for reliability is high, and 'expertise' is addressed to meet these demands.

At this point of the panel, identity issues had become impossible to ignore. The discussion turned into a self-inquiry of STS and its assumed (productive, critical, reflexive, or other) capacity to inform or change policy-making, running up against sticky imaginaries and power structures. What should or could 'we' have done to 'improve' the crisis management during Covid? How could STS come closer to policymaking––and should it, really?

What such discussions demonstrate is that there is widespread vexation with the current state of affairs, in particular: how easy it seems to be for policymakers to ignore STS insights altogether and get away with it. Even though there is nothing close to a consensus on what should be changed, the perceived need to try out something different is overwhelming.

Maybe one of the reasons why the identity issues keep on coming back is that they point to a deeper problem: that it is still unclear what should happen to the (seeming) implications of STS insights for policy (or similarly entrenched domains like corporate governance) if the relevant decision-makers do not, by chance, begin to study STS journals and adopt what they consider as important insights.

As STS scholars are increasingly embedded in multidisciplinary research projects, the question of 'what we're all about' will be asked more frequently rather than disappear. The contribution by Paula Helm and Joakim Juhl took this increasingly projectified 'embeddedness' as a point of departure to argue that an 'ethics of engagement' is needed to deal with the various, often conflicting expectations and interests with which embedded STS researchers are confronted. They warned, first, against broad normative commitments (e.g., to 'democracy' or 'diversity') that almost everyone can agree to precisely because of their vagueness and, second, against implicit, veiled normativity. Such normativity, they argued, could be misused too easily, for instance for manipulation or lobbying. By contrast, they recommend a form of 'strong normativity,' i.e. a normativity that abandons the idea of *neutrality* (vis-à-vis universal agreeability), spells out its assumptions and normative commitments, and, in this way, makes them vulnerable to critique.

For example: Instead of committing to the vague project of democratizing science and technology development (and then mostly complaining about why it is unviable), we should be able to give a more precise account of what a democratized research project (or research system, university, or innovation culture) looks like and why we think it should be valued. To this end, we must bridge the gap between STS and ethics, as Helm and Juhl argued. This might as well apply to other domains of philosophy (e.g., democratic theory or political philosophy), and to other disciplines (e.g., institutional or organizational theory). Therefore, the question lurking behind the identity issues is not so much what STS is, but what it is in relation to what (policy, neighboring disciplines), how the gap between STS and these various others can be bridged, and how STS can enrich and must, at times, challenge them.

Dialogues, monologues, discussions and debates on the construction of identity (Cindy Rentrop)

What does it mean to do STS? This question emerged repeatedly in conversations, debates and panels at STS-hub.de in Aachen in March 2023. Three days of repeating questions and repeating answers on the identity of STS seemed to circulate through the hub, indicating an aspiration to construct an identity that characterizes our scholarly purpose epistemologically, conceptually, and disciplinarily.

Young PhD scholars from across Europe long for guidance throughout their academic process, but questioning the institutional makeup of STS during a PhD bootcamp organized by INSIST added an extra layer: While PhDs in STS regularly face isolation within their projects, for some isolated institutional settings are also an everyday experience. Therefore, the joy of meeting like-minded scholars was even greater. In analogue breakout rooms, scholars discussed foundational topics on disciplinary identity and boundaries, inter- and transdisciplinary work as well as publication strategies and teaching. By summarizing all of these topics within the plenary, an atmosphere of lostness emerged: What are we? Who are we? Whom do we want to address? What is our contribution in this world?

The debate between the High and the Low Church of STS, in which the former is concerned with the academic conceptual description and interpretation of science and technology, while the latter works towards an approach that focuses on

the public's integration into science and technology for a greater societal benefit, became apparent in the panel on *Politics, Crisis, and the Contested Role of Science and Technology*, where the question on the engagement of STS played a central role (Sismondo 2008). While we heard insightful contributions on disparate topics (the circulation of models and simulations in pandemic politics, the role of science in Swiss regulatory legacies, the circulation of knowledge under the notion of urgency, the circulation of expertise for regional innovation as well as the uptake of sociotechnical imaginaries on circular economy, to name but a few examples), the panel moderator tried to link the different contributions through a set of questions. The discussion shifted back in focus to our identity as STS scholars in engagement research: What is our role as STS scholars? How should we act in this economically driven world? While some argued for a High Church approach, others emphasized STS' productive integration in interdisciplinary research projects and democratic governance processes. However, calls for integration, at times, remained silent on the practical feasibility of and potential obstacles to such interdisciplinary research. It was also left as an open question of how to deal with the re-interpretation of our concepts and ideas being applied in public settings (Wynne 2007, 501).

The contextual gap between young and established scholars became apparent in informal and formal settings, as the notion of identity mostly left young scholars trouble-hearted, while established researchers demonstrated integrity and courage in keynotes and panels such as Experimental Democracy. The presentation of distinctive topics proved STS' strong, resilient epistemological and methodological grounding. Concepts must not mutually exclude but can fertilize each other. By recognizing the existing diversity, scholarly identity can be strengthened rather than unsettled.

STS-hub Panel on Experimental Democracy organized by Jan-Peter Voß and Stefan Böschen. © Noushin Gheibi

What did I take away from three days of encountering diverse perspectives? STS is distinctive in its own right as it brings together not only manifold ontologies and methodologies but also representatives all across Europe who work in institutionalized or project-based settings. While longing for a shared concept of STS engagement to make a difference in this world, it could deprive us of our normative core to critically reflect upon contextualization. As our perspectives as scholars are co-produced by the contexts in which we are engaged, we all do engagement differently. Fewer questions on identity might give us more space to appreciate and discuss each other's work in respect and solidarity. The STS-hub insistently underlined that our soft spot is also a sweet spot: rigid identities can lead to inertia, but we are *on the move*.

STS-hub voices on futures of STS: "Let's keep up the inspiring, fine-grained conceptual work!" (Carla Greubel)

In my experience, writing a conference abstract and preparing one's presentation always involves a form of localization work, of making the piece fit to the theme and local context of that specific conference. Reading the program of the STS-hub in Aachen, this localization work seemed to have worked exceptionally well this time: *circulations* was the title and theme of the hub. The word circulation(s) or circulating appeared 538 times in the STS-hub program. In the first slot of parallel sessions alone, 6 out of 10 panels had circulation(s) or circulating included in the title of their panel, for example "circulations ergonomics," "waste in circulation," "circulating practices," "circulating imaginaries," and "circulating expertise." The panel to which I contributed during the second day of the STS-hub added yet another object of circulation: values. *Circulating Values: From What is 'Good' Somewhere to What is 'Best' Elsewhere and Back Again*, organized by Mareike Smolka, Maximilian Braun and Ruth Falkenberg.

The title and questions of this panel were inspired by a panel during the EASST conference in Madrid on *Closing the Loop of Empirical Ethics: Away from Normativity and Critique and Back Again* (Sharon et al. 2022). Whereas the panel in Madrid asked *whether* empirical ethics should be more political and, if so, *what* empirical ethics scholars might do to close the loop of empirical ethics, the focus in Aachen was on how values travel with researchers and how these values adapt and are adapted to local practices, subjectivities or institutions. Different angles, but overlapping interests and also overlapping panelists (both Maximilian Braun and myself presented in Madrid as well as in Aachen). My presentation at the STS-hub was a follow-up version of the research that I had presented during the EASST conference in Madrid. At EASST, I presented reflections on whether and how *STS making & doing* might be an inspiration for closing the loop of empirical ethics. By the time of the STS-hub in Aachen, I had (almost) finalized my STS making & doing project with a big technology company involved in a disease prevention pilot for older adults living in the south of Italy and could therefore draw on empirical material to reflect on my proposition. What else had changed between EASST and the hub? I had invested in localization work. I had included the word "circulations" and "circulating" in my presentation text, to adapt my contribution to the theme of the hub and the questions of the panel——just as the many other presentations and panels that had twisted their abstracts and headings in such a way that the connection to *circulations* as the conference theme would be apparent.

It was a moment of realization, and almost like catching myself, when Susann Wagenknecht in her keynote pointed out that "circulations" has been used as a rather fuzzy concept throughout the STS-hub presentations and discussions. To me she seemed to have a point. Throughout the first two conference days I had heard and read the word circulations many times, but what exactly was meant with it, and how exactly it could relate to other notions like 'translation' or 'fluidity,' was still unclear to me. Susann Wagenknecht asked in her keynote what a stronger notion of circulation might be, and presented three ideas. What struck me in particular about her keynote speech was the depth of her conceptual work. Since that moment at the STS-hub, I have been coming back to the question of how I myself engage in in-depth conceptual work in my own dissertation? What concepts do I use without (yet) having really thought about them from different angles? And where can my empirical material provoke new reflections on these concepts?

In the room next to coffee and refreshments, there was a paper wall that read in big letters: "Which futures of STS should stsing e.V. promote?" "[D]on't turn STS into a discipline" was the answer of one hub-participant. In afterthought of the conference, I now would add "keep up the inspiring, fine-grained conceptual work." Or, as the organizers of a panel on "epistemic dizziness" put it, drawing on the work of Anna Tsing, "it is important not to let the metaphors and figures make you dizzy" (Tsing 2018, quoted in the program of STS-hub.de 2023, 117).[3]

3 The program of STS-hub.de 2023 can be accessed on www.sts-hub.de.
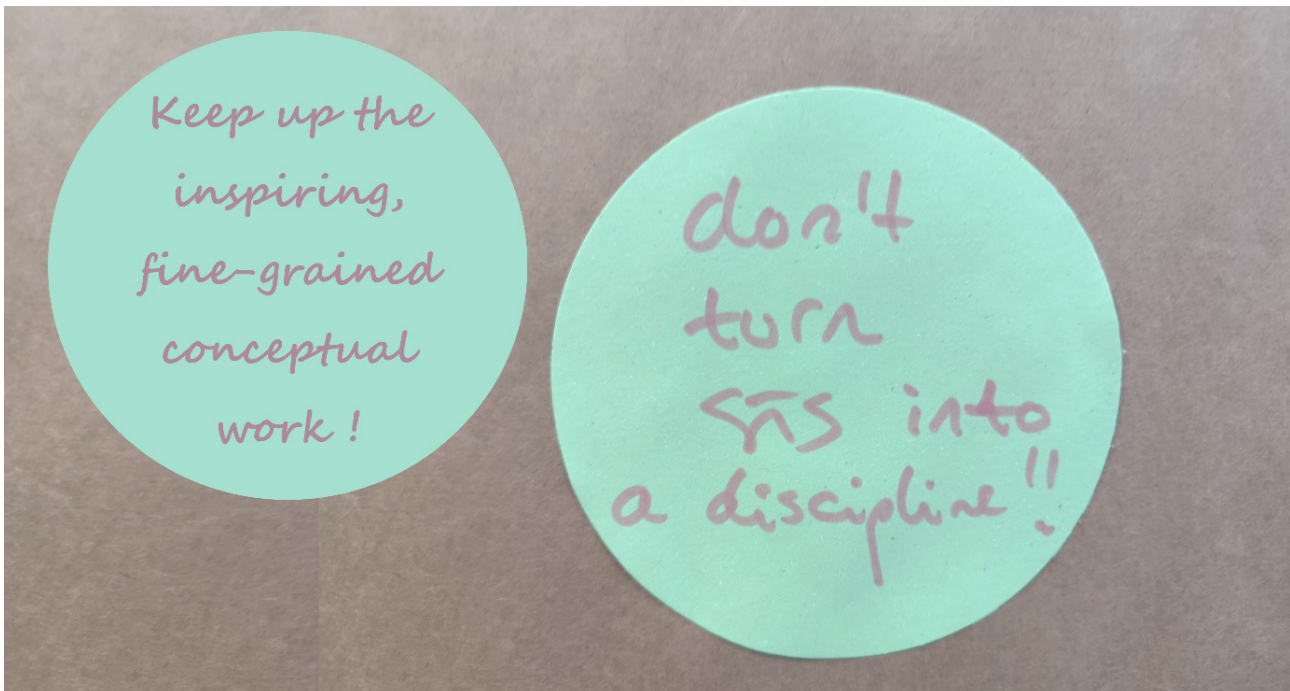
Edited photo of the paper wall "which futures of STS should stsing e.V. promote?" © Carla Greubel

Open doors for STS in German academia? (Maximilian Braun)

Almost like a class outing. That's what traveling to the STS-Hub in Aachen with my colleagues from the Technical University of Munich (TUM) felt like. Around 20 researchers currently affiliated with TUM attended the conference event at the RWTH, another German technical university where STS thinking seems to be increasingly preaching to the choir. However, not only the number of TUM colleagues, but also the number of contributions from other German universities to the hub impressed me: STS seems to be riding the crest of a wave!

My more sober self, however, reminded me that this impression could be a delusion given the short period of time I can consider myself as being part of the STS community. I am at best a latecomer to the social sciences, unable to account for the intricate history that STS has in the German-speaking academic world. Still, for the last 4 ½ years, I found myself in the middle of a process of growing recognition for STS thinking, ideas, and concepts at one of the largest universities in Germany.

TUM has actively supported STS research for about a decade now and founded the first explicitly-labeled 'STS Department' in German academia in 2021. I met many fascinating and inspiring people with whom I contributed to this department's ongoing institutionalization through administration work, teaching, and intramural research collaborations. Being part of these efforts rewarded me with many wonderful relationships, be it with students, academic staff, scientists, or––first and foremost––my colleagues at the Science and Technology Policy professorship, which turned TUM into more than just a professional home.

At the STS-hub, I experienced similar vibes. The organizers succeeded in creating a sense of community for STS research in German academia while keeping in touch with the international STS discourses. With this in mind, I found the theme of *circulations* to be spot-on and a good anchor for the many conversations with other STS researchers during these three days: Besides discussing internationally-circulating STS concepts and ideas in numerous panels and contributions, we also circulated our own, personal experiences of living and working in German academia and our stories of what it means to pursue a career in German STS, be it at the conference venue or in the cozy bars and cafés in the beautiful inner city of Aachen.

One instance of such circulations emerged in the panel *Circulating Values* that Mareike Smolka, Ruth Falkenberg and I had organized. We had invited other STS scholars to share investigations into the circulation of values in science from a practice-oriented perspective. The panelists shared insights into how researchers value research objects, standards, practices, and outcomes, and how these valuations travel or differ across space, time, and research contexts. Helene Sorgner, for instance, elaborated on a set of recognition practices that govern how epistemic capital can be distributed in the highly collectivized research context of high-energy physics. And in the case of clinical dermatology research, Theresa Willem pointed us to the lasting popularity of machine learning and how it shapes the careers of computer scientists and medical researchers alike.

What all panel contributions had in common were underlying normative concerns, as our discussant Sara Davies highlighted. Is it right that researchers have to blindly follow the motto to "be enthusiastic and work a lot" to become recognized as peers by other researchers? Should we, as STS scholars, intervene if computer scientists in clinical research are told to have "no time for ethics?"

While these questions emerged as concerns in the panelists' respective research contexts, the STS-hub managed to hold a mirror up to us STS researchers and direct some of these questions at ourselves: What values are important to us? How do we want them to shape German academia? What structures, institutions, and relationships do we want for our own careers? Providing time and space to discuss such questions with the assembled community was, for me, the greatest merit of the hub. This is all the more important because a significant portion of the German academic staff is currently asking themselves a question that Ulrike Felt borrowed from an old song by The Clash in her keynote: "Should I Stay or Should I Go?" I hope that the doors will continue to open for STS in German academia, with ongoing discussions on how to shape the spaces and futures of the people who work behind them.

More open doors for STS in German academia? The entrance door to the STS Department at the TUM School of Social Sciences and Technology in Munich (left, © Maximilian Braun) and the C.A.R.L. at the RWTH Aachen, the venue of the first STS-Hub.de (right, © Mareike Smolka)

References

Anderson, Benedict. 1991. *Imagined Communities: Reflections on the origin and spread of nationalism*, revised ed. London: Verso.

Hälterlein, Jens. 2023. "Agent-based modeling and simulation in pandemic management." *TATuP – Zeitschrift für Technikfolgenabschätzung in Theorie und Praxis* 32(1): 30–35. https://doi.org/10.14512/tatup.32.1.30.

Hölscher, Michael. 2023. "Wissenschaft und Verwaltung." Frühjahrstagung der Sektion Wissenschafts- und Technikforschung der Deutschen Gesellschaft für Soziologie, May 4–5, Technical University Dortmund.

Lippert, Ingmar, Julia Sascia Mewes, Paula Helm, Stefan Laser, Estrid Sørensen, and Laura Kocksch. 2021. "stsing. Doing STS in, through, and beyond the German Academic System." Working paper, October 5.

Mewes, Julie Sascia. 2019. "Report: 'Stsing' – Towards inclusive forms of STS-in-Germany." *EASST review* 38(2): 35–37. Accessed on May 13, 2023. https://easst.net/article/report-stsing-towards-inclusive-forms-of-sts-in-germany/

Niewöhner, Jörg. 2018. "STS in Germany: Ve vill go on!" Accessed on May 13, 2023. https://stsing.org/about.

Niewöhner Jörg, Estrid Sørensen, and Tanja Bogusz. 2021. "The Cosmology of stsing." *EASST review* 40(2): 13–15. Accessed on May 16, 2023. https://www.easst.net/article/the-cosmology-of-stsing/

Sharon, Tamar, Marthe Stevens, Andrew Hoffman, and Lotje Siffels. 2022. "Closing the loop of empirical ethics: away from normativity and critique and back again." EASST conference, July 6–9.

Sismondo, Sergio. 2008. "Science and Technology Studies and an Engaged Program." In *The Handbook of Science and Technology Studies*, 3rd ed., edited by Edward J. Hackett, Olga Amsterdamska, Michael E. Lynch, and Judy Wajcman, 13–32. Cambridge: The MIT Press.

Wynne, Brian. 2007. "Dazzled by the Mirage of Influence?: STS-SSK in Multivalent Registers of Relevance." *Science, Technology, & Human Values* 32(4): 491–503. https://doi.org/10.1177/01622439073.

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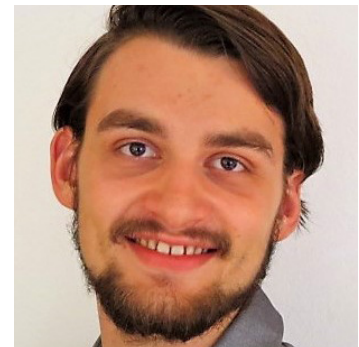
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Wolfgang Kaltenbrunner, Ludo Waltman, Adrian Barnett, Jennifer Byrne, Jason M Chin, Alex Holcombe, Stephen Pinfield, Simine Vazire, James Wilsdon

Science and technology studies (STS) is an interdisciplinary field where multiple forms of scholarly publishing coexist. On one hand, there is a range of established scholarly journals. Think of venues like: *Science, Technology, & Human Values (ST&HV); Catalyst; Social Studies of Science; Public Understanding of Science; Social Epistemology; Biosocieties or Science as Culture*. These use single- or double-anonymous pre-publication peer review. Most are operated by a large corporate publisher (in particular Taylor & Francis and SAGE). Some of these journals, such as *ST&HV, Catalyst and Science & Technology Studies*, rely on the use of an editorial collective where editorial responsibilities are distributed, and other journals have begun to move in the same direction.

Two large STS societies now offer their own fully Open Access (OA) journals: *Engaging Science, Technology, and Society* (4S) and *Science & Technology Studies* (EASST). Monograph publishing also continues to play an important role in STS. Mattering Press and Meson Press have trail-blazed OA book publishing, creating open alternatives to the traditional, internationally-prestigious university presses.

Cʜᴀʟʟᴇɴɢᴇs ɪɴ sᴄʜᴏʟᴀʀʟʏ ᴄᴏᴍᴍᴜɴɪᴄᴀᴛɪᴏɴ ɪɴ STS

While the STS publishing landscape is clearly diverse and heterogeneous in terms of its formats, publishing workflows, and commercial structure, it still faces several broad challenges:

- **Limited accessibility of the literature.** With the exception of the OA journals and some OA book publishers, like Meson press and Mattering Press, readers of STS literature usually need to pay to read the literature. Those unable to pay do not have full access to the literature. Conversely, the model of funding OA publications through article processing charges limits the ability of STS scholars to have their work published in certain journals, especially where authors don't have access to institutional funds or OA publishing subsidies.

- **Lack of community ownership.** Many important journals in our field are (co-)owned by commercial publishers, constraining the freedom we have to decide ourselves how we organize our publication practices.

- **Pressure on peer review.** Peer review is a vital community service, but also a kind of invisible work that often goes unacknowledged by employers and institutions. It is increasingly difficult for journal editors to recruit expert reviewers in a timely fashion, thus delaying the communication of scholarly work.

- **Limited openness in our research practices.** Much research is shared only in its final state, typically as an article published in a journal. There appears to be no outlet or platform in STS that offers the possibility of publishing peer review reports alongside papers, and with the exception of the *Platform for Experimental Collaborative Ethnography*, there are no STS-dedicated places to share the empirical materials on which scholarship is based. Preprint publishing - a practice where an article is

published before peer review on a preprint server or in an institutional repository - is similarly uncommon, despite its very rapid growth in the sciences and endorsement by public research funders.

- **Little dialogue with fields with different epistemic commitments**. While STS is already interdisciplinary in that that it *inter alia* spans anthropology, sociology, feminist science studies, activist work, and making & doing, we think it would benefit from more interaction with fields such as the history of science, quantitative science studies, and philosophy of science.

Many researchers in STS are intimately familiar with the above challenges, not only from practical experience but also since much of our intellectual work involves taking a reflexive stance on (co-)creating and communicating knowledge - frequently with special attention to mechanisms of exclusion and monopolization. Doesn't this also mean that STS has a special responsibility to develop and test innovative ways to address these challenges?

Recent events such as the *STS Publishing Futures* session in New Orleans in 2019 (4S), a plenary on *The future and politics of STS in Europe* in Madrid in 2022 (EASST), and a session organized by the editorial collective of *Engaging Science, Technology, and Society* in Cholula in 2022 (4S) certainly suggest a willingness to rethink STS publishing practices and experiment with new approaches.

Innovating scholarly communication in STS and beyond

To address the above challenges, we – a group of researchers from STS, quantitative science studies and metaresearch – are developing what we feel is an innovative approach to scholarly communication. We call this new initiative MetaROR (MetaResearch Open Review). While MetaROR remains a concept at this stage, some of its key features can already be outlined:

- MetaROR will not be a traditional scholarly journal. It will be a platform that operates according to a publish-review-curate model. This model is getting increasingly popular, especially in the life sciences, where it is used by journals such as *eLife* and *F1000 Research*.

- In MetaROR's publish-review-curate model, researchers will first publish their work on a preprint server such as *MetaArXiv, SocArXiv* or *OSF Preprints* and then submit it to MetaROR. Submissions will be handled by MetaROR editors, who will first perform a basic screening and then assign reviewers on the basis of their fit with a submission in terms of epistemic outlook. The role of a MetaROR editor is a form of voluntary communal service and will be advertised on a rolling basis on the platform website. Review reports and optionally reviewer identities will be published on the MetaROR platform and will be linked to the article published on the preprint server. Based on the peer review outcomes, MetaROR will publish an editorial assessment consisting, for instance, of a short summary, contextualization, and brief discussion of review reports. This is the "curate" facet of publish-review-curate models.

- Research reviewed and curated by MetaROR can still be published in traditional scholarly journals. To streamline this process, MetaROR aims to develop partnerships with journals in the broad area of STS and adjacent fields of metaresearch. This is similar to the way in which platforms such as Review Commons and Peer Community In are partnering with academic journals.

- MetaROR's publish-review-curate model will accelerate the communication of scholarly work, since peer review will take place after publication rather than before. The model is also expected to reduce the pressure on peer review, since reviews will be used more efficiently. Should authors of an accepted paper choose to submit their work to a journal later on, they can include the reviews that have already been performed for MetaROR. And since reviews will be openly available, there will be more recognition for the efforts of reviewers than is usually the case (making it more attractive for researchers to perform peer review).

- MetaROR aims to serve all research communities in STS and adjacent fields that show interest in experimenting with new approaches to scholarly communication. MetaROR aims to stimulate interaction between different research communities, while also recognizing the value of community-specific norms and research practices. In addition, MetaROR aims to promote the translation of research outcomes to insights that are of direct practical use, for instance for STS scholars involved in community building work and inter- and transdisciplinary research.

- MetaROR will be owned by the academic community of researchers doing research on science, technology, and knowledge making. We expect to work together with one or more technology providers, but they will not own the platform. Instead, we envision MetaROR to be community-owned.

We hope to launch MetaROR in the second half of 2023. To kick off the platform and stimulate engagement in STS and other communities, we plan to launch a call for a themed collection of papers around the topic of "metaresearch". Our ambition is to stimulate a dialogue among members of different research communities (STS, anthropology, scientometrics, activist writing, science & innovation studies etc.) on this emerging term, its conceptual underpinnings and shortcomings, its relation to existing intellectual formations like STS, and the opportunities it may provide by connecting to broader audiences. More details on this call will be published in the EASST Review closer to the launch of MetaROR.

To turn MetaROR into a genuine community-driven initiative, we hope to further expand and diversify the core team of MetaROR. We invite colleagues in STS that are interested in contributing to the development and implementation of MetaROR to reach out to us.

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Jennifer Byrne is director of Biobank with New South Wales Health Pathology and professor of molecular oncology at the University of Sydney, Australia.

Jason M. Chin is a senior lecturer in evidence law at the Australian National University and is the past president of the Association for Interdisciplinary Metaresearch and Open Science (AIMOS).

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Cherish, not Perish

Introducing the CWTS knowledge agenda 2023-2028

Sarah de Rijcke, Ludo Waltman and Ed Noyons - May 09, 2023

The Journal Observatory - Connecting information on scholarly communication

As scholarly communication is getting more diverse and transparent, there is an increasing need for reliable information on platforms' policies. The Journal Observatory project aims to connect existing data and build toward systematic high-quality information on scholarly communication platforms.

Bram van den Boomen, Nees Jan van Eck, Ludo Waltman, Tony Ross-Hellauer and Serge Horbach - May 01, 2023

Industry involved in research: The case of Latin America and the Caribbean

Collaborations between industry and research institutions are a common phenomenon in science. But what does the situation look like in Latin America and the Caribbean? In a recent study, our author took a closer look and identified central as well as less prominent research areas.

Julián D. Cortés - April 13, 2023

Open Science Knowledge Platform: A Journey to a Dynamic Resource

In 2022, CWTS held a series of open science seminars together with the Research Councils of The Netherlands (NWO) and Norway (RCN). Now, all resources from the seminars are available on a new Open Science Knowledge Platform. This blogpost reflects on building this platform and next steps to come.

André Brasil - March 16, 2023

Leiden Madtrics

Leiden Madtrics is the science blog of CWTS, the Centre for Science and Technology Studies at Leiden University in the Netherlands. CWTS is an interdisciplinary research institute that studies the research system and its connections to society, and offers support for research assessment and science policy.

What was the need for this publication project?

In 2018, CWTS ran an internal project to reflect on its impact and outreach. This project entailed a series of workshops to explore different skills and approaches to impact. One of the last workshops that were part of this project was on the topic of blogging. Jeremy Burman, who held the workshop, made a very convincing case for operating a science blog. Back then, CWTS was already running a blog on its website. This old version did not, however, represent the kind of lively, accessible blog that Burman made us enthusiastic about. On top of that, posts were published rather infrequently and did not come with a transparent review process either. It was clear – this required a complete restart.

At the end of October 2019, we launched Leiden Madtrics, a blog for "metrics and matter that matters". This new version had to fulfil numerous expectations: it should be a platform to show the different aspects of work at a scientific institute like ours, such as research, project coordination, social life, consultancy, or advocacy. But we also wanted the blog to be equally appealing to academic and non-academic audiences and to be a means to connect with our community at large. Since its relaunch, the renewed blog has continuously operated with this mission in mind.

How has it changed throughout time?

Over the years, there have been two major forces affecting the blog: the editors' way of work, and the contributions by our authors. Originally, we had started with a rather sophisticated editorial process that defined in very detailed steps how a new submission should be handled. Figure 1 gives an impression of that.
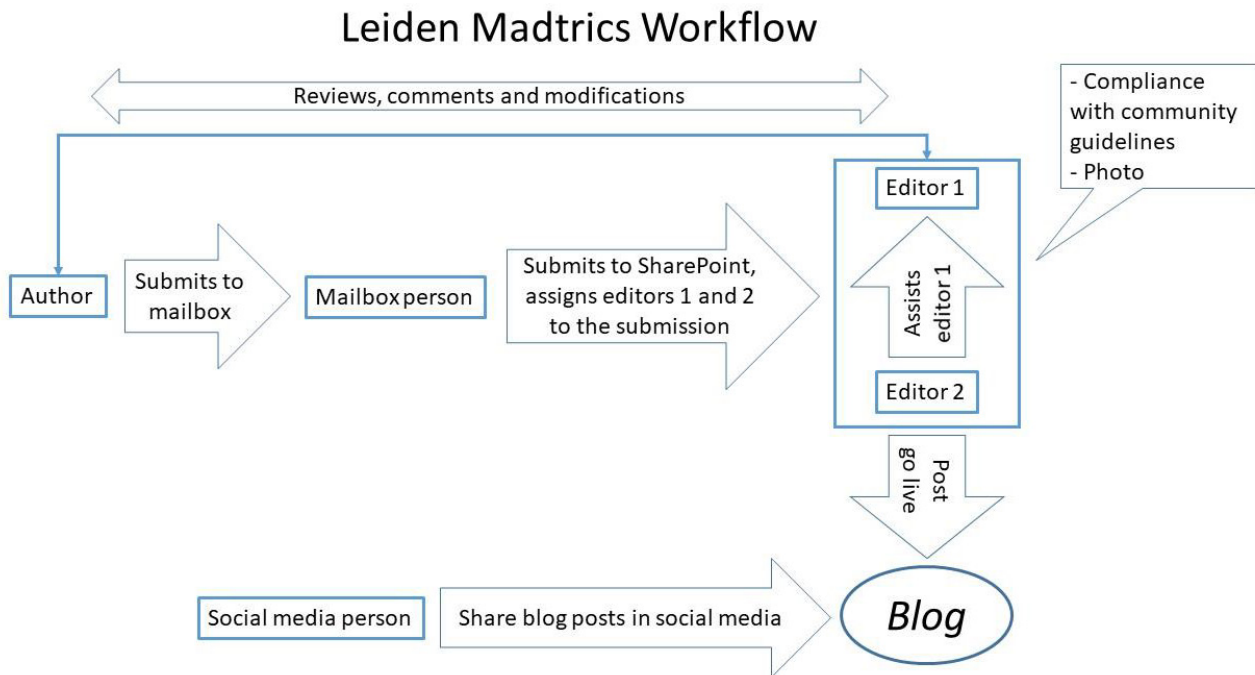
Leiden Madtrics Workflow

Figure 1. Editorial process for blog posts in Leiden Madtrics.

This workflow places as much responsibility on the side of the authors as possible, since the editing team defines its role as facilitator rather than reviewer. This means that authors should make sure that their submission is factually correct, e.g., by seeking a review themselves. Also, as editors we don't aim to make changes to a blog post but will only make suggestions where necessary. A second important element in our workflow based on our guidelines is a rotating division of tasks: During the editing process – from receiving to finally publishing and distributing a new blog post – two team members are involved, but the first editor will usually have the major part. This role alternates between team members so that the overall commitment is limited, and everyone gets a chance to edit.

Over time, our team has seen some fluctuation from seven members at the start, new members joining over time, and currently four editors active, who have also been among the founding members. With this continuity and the changing of tasks, we were able to build up quite some experience and routine, which has definitely contributed to the sustainability of the blog. It has also provided room for more challenging edits, e.g., the use of dynamic visualizations, the selection of (header) pictures (that are not always provided by the authors), or the communication on channels like Twitter and Mastodon.

The content and direction of the blog has always been dependent on the submissions that the editing team has received. In that sense, the range of blog posts published reflects our authors' interests, the availability of topics that fit into a blog post, or new developments for which authors chose the blog as communication platform. We have seen this especially during the Covid-19 pandemic: That period has been one of the most prolific for the blog, with quite a number of submissions on how we adapted to the lockdowns, but also the new research that was done on changes and developments in the publication world during the pandemic. Another changing factor has been that we started to actively invite authors from outside of CWTS at some point. Usually, this included guest speakers from seminars or visitors who had spent some time at CWTS.

What is the intellectual agenda the publication wants to pursue?

The central goals of the Leiden Madtrics blog are to be a platform for both the academic and non-academic work done at CWTS, and to be a means to connect with the community. In practice, this means that we strive for a balance of posts spanning the different disciplinary and methodological backgrounds at our institute, different career stages, different types of work and work outcomes and developments (e.g., organisational changes, new initiatives, new platforms or projects…).

Next to that, we also have another, maybe less obvious goal: to demonstrate that academics can write about their research in a 'light' way – that you don't always have to write 'serious' texts when it comes to your research. Try out new formats, dare to just jot down your ideas: that is a message we hope to confer with the blog (and to be a platform for).

Has the project and/or its publications been subject to controversy in the sense of difficult decisions made by the editorial team?

Luckily, the Leiden Madtrics blog has not been in the middle of any storm so far. We do, however, see topics that attract more reactions than others. This seems to apply especially to well-known topics around research evaluation (h-index!) and publication practices (think of predatory publishing and editorial practices).

Does the publication have a political stance in the contemporary changing and contested publication sector?

Following its importance at CWTS, Open Science has found its way into many blog posts. Blog posts itself are published under a creative commons license (CC-BY 4.0), which makes it possible to reuse them. Beyond that, we simply wish to give a platform to our authors, which oftentimes includes a more critical stance towards a closed publication system. This also means that we accept blog posts from a broad range of topics and by authors from different disciplines and levels of seniority, also from outside CWTS.

Have there been any difficulties in creating and sustaining this publication project?

The most visionary goals are useless without authors contributing blog posts. Getting people to write has indeed been among our foremost struggles. It might be that authoring blog posts is simply not among the most common or prioritized academic activities, and is still seen as something nice to do 'on the side'. As a consequence, the set-up of topics in the blog is almost entirely up to the submissions received. Of course, this is fine – a community-driven blog will always be a reflection of what authors submit, and less so of content planned.

More recently, a new challenge has emerged: How do you make sure that contributions are made adequately visible? With so much effort put into a blog post – from authoring to editing it – it is only fair to wish for an audience as broad as possible. However, reaching every reader who could potentially be interested in a piece is not always feasible, especially with very niche topics. The recent developments at Twitter have aggravated this problem, it seems. Some readers have migrated to Mastodon, but with an audience dispersed like that it seems ever harder to create 'virality' through which more distant readers might be reached. This remains an ongoing challenge for us. In order to address this, we have started diversifying our outreach and are experimenting with additional platforms.

What readership do you address?

Leiden Madtrics started with a broad audience in mind. This included our colleagues and fellow researchers, and anyone interested in the topics dealt with at CWTS, recent developments in our lines of research and our institute, and the day-to-day experience of working at CWTS. Ideally, this extends towards other groups of readers: students, university administrators, policy makers, and researchers from other, even totally unrelated fields. For all of these groups we envisioned that they might benefit from reading a post here and there, be it by getting inspiration, ideas, insights into or just an introduction to our field. Of course, reality looks a bit different and not all the topics in the blog are of equal interest to everyone. With that in mind, we aim to see the blog more as on offer, where readers can pick a blog post that falls into their interest or domain, with the potential of discovering new topics.

What contributions are you looking for?

New blog posts are always welcome – or just ideas for a blog post, first drafts, suggestions. It can be challenging to adept to the 'rawer', more playful nature of blog posts (in contrast to e.g., a journal article). Still, we invite our authors to experiment with blogging as a creative medium that can be used to talk about research in different, even totally new ways: using interactive graphs, interview-like Q&A-style, the form of an essay, or just good old blog style…

When it comes to topics, we require some connection with the areas of research worked in at CWTS. Within that range, almost anything is possible. Think of testing out ideas, sharing ongoing research, reporting on workshops or conferences, parts of research left unfinished… As a rule of thumb: Whenever a topic does not quite fit into a journal article, it might just be perfect for a blog post.

Thinking of a blog post's audience, authors should expect that they do not only address an academic community. Thanks to being less formal, shorter, and usually timelier, a blog post can attract audiences at the intersection of science and society, (ideally) translating research for non-academic stakeholders. This is not a one-way street: As directly as audiences can be addressed with a blog post, they can provide feedback just as instantaneously. That's why we say: count on your readers.

EVENT REPORTS

On Generation: A Review-Recap of AusSTS2022

Scott Webster

What does "generation" mean? This year's Australasian STS Graduate Network conference (henceforth AusSTS2022) reflected on this theme as postgraduates and early-career researchers participated in a multi-sited gathering across Darwin, Melbourne and Sydney in Australia and Wellington in Aotearoa New Zealand. Founded in 2017, the AusSTS network has hosted these annual transnational workshops since 2019, in partnership with sister STS networks local to each "node". Across two days in July, these nodes converged virtually for a morning keynote session before dispersing for their own programs of field trips and paper presentations. This review focuses on the talks and experiences had at the Sydney node, hosted primarily by the University of New South Wales on unceded Bedegal land. For the Sydney node, where 2021's conference saw a rapid (yet successful) late transition to online conferencing, AusSTS2022 entailed what was (for many) a first in-person gathering of this community and an opportunity to experience the field trip postponed from the previous year.

AusSTS2022 commenced with an outstanding keynote lecture delivered by Professor Anne Pollock (King's College London), hosted by the Melbourne node, which charted the exciting generative work of current feminist, antiracist and decolonial engagement with STS. The central theme was "critical hope" as generation - Paulo Friere's[1] phrase which holds that hope alone is not enough but it is necessary as we engage with concrete and material struggles - which Pollock fertilised with Ruha Benjamin's[2] wonderful gardening and vegetation mantras. "We water what we grow," Benjamin's grandmother often said; that is, where we put our attention, energy and resources determines what will grow. Another Benjamin mantra, "bloomscrolling", further captured this ethos of critical hope. "Bloomscrolling" is envisioned, not as an escapist counterpoint to 'doomscrolling'

Figure 1 Anne Pollock delivering her keynote lecture in Melbourne

through the world's bleakness on our social media platforms, but as a search for opportunities to flourish and to engage with the world in ways that are not defeating. Critique remains an essential nutrient – indeed, as Pollock rightfully asserted, "we need those searing indictments of our unjust world" – but the generative work surveyed focused on practical and hopeful aspirations. This was something of a return to the debates on critique, arguably formative for STS, and Pollock situated her charting in relation to the Latourian post-critique turn and the feminist scholarship of Sandra Harding[3] and Donna Haraway[4] that long predated it. But even Haraway's call for an approach beyond "nothing-but-critique" in the seminal "Situated Knowledges" leans toward the abstract. How should feminist STS scholars live their everyday lives?

The contemporary scholarship that Pollock charted bears a more practical sensibility with an orientation toward the everyday and mundane - which critical disability studies, in particular, has spearheaded (see Aimi Hamraie and Kelly Fritsch's "Crip Technoscience Manifesto"[5]). The everyday classroom setting figures as a generative site for both Pollock and Benjamin. For Pollock, being an insightful teacher needs not be at odds with being an insightful researcher, an idea which is a challenge to conventional wisdom that holds teaching as a burden that obstructs writing. Her latest book, *Sickening: Anti-Black Racism and Health Disparities in the United States*[6], was conceived and composed with undergraduates in mind. Its case study structure - running from the 2001 anthrax attacks that killed black postal workers to Serena Williams' near-death experience giving birth - skews the typical approach of foregrounding historical racism. Pollock posited that such narratives enable racism to be constructed as "a legacy of the past", a lingering "residue", which is too remote from students' experiences and elides the agency and responsibility of present-day actors. Pollock capped AusSTS2022 with a book talk on *Sickening* at the Sydney node, expounding on the book's themes and case studies; it presents a compelling argument for the promise of undergraduate-focused writing as "an as-yet-unrealised site of generativity for feminist, antiracist, and decolonial STS."

The second day opened with an "intergenerational plenary", hosted by the Wellington node, featuring Hana Burgess and Mythily Meher (both of Waipapa Taumata Rau-University of Auckland) and Billy van Uitregt (Te Herenga Waka-University of Wellington). The late Teresia Teaiwa[7], whose "The Ancestors We Get to Choose" reflected on the enabling epistemic influences for her own foundational work, provided a platform for each thinker to reflect on their own influences in conversation with "generation". Burgess posited that generations reach us back and reach us forward; we are meeting points between past and future generations. She argued for intergenerational vision that looks beyond the present, which would also entail a move away from Western conceptions of time as an arrow, framed in narratives of 'progress'. Meher spoke of giving back to elders who have given us so much, situating this alongside a reflection on her own internalised racism, which had led her to a remove from her 'Indian-ness'. The fractured feeling of community this produced was counterposed with a practising of hope in a feeling of connection with others and other generations. Van Uitregt also spoke of older generations – of his late mother and of how her yarns passed with her – and how to relate in generative ways. This entails a coming together to generate something that did not exist before and which, importantly, must move beyond transactional modes of relating. Together, the panel enriched and challenged conceptions of generation, generations and generativity, drawing on their personal experiences and ancestries to espouse ways of relating to pasts, presents, futures and landscapes.

Professor Abby J. Kinchy (Rensselaer Polytechnic Institute) concluded the second day of AusSTS2022 for the Sydney node with a brilliant public lecture on the generation, and generations, of slow violence through lead pollution. Kinchy opened with an account of how advocates for lead-based technologies story lead contamination as being of the past, that engineering and technological fixes

1 Friere, P. 2021. *Pedagogy of Hope: Reliving Pedagogy of the Oppressed*. London: Bloomsbury Publishing.

2 Benjamin, R. 2022. *Viral Justic: How We Grow the World We Want*. New Jersey: Princeton University Press

3 Harding, S. 1986. "The Instability of the Analytical Categories of Feminist Theory." *Journal of Women in Culture and Society*. 11(4): 645-664.

4 Haraway, D. 1988. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies*. 14(3): 575-599.

5 Hamraie, A. and K. Fritsch. 2019. "Crip Technoscience Manifesto." *Catalyst: Feminism, Theory, Technoscience*. 5(1):

6 Pollock, A. 2021. *Sickening: Anti-Black Racism and Health Disparities in the United States*. Minneapolis: University of Minnesota Press.

7 Teaiwa, T. 2014. "The Ancestors We Get to Choose: White Influences I Won't Deny." In T*heorizing Native Studies*, edited by A. Simpson and A. Smith, 43-55.New York: Duke University Press

8 Nixon, R. 2011. *Slow Violence and the Environmentalism of the Poor*. Cambridge: Havard University Press.

9 Gray-Cosgrove, C., M. Liboiron and J. Lepawsky. 2015. "The Challenges of Temporality to Depollution & Remediation." *S.A.P.I.E.N.S.* https://journals.openedition.org/sapiens/1740

have intervened and enabled a new role for lead within next-gen (and ostensibly "green") technologies like solar batteries and electric automobiles. But our world is already "lead-saturated" and, once it has contaminated the environment, lead can take generations to break down – a reminder that generation can, alongside the critical hope and creativity covered elsewhere, also be fraught and hazardous. The "lead in my grandmother's body" art-project, made in protest of the McArthur River mine in the Northern Territory, Australia, punctuates this point; we cannot pretend that lead pollution is in the past. So, Tinchy asked, "how can we reckon with past and present harms when envisioning next-generation technologies?"

Set against the narratives that would obfuscate the persistence of harms from lead pollution and contamination is the concept of "slow violence". Rob Nixon[8] conceptualised "slow violence" as "attritional catastrophes", which are temporally and spatially indistinct, and thus are challenging to notice, communicate and story. Kinchy situated her work with community-based participatory studies of soil contamination as means to disturb the representational challenges of slow violence with lead. "Our Soil" engages in "do it together" soil study methods in Troy (NY), USA, and Arica, Chile, as well as producing toolkits (both testing devices and for organising) for other communities to participate. In Arica, alongside workshop findings, Kinchy introduced the "Mamas of Lead" group who challenge the slow violence of lead contamination that escapes its temporal constructions within policy, pushing for intergenerational justice. Meanwhile in Troy, modes of gardening once again figure as hope, in this case with the regeneration of contaminated soil through urban garden projects. But how can intimate interactions with soil be navigated when they bear the tensions of perceived contamination risk? Another critical factor with such soil regeneration is that it requires perpetual attention and care which, as Kinchy observes with Gray-Cosgrove et al.[9], generally falls to those at risk of contamination or already contaminated, and therefore those subject to slow violence, not the polluters themselves. Without sufficient resources and support, practices of perpetual care necessary for soil regeneration are difficult to sustain.

The Sydney node comprised four presentation sessions where speakers had five minutes each to deliver their paper. Each session then turned to Q&A, where the papers were brought into conversation with one another and with the session and conference themes. *Lingering* was the theme of the first paper session and covered the lingering of tastes and smells, of once familiar but increasingly rare sounds, of affective responses to what is absent in our everyday surroundings, and of the "afterlives" of data collection. Ella Butler explored "aftertastes" – a problem within food science as cereal manufacturers grapple with a new historical moment (in the form of regulations and customer expectations of healthier products) and past inheritances (such as consumer memories of how cereal products taste across generations). Myles Oakey invited us to consider how song matters for the persistence of the critically endangered regent honeyeater; how we come to know song, as an object and artefact of ornithological knowledge, and how thinking song differently might generate new ways of attending and caring across species relations. My own paper considered the interweaving of affective responses to both home loss and environmental change following the 2019-20 Black Summer bushfires in Australia. How might our sense of home be shaped by its more-than-human entanglements (such as the routine calls of local birds and bats or the familiar presences of trees nearby)? What role might memories fulfil in drawing to the surface ecological relations beyond dominant Australian narratives on home as that which separates us from nature? Katherine Kenny concluded the session with reflections on the "afterlives" of qualitative data for participants and researchers alike, asking what happens relationally and affectively for both when imagined futures of health and recovery do (or do not) come to be. Kenny explored this question through interviews with parents of children with cancer and their experiences of "precision medicine" put into practice.

Figure 2 Myles Oakey presenting on how song matters for the ongoingness of regent honeyeaters

The second session focused on *Making and Remaking* with an emphasis on the generation of new forms of care, labour and consumption as familiar sites, practices and roles are remade or reconceived. Zoe Elena Horn introduced Amazon's Go and Alibaba's Hema retail outlets – cashierless convenience stores that remain niche yet warrant serious attention. Through these case studies, Horn highlighted how the "automation format" can be reconceived in its mappings of automation as complex arrays of technologies, infrastructures, labour and algorithms to better trace their geopolitical and ideological dimensions. Jayson Jimenez reflected on his work with bonsais as "care", a generative practice that centres ways of relating and responsibility that cannot be adequately described as "gardening". It is an art of paying attention which, for Jimenez, prompts further reflection on what it means to attend to human-nonhuman relations at a time when the destructive impacts of human activities on the planet is being named "the Anthropocene". Mia Harrison continued the focus on the doing of care in a study of Sydney-based healthcare workers during the Covid-19 pandemic. Harrison unpacked the materiality of care environments – in particular, the hospital – as fluid assemblages of care materials that tended to complicate their conventional temporal and geographic boundaries as well as standard categories of "care" and "carer".

The third session – *Innovating* – explored and speculated on how we come to know and how it is co-constituted with technology and socio-material context. Cobi Calyx presented how satellite imagery and environmental law have been co-produced over the past sixty years before taking a speculative turn. What might this mean for futures where remote-sensing technologies intersect with machine learning and artificial intelligence to visualise climate change? Amy Denmeade looked at the storytelling that becomes attached to emerging technologies which, in turn, materially shapes these technologies through informing notions of what is possible and desirable in design and regulation. In particular, Denmeade drew attention to the role of 'generative metaphors' within such discursive practices, which circumscribe particular ways of thinking about technologies that enable and foreclose policy possibilities. John Noel Viana concluded this session with a paper that preliminarily explored how changing circumstances tied to the Covid-19 pandemic in different parts of Australia variably shaped knowledge generation. This research is ongoing, as new viral variants emerge and spread, which in turn continue to shape the variable contexts that influence knowledge generation.

The final paper session spoke to the theme of *Looking Forwards*, in both reflection and speculation, covering new forms of conservation and energy supply and new frameworks that centre specific values in artificial intelligence development. Mardi Reardon Smith introduced Pam, a cattle grazier in far north Queensland, whose pastoral lease contains most of the known nests of the endangered golden-shouldered parrot. Pam's complicated, seemingly contradictory relationship with these parrots while remaining economically dependent on practices that continues to threaten them, is generative for what Smith argued are messier forms of conservation that step away from expectations of 'perfect' or 'pure' solutions. Lizzie Crouch proposed "creative producing" as a new framework for inclusive interdisciplinary research. Crouch argued that for collaboration to be generative of inclusive outcomes – such as in art-science (interdisciplinary methods that combine scientific engagement and communication with artistic approaches) – an orientation must be adopted that centres values, ethics and politics while embracing disciplinary difference as "constructive friction". Lorenn Roster reminded of the non-neutrality of technological design and decision-making with a focus on artificial intelligence-enabled systems. Roster highlighted how, in some entrepreneurial contexts, dignity-centred artificial intelligence development is being valued. Her paper explored some emerging questions around how these entrepreneurs negotiate spheres of responsibility and make space to reflect within what

Figure 3 The Sydney node's field trip began with an app-guided scavenger hunt through the Chau Chak Wing Museum at The University of Sydney

are fast-paced contexts for development and design. Sophie Adams concluded the session with a look at emerging forms of organising energy supply following Australia's 2019-20 bushfires with an emphasis on powering remote and rural communities. Adams introduced two micro-grid case studies, a "coastal" and "mountains" one, and explored differences in community participation and sentiment around these as both emergency energy supplies and as alternatives to centralised models.

The Sydney node's field trip was a visit to the Chau Chak Wing Museum at the University of Sydney - the trip postponed from AusSTS2021 due to Sydney's Covid-19 Delta variant outbreak. The visit began with an app-guided museum tour/scavenger hunt which brought each team to a small juglet from Ancient Cyprus, a child-mummy called Horus, an art collection of optical illusions, and (my favourite) a dissectible mid-19th Century French papier mache model called Gladys. We then re-convened for an objects-based learning experience. There were four tables, each with three de-contextualised 'artefacts' from which each team had to select one and compose a set of (non-analytical) observations about its materiality. After a few minutes, each team rotated to the next table, to continue the previous team's work but only once their existing observations were used to identify the relevant object. The teams rotated once more, going through the same process of building upon the previous teams' contributions, before finally being invited to engage in analysis. What is the object? What was its purpose?

This activity invited us to reflect on how knowledge is not constructed in a vacuum, how it is reliant upon and shaped by epistemological foundations built with others, not the transcendent brilliance of individual insight or even the exchanges of the final group who finished with the object. We can extend this further, to the decision-making (kept from us) behind which objects were placed and where, why certain objects were brought together and others not, and how they came to be held in the Museum itself both in terms of their material journeys and the epistemologies that construe these objects as ones worth holding. The objects, stripped of context and epistemological signposting, were all the more interesting for the setting, within an institution that conventionally coheres the relation between objects brought together and guides the construction of meaning and value. We finished by taking part in this construction ourselves; each team had to decide which of the objects – freshly identified and explained – on their table was most important and present our reasoning to everyone. My team's choices: a reconstructed skeletal human foot, each bone separately pinned to a wooden board, identified with an index code leading to a scientific name; a wood-and-ceramic water filtration device (which we thought was some kind of slow-burn candle); or an antique abacus. What would you choose? Why?

Dr Scott Webster is a Postdoctoral Research Fellow with the Sydney Environment Institute at The University of Sydney. His current research investigates how communities self-organised during the 2019-20 bushfires and the 2020-22 floods in New South Wales, Australia. His broader research explores connection to place - especially at the intersection between home, memory, and ecological embodiment - and the forms of suffering and injustice caused when these connections are severed.

Investigating the Moral Nuances of Nature: A Multisensory Exploration Through the Anthropogenic Urban Woodland

Bente Castro-Campos

In June 2022, I embarked on an expedition with a team of researchers, creatives, and members of the public to investigate a woodland located near Frankfurt, Germany. We made five stops to observe the Anthropocene's environmental effects, collecting artifacts to build an artwork that stressed the significance of viewing nature as a unified system. Our conversations revealed that local authorities cared more about financial losses from tree decay than the ecological consequences, which gave me a powerful and enlightening experience.

Introducing the experimental artwork

In June 2022, I embarked on a journey of discovery in a forest in the Frankfurt am Main region of Germany. With a small group of social and natural scientists, artists, and informed citizens, we ventured through five stations in the forest, guided by a dendrochronologist and two artists. The action is about discovering the secrets of the forest, gathering dead wood, humus soil and other treasures that had settled on the fallow land, before bringing them to a nearby Botanical Garden. As I observed with my pocket camera, notebook, and pen, I sought to uncover the moral and ethical dilemmas of environmental (in)justice and resource use in the Anthropocene.

Observing quartzite mining

We visit a quartzite factory, the largest of its kind in Europe, that has been in operation for over a century and a half (Fig. 1). Quartzite is a vital element in road construction and other products. We ascend to an observation platform built for tourists to have a better view of the quarry. It is scorching hot, much higher than the average temperature at this time of year, a clear indication that we are now living in the Anthropocene.

A viewing platform for tourists may not be built to show the environmental destruction caused by mining, but to celebrate the mining tradition. As I gazed upon the mine from the platform, I could not help but ponder the impacts of this industry on the surrounding landscape. How many trees and species have been displaced by quarrying? What other roads and products are constructed with the quartzite? How many people depend on mining for their livelihoods, and what are the labor conditions of the operators of the tiny trucks seen from the distance?

A local participant emphasized the importance of clay as a byproduct of quartzite mining, which was readily available to the local community to utilize. The quartzite mine's response to the exploitation of nature can thus be seen as a form of gift-giving, in this case, returning clay to local people for pottery-making. This practice is in line with Marcel Mauss's understanding of gift-giving, which stipulates that a gift must be given, accepted, and returned (Mauss, 1925). The clay produced from quartzite mining is thus a residual product that can be reused free of charge by interested parties.

We observe the devastating effects of the Anthropocene on the nearby platform, with the dieback of trees and the lack of new growth. Yet the area is still being re-populated with plants and flowers, such as foxglove, despite its potential toxicity to humans. The mine, however, stands out as an exception, with no visible signs of regeneration.

Fig 1: Quartzite factory (Source: Author).

Imagining the wind

As I walked along the dusty, sandy road with the group, strong winds had up-rooted several trees. Much like the area before, the environment here enabled the proliferation of other flora and fauna, with foxglove particularly abundant (Fig 2). Metaphorically, the wind could also be understood as a ghost of the Anthropocene, carrying with it the vestiges and signs of past ways of life still charged in the pres-ent, as described by Lowenhaupt Tsing et al. (2017, G1) in the book "Arts of Living on a Damaged Planet: Ghosts of the Anthropocene".

The mayor, who joined the fieldtrip for a short time to give a speech, astounded me with his revelation that the most significant threat posed by tree death was not ecological devastation, as I had anticipated, but economic detriment. People had planted spruce trees in a habitat not meant for them, creating their own catastro-phe for quick profit - a critique voiced in other contexts by the Frankfurt School and Herbert Marcuse's (1982) notion of the irrationality of technical rationality. Despite this, the mayor saw hope in the timber, which could be sold to make roof battens and pay the local kindergarten teacher. He also pointed out the danger of dependence on imports from other parts of the world when timber is not planted locally.

Fig 2: Trees uprooted by strong winds and growing foxglove (Source: Author).

Determining the age of a beech tree

As we approach the beech tree, we are immediately engulfed by its heavy canopy, shielding us from the harsh sunlight and providing a cool refuge on this hot day. Its thick foliage blocks out most of the light, leaving little space for other plants and trees to grow beneath it. Despite its intimidating size, we are still charmed by its beauty and grace (Fig 3).

I was astonished to find that the beech tree before me, with its wire wrapped around it and a sign with the number 2 on it, was actually 212 years old. As it was rather slender, I had initially guessed it to be no more than 30 years old. My assumption was quickly disproved, however, by the dendrochronologist, who explained to me that the thickness of the tree is not the only factor in determining its age, as the annual rings can easily be made narrower by environmental influences.

We were all taken aback by the shrill sound that accompanied the dendrochronologist's drilling of the beech tree, and felt a wave of regret for disturbing the tree without its permission. Regardless, the sample was taken and the borehole intentionally left open to foster healing. It is a testament to the beech tree's remarkable fortitude, its ability to survive and recover from human interference; in time, it will even heal over the wound, but the impact of our intrusion will remain, a lasting reminder of its strength.

Fig 3: Dense crown of a beech tree (Source: Author).

MILITARIZING THE FOREST

The ruins of the Roman fort on the Limes invite us to reflect on the military use of the forest over so many centuries. Despite the passing of time, the moral implications of such use remain unchanged. We come across a Bundeswehr site that was an American military base from 1949 to 1997, a reminder of the controversial debates surrounding national security and defence. The tall wire fence with barbed wire rings at the top looms strangely, enclosing the Bundeswehr's second largest ammunition depot. The sight of this testament to years of military activity stirs up a range of emotions: frustration and sadness. By looking upon this symbol, we are provoked to consider the collective human experience of hardship and progress.

TAKING FOREST RESIDUES

The last stop is a spruce forest, its life force now extinguished by the bark beetle. We don our gardening gloves and, with shovel, rake, and hoe in hand, set about carefully packing buckets with the dead wood, soil and other things. Two participants venture further into the fallow land, searching for larger branches and trunks, while I work closer to the van, pushing aside the top soil with a hoe and digging out the rich humus beneath. We take turns lugging the buckets to the van, and then passing them up the small stairs to the people inside. Amid the digging,

I find three caterpillars hidden in the soil, their fate unknown. I pause, considering their future. With a heavy heart, I set two aside, hoping they will survive in the destroyed forest, while the third I keep in the bucket as an invisible part of the artwork in the Botanical Garden. Right or wrong, I can only hope I have done justice to the ruined landscape, and that the caterpillars will find a new home.

INSTALLING THE ARTWORK AND REFLECTING THE EXPERIENCE

The next day, I was filled with a sense of wonder and awe as I watched the installation of the artwork in the Botanical Garden and experienced the inauguration ceremony (Fig. 4). I was deeply moved by the moral dilemmas and thought processes that were triggered by the actions in the forest and the outcome of the experimental artwork. I allowed my senses to open up to fully receive a holistic understanding of the experience (see Pink, 2009). I felt the profound importance of performative actions like these to impart moral values, and in this case, to bring awareness to the environmental (in)justice that we face in the Anthropocene.

Fig 4: Experimental artwork exhibited in the Botanical Garden (Source: Author).

REFERENCES

Lowenhaupt Tsing, A., Swanson, H., Gan, E., & Bubandt, N. (2017). *Arts of Living on a Damaged Planet: Ghosts of the Anthropocene*. University of Minnesota Press.

Marcuse, H. (1982). Some Social Implications of Modern Technology. In *Arato, Andrew; Eike, Gebhardt (eds.). The Essential Frankfurt School Reader*. (S. 138–162). The Continuum Publishing Company.

Mauss, M. (1925). Essai sur le don. Forme et raison de l'échange dans les sociétés archaïques („An essay on the gift: The form and reason of exchange in archaic societies"). *L'Année Sociologique*.

Pink, S. (2009). *Doing Sensory Ethnography*. SAGE Publications Ltd.

For a decade, I have been a highly experienced researcher with a wealth of interdisciplinary knowledge in the fields of agricultural science, sociology, and anthropology. My enthusiasm lies in uncovering ideas with the potential to create sustainable and innovative projects that foster social and environmental well-being. I draw from a variety of research approaches, such as grounded theory, artistic methods, and sophisticated Stata modelling, depending on the desired outcome. With each project, I strive to make a meaningful contribution to our collective future.
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Researching and publishing strategies for multimodal interventions in the field of migration, borders and security technologies

Pedro Neto, Ildikó Z. Plájás, Nina Amelung

Figure 1. Still from Yoon's shooting archival footage (dir. Pedro F. Neto). Credits: Francesco Ragazzi.

Leiden University, 5-6 October 2022
Intro

Studying scientific practices of knowledge production has increasingly turned towards collaborations and experimentations, simultaneously appreciating the multimodal possibilities of designing and disseminating research (Estalella and Criado 2018; Ballestero and Winthereik 2021), engaging differently with diverse types of publics and stimulating new forms of critique (Forlano and Smith 2018). In Science and Technology Studies (STS) this turn to creative and participatory ways of doing ethnography has found strong resonances and renewed alliances in other adjacent fields, specifically in audio-visual and multimodal anthropology (Nolas and Varvantakis 2018; Westmoreland 2022). Inspired by these initiatives and drawing on our own research practices (Amelung 2021, Amelung et al. 2021; Neto & Falcão 2021, 2022; Neto & Baptista 2021; Neto & Korkmaz 2022; Plájás et al. 2020; Plájás 2023), we, Nina Amelung, Pedro F. Neto and Ildikó Plájás, joined forces to organise an international workshop that explored the promises and challenges of multimodal engagements with matters of migration, borders and technologies. The workshop was an STS-MIGTEC[1] initiative hosted by ReCNTR[2], at Leiden University, in collaboration with the Instituto de Ciências Sociais, University of Lisbon (ICS-ULisboa) and supported by the EASST Funds. The workshop took place in a hybrid format.

1 STS-MIGTEC is an independent network of scholars at the intersection of STS and critical migration, security and border studies.

2 ReCNTR is an interdisciplinary research centre focused on promoting multimodal and audiovisual research methods in social science and the humanities at Leiden University.

The event was based on invited papers from fifteen multimodal scholars from different parts of Europe and working at the intersection of Science and Technology Studies, Anthropology, Film and Media, Design and Architecture, International Relations and Political Science. The final roundtable, and the only open session of the workshop, counted with a broader audience of students and practitioners, online and in-person.

Figure 2. Roundtable discussion open to the public (on-site and online). Credits: Francesco Ragazzi.

Inspired by emergent discussions in STS on experimental collaborations (Estalella and Criado 2018; Lippert and Mewes 2021) and making and doing (Downey and Zuiderent-Jerak 2021), this workshop focused on alternative co-creative research and dissemination strategies that have the potential to reach beyond the walls of academia and engage with and intervene in broader public discussions. The workshop explored diverse approaches and methodologies of critical epistemic engagements and interventions with matters of migrations, borders, and technologies by taking stock of the possibilities and challenges offered by our contemporary media landscapes.

Our quest for multi-modal collaborations and interventions had the primary scope to widening the reach of STS scholarship across fields, to facilitate knowledge production with societal partners such as media makers, artists and engagement with wider expert and non-expert publics. Thereby we aimed to explicitly discuss with invited experts specific experiences, visions and challenges of knowledge production based on multi-modal interventions, including (the lack of) acceptance of multi-modality as non-conformist scientific practice and publishing strategies. We asked the workshop participants to share their experiences and think with us about best practices in multimodal collaborations, publishing and dissemination. Or, if they were currently working on a fitting multimodal project, to join us as authors that would contribute to a special issue and a future Making and Doing session.

Origin and background of the workshop

We, the organisers of the workshop, Nina, Pedro and Ildikó, started our collaboration as the co-convenors of the STS-MIGTEC Panel "Multi-modal interventions: the promises and challenges of creative and collaborative engagements with matters of migration, borders & technology" which took place in the annual STS-MIGTEC Workshop in February 2022. In the call for papers we asked: "How do multiple forms of engagements with border and migration control regimes imagine and make a difference on the matters they critically engage with?" This panel aimed to explore diverse approaches and methodologies of critical epistemic engagements and interventions with matters of migrations, borders, and technologies. With multi-modal interventions, we referred to research engaging with creative audio-visual utterances focussed on the themes outlined above, which span across the broader spectrum of media genres and formats (including e.g. installations, documentary, film, podcasts, soundscapes, memes, graphic novels, mapping exercises). We invited epistemic interventions that could have the potential to make a difference in practice, including in the living conditions of migrants, as well as conceptual reflections on such collaborative, and researcher- or practitioner-led initiatives. We then encouraged the submission of a diversity of approaches with regards to the purposes and ambitions of interventions, but also with regards to their methodologies and formats. The workshop on "Researching and publishing strategies for multimodal interventions in the field of migration, borders and security technologies" was the natural follow up to this panel.

Figure 3. Getting to know each other on Day 1. Credits: Ildikó Plájás.

Workshop contributions

The first day of the workshop started with an introduction round and with four *kick-off provocations* by Ildikó Plájás, Mark Westmoreland, Francesco Ragazzi and Fredy Mora Gámez. In these provocations we were first introduced to filmic montage as a generous and generative method to analyse technologies of vision used in governing people and their movement across European borders. After watching some examples of possible ways of intertwining written arguments and experimental film clips (see also Plájás 2023), Mark Westmoreland explored the ways in which the multimodal agenda resonates with current day's collaborative and decolonizing efforts (Westmoreland 2022). Francesco Ragazzi then reflected upon the relation between process and product and argued that processes could not be dissociated from the scientific products if we are to address and legitimate the diverse spaces for multimodal research. Finally, Fredy Mora Gámez presented a case study based on the project "Bring a chair into the room" in which he explored the possible ways in which a crafted chair could mobilise alternative narratives of reparation in Colombia and Southern Europe.

The second day of the workshop offered two panels and one final roundtable.

The first Panel with the title *"Multimodal inventions in Migration, Borders and Technology"* touched upon a wide range of topics and concerns around borders and mobility and challenged the traditional, text-based engagements of our disciplines. Shirley van der Maarel introduced us to asylum centres in Italy, and explored the uses of camera and anthropological film to stay true to the concerns and challenges of lived realities on the ground . Amade M'charek explored the "method of trailing" in Tunisia to understand the colonial and extractivist histories underpinning the so-called "refugee crises" while also moving across different sites and research contexts. We learned about the extensive surveillance infrastructure in a Palestinian neighbourhood in the occupied East Jerusalem and discussed a multi-modal mapping as a way to simultaneously attend to the fractures and contradictions of such surveillance infrastructures from Rune Saugmann and Ariel Cain. And finally, with Irene Gutiérrezwe explored participatory forms of ethnography among migrant women in Ceuta, Italy, and discussed the affordances and shortcomings of informed consent forms.

The second panel of the day, *Multimodal interventions in collaborations, writing and publishing* featured Ruben van de Ven and Cyan Bae, Jonathan Austin and Andrew Gilbert and introduced innovative methods and engagements ranging from diagramming, graphic ethnography all the way to designing objects for theoretical interventions. We were first introduced to time-based diagramming, developed to trace the unfolding imaginaries of computer vision technologies in the field of security by Ruben van de Ven, Ildikó Plájás and Cyan Bae. Jonathan Austin then prompted us to considered the ways in which concrete material-technological construction of functional objects or infrastructures can be used in critical social sciences – including but far beyond STS – in taking the active risk of designing, fabricating, and disseminating black (technological) boxes, rather than being content with deconstructing such black boxes. We ended the panel with reflecting on the affordances of sequential art (comics, graphic novels, etc.) for research practice and social intervention together with Andrew Gilbert and discussed how multimodal formats offer fresh ways to document events and practices, communicate research findings, evoke emotions and other complex phenomena, and engage multiple audiences towards diverse social and political ends.

Figure 4. Discussion on day 2. Credits: Ildikó Plájás.

The final roundtable, open to the public, titled "*Multimodal Futures*?" came back to the main ideas and puzzles discussed throughout the workshop. Nina's introduction was followed by Laura Forlano's intervention in which she shared her experience of collaborating with multimedia artists and makers in particular, to create a robotic sculpture that used data from her own insulin pump. Pedro F. Neto then presented several multimodal experiments, namely documentary film and installation done outside of his academic work, and discussed how the "leftover empirical materials" which did not make it into the edits of his award winning films, eventually contributed to his experimental installations expanding on his scientific reflections.

These two final interventions raised questions about reflexivity and interrogated how multimodal experiments can contribute to expanding scholarship. The workshop led to the collective commitment to follow up to these inspiring experiences of sharing and discussing possibilities of researching and publishing on multi-modality on the matters at stake of this workshop, e.g. migration, borders and technology. At the time of writing this report, a special issue project as well as a making-and-doing session are under preparation to sensitise wider audiences for the possibilities of multi-modality, broaden the interested community and pioneering with processes of collective and reflexive knowledge production on multi-modal formats for publishing.

Figure 5. Dinner with (from left to right) Nina, Rune, Pedro, Francesco, Ildikó, Cyan, Amade, Ruben and Andrew. Credits: Waiter at the restaurant ;).

PROCEEDINGS

The generous financial support of the EASST Funds made possible to bring together artists and scholars, to establish and expand communication networks and collaborations, and to pave the way for a second, follow up workshop which will result in a multimodal Special Issue in one of the leading STS or interdisciplinary journals and a Making and Doing session.

REFERENCES

Amelung, N. 2021. Politics of (Non)Belonging: Enacting Imaginaries of Affected Publics Through Forensic Genetic Technologies. In: Racism and Racial Surveillance. Modernity Matters. Edited By S. Khan, N. A. Can, H. Machado. London: Routledge.

Amelung, N.; Gianolla, C.; Sousa R., Joana; Solovova, O. 2021. Material Politics of Citizenship: Connecting Migrations With Science and Technology Studies. London: Routledge.

Ballestero, A. and B.R. Winthereik 2021. Experimenting with Ethnography. A Companion to Analysis. Duke University Press.

Estalella, A. and T.S. Criado 2018. *Experimental Collaborations: Ethnography through Fieldwork Devices*, Berghahn Books.

Downey, G. and Zuiderent-Jerak, T. eds., 2021. *Making & Doing: Activating STS through Knowledge Expression and Travel*. MIT Press.

Forlano, Laura, & Smith, Stephanie. 2018. Critique as Collaboration in Design Anthropology. *Journal of Business Anthropology*, 7(2).

Lippert, I. and Mewes, J. S. 2021. Data, Methods and Writing: Methodographies of STS Ethnographic Collaboration in Practice, *Science & Technology Studies*, 34(3), pp. 2–16.

Neto, Pedro F. & R. Falcão (directors). YOON, 2021. 84 min. (trailer: https://www.youtube.com/watch?v=FUDIxT6m0Ho&t=30s)
ISAN: 0000-0006-EFD1-0000-E-0000-0000-W

Neto, Pedro. F. & Baptista, J. A. (directors). 2021. *Abyssal*, 12min.

Neto, Pedro F. & R. Falcão. 2022. Routiers' transformational trajectories of waste, from Portugal to Senegal. In: *Border Crossings in and out of Europe*, ebookIS, CEI-ISCTE-IUL, pp.87-105 ISBN: 978-989-781-719-9.

Neto, Pedro F. & Korkmaz 2022. (directors). Guadiana in Four Movements, 12min. (trailer: https://vimeo.com/741066105)

Nolas, M. & C. Varvantakis 2018. 'entanglements that matter' In: entanglements: experiments in multimodal ethnography 1(1): 1-4.

Plájás, I. Z., Ragazzi, F. and van de Ven, R. 2020. From Consensus to Diffraction. On Generative Frictions in Mapping Computer Vision Technologies in the Field of Security. *Anthrovision*, Vol. 8.1. Online since 31 July 2022.

Plájás, I. Z. (2023). Interfaces: on the relationality of vision, face and race in practices of identification. A multimodal intervention. *Social Studies of Science*, 0(0): 1-26.

Westmoreland, M. 2022. Multimodality: Reshaping Anthropology, *Annual Review of Anthropology* 51:173–94.

Pedro F. Neto is an anthropologist and award-winning filmmaker, research fellow at the Instituto de Ciências Sociais da Universidade de Lisboa (ICS-ULisboa). He has conducted extensive research in Southern Africa (Angola, Zambia and Mozambique) and West Africa (Senegal and Guinea-Bissau) on topics such as forced displacement, migration, mobility, borders, refugee camps, development and violence. Recent audiovisual work includes: Guadiana in Four Movements (2022); YOON (2021); Abyssal (2021); Withering Refuge (2020). More at http://pedrofneto.com

Ildikó Zonga Plájás is a postdoctoral researcher at the Institute of Political Science, Leiden University. She studied anthropology and cultural studies in Romania and Hungary and then earned a degree in visual ethnography from Leiden University. She was a PhD candidate at the University of Amsterdam in the project RaceFaceID led by Amade M'charek, where she researched how visual technologies in governance enact racial otherness. Currently, she is a postdoctoral researcher in the ERC project "Security Vision" where she conducts (visual ethnographic) research with computer scientists developing image recognition algorithms. More at: https://ildikoplajas.com

Nina Amelung is a sociologist and research fellow at the Instituto de Ciências Sociais da Universidade de Lisboa (ICS-ULisboa), researching at the intersection of science and technology studies and critical migration/border/security studies. In her current project entitled "Affected (non)publics: Social and political implications of transnational biometric databases in migration and crime control (AFFECT)" Nina explores the social and political implications of growing database infrastructures – in particular their design, governance and implementation – on understanding and regulating affected publics. She is co-founder of the independent international research network STS-MIGTEC. Her work is driven by curiosity to learn, experiment and critically reflect about new forms of collaborative engagements with different publics. She has published in journals such Public Understanding of Science, Social Studies of Science and New Genetics and Society, and co-authored together with Rafaela Granja and Helena Machado the book Modes of Bio-Bordering: The Hidden (Dis)integration of Europe (Springer).

News from the Council

EASST Council work in progress

Michela Cozza and Maja Horst

Dear Members of EASST,

Honouring the mandate that the STS community has assigned to the Council members comes with the responsibility of caring for the differences that such a community embodies and requires listening to different voices in the context of rapid changes and big challenges.

In this regard, the Council is currently working on two matters of high importance such as the EASST Ethics policy and the future of conferences. Both are issues the community expressed interest in and manifested a commendable engagement with. On the occasion of the last meeting, hosted by the Centre for Science and Technology Studies of Leiden University (Netherlands) on April 18-19, 2023, the Council kept working on the above-mentioned issues as well as other activities such as the new initiative MetaROR (MetaResearch Open Review). The Council voted to become a stakeholder of the latter (for a description of MetaROR, see the related article in this issue of the EASST Review). We also discussed the next international joint EASST/4S conference, which will be hosted by the Athena Institute at Vrije University of Amsterdam from 16 till 19 July 2024.

Following up on the news from the Council, published in the last EASST Review (41(3) December 2022), we announce that a working group was created back in January 2023 to develop the EASST Ethics policy. The group includes the president of EASST (Maja Horst), the secretary (Michela Cozza), the student representative (Sarah Rose Bieszczad), one elected member (Andrea Núñez Casal), and one co-opted member (Teun Zuiderent-Jerak, local chair of the EASST/4S conference 2024). In constant conversation with the Council overall and tuning in to the STS community, the working group is defining the EASST Code of Ethics as a guide for the EASST members as they carry out their ethical responsibility as members of the larger STS community. The goal is to design a document that should anticipate and accommodate ethical challenges that may arise by defining the role of an EASST Ethics Committee, its general operating rules, and guiding principle(s). Such an endeavour should lead to the making of the EASST community a more respectful, generous, open, safe, and welcoming space, where everyone is treated in a helpful, considerate, and supportive manner. More work is needed but we aim at having the EASST Code of Ethics in place this year.

The second important question the Council is working on is related to the future of conferences with special regard to its format (see more in the related article published in this issue of the EASST Review). Considering the results of the ballot conducted during fall 2022 (814 members were balloted, 259 completed ballots received, 199 incomplete ballots: 56% turnout), the Council is pondering the pros and cons of three main models: face-to-face, hybrid, and nodal or multi-hub (where there are face-to-face gatherings at three or more locations while all content is online). Each model comes with specific financial costs along with different social and environmental implications as well as relevant consequences for community building. The discussion is highly important but requires avoiding simplifications. There are criteria for organizational feasibility and financial sustainability along with principles of inclusivity, sociality, and – not least – the quality of scientific knowledge-sharing that must be carefully balanced. The Council is fully committed to listening to those voices urging re-thinking how conferences are organised considering current global crises. However, it has the responsibility of doing it with the awareness that whatever decision is made, it has consequences that differently affect its different members.

Michela Cozza and Maja Horst (Secretary and President of EASST Council)

PROPOSED CHANGE TO THE SIZE AND COMPOSITION OF **EASST** COUNCIL

At the April 2023 meeting, Council agreed to expand its size, adding two more members. The reason for doing so is to better resource the work of the Council to undertake strategic initiatives that are difficult to achieve with the current number of Council members. Furthermore, it was decided that one of these two new positions should be reserved for ECR (early career researcher) representation, defined here as someone who has no more than seven years of experience since completion of PhD at the time of their election to Council. This would complement well the current reserved position we have for a PhD student.

We propose that elections for these two new positions would take place in 2024 as part of the usual election cycle.

As stated in the constitution, this change to the size and composition of the Council requires a vote of the membership, with two-thirds being in favour of the change for it to be adopted. This is because it necessitates a change in the constitution itself and would involve amending clauses six and seven as highlighted below.

Clause six currently reads:

The affairs of EASST are governed by a Council, consisting of a President, eight regular members and the President-elect subject to clause 7 below.

Under this change the clause would now read:

6. The affairs of EASST are governed by a Council, consisting of a President, ten regular members and the President-elect subject to clause 7 below.

Clause seven would change from:

7. Members of Council are elected by the individual members of the Association, from among EASST members. One of the regular members will be a PhD candidate at the time of election. No member of the Association shall serve as President for more than two terms. The Council shall have a quorum of 5 members. The Editors of the Association's publications will be co-opted members without voting power. The Council may co-opt up to four members in total without voting power either to undertake specialist tasks or to gain experience of Council before seeking election to full membership.

To:

7. Members of Council are elected by the individual members of the Association, from among EASST members. One of the regular members will be a PhD candidate at the time of election **and one would be an early-career academic (no more than seven years of experience since completion of PhD at time of election)**. No member of the Association shall serve as President for more than two terms. The Council shall have a quorum of seven members. The Editors of the Association's publications will be co-opted members without voting power. The Council may co-opt up to four members in total without voting power either to undertake specialist tasks or to gain experience of Council before seeking election to full membership.

The vote will be an online ballot, asking you as members to either agree or disagree with the proposal to add two more members to the Council, with one of these being reserved for ECR representation. The ballot is planned to take place in autumn 2023.

EASST General Meeting on the Future of Conferencing

In Autumn 2022, we canvassed all 814 EASST members' views on the future of conferencing. In light of the recent pandemic, the growing need to take action on the environmental impact of international academic travel, and the rising cost of accommodation and travel, we wanted to look afresh at what we do as an organisation. The biennial EASST conferences and the joint meetings with 4S are important events for our community, alongside the national STS association conferences that take place. They facilitate intellectual exchange, community-building, collaboration, and career development, and the surplus generated by the conferences provides EASST with funds to support our scholarly activities, most notably the annual EASST Fund.

In 2020, at the height of the Covid-19 emergency, we went entirely online for the EASST/4S conference organised by our colleagues in Prague. In 2022, we returned to an in-person conference in Madrid in a commercial venue. Now, we are actively exploring how best to stage future conferences after the 2024 EASST/4S meeting in Amsterdam. Many of the members (259 in total) who completed the survey indicated that they wished to continue to attend conferences in-person but were also supportive of holding hybrid conferences.

At the April 2023 EASST Council meeting in Leiden, we discussed the future of our conferences and came to the view that we should actively explore the possibility and desirability of running future events, beginning with the 2026 conference, in a fully hybrid mode. In doing this, we are seeking to achieve the following:

> 1. Greater inclusivity, by allowing researchers with caring responsibilities or chronic health conditions for example to participate in events without being there in person;
>
> 2. Reduction in the environmental impact of international travel by academics by giving participants the option of presenting online;
>
> 3. Reduction in the cost barriers that prevent some from travelling to and attending conferences in person.

However, there are several issues to consider in greater depth here. Can EASST, as a membership organisation, adopt a blanket policy on the format of future conferences or should local organisers have a say in whether to stage a hybrid conference or hold one entirely in person? It is also likely that, due to the cost of hiring equipment where needed, purchasing Zoom licences, and additional labour (to provide both in person and virtual support, as well as hybrid administration/communication), registration fees for hybrid conferences will be higher. In this context, we may wish to revisit the fee structures for conferences.

1 For detail on multi-hub conferences see: Parncutt, R., et al. (2021). „The Multi-hub Academic Conference: Global, Inclusive, Culturally Diverse, Creative, Sustainable." Frontiers in Research Metrics and Analytics Available at: https://www.frontiersin.org/articles/10.3389/frma.2021.699782/full

There are also different ways of staging a hybrid conference. We set out two ways below:

1. Fully hybrid conference in a single location that also permits full in-person conferencing. This location would ideally be one where lower carbon travel is also possible, which may mean that poorly connected locations may not be suitable to host conferences. Community nodes could join remotely, for example if a department or national association had a space and the set-up they could connect to the conference and participate in it that way. There would be a single Local Organizing Committee and panels/sessions/paper would be advertised and run in more or less the traditional way, with some speakers/participants joining via an online platform.

2. Fully hybrid conference in either two or perhaps even three locations that also permits full in-person conferencing but in places closer to where many researchers are located, so that the impact of travelling to those venues is less than in Option 1.[1] Community nodes could join remotely, for example if a department or national association had a space and the set-up they could connect to the conference. Centres would need to enter joint proposals to hold conferences and, organisationally, this would be more complex with a 'Local' organising committee comprising representatives from different locations, and would come with extra costs and challenges. Time zones would also be another consideration, although within Europe these would not be that great. Session organisers would have to specify a physical place at one of the nodes for their sessions/panels as well as having people joining online.

The actual uptake of the online option is hard to predict in advance and will vary from one event to another. NomadIT is gaining some valuable experience and insight into the staging of hybrid events and the number of delegates likely to take up the online option to present their work (to-date between 15% and 25%). These represent significant reductions in travel and its associated environmental impacts.

The proposal therefore is for the membership to discuss these options at an online special meeting in autumn 2023, and to gather additional information and perspectives from EASST members on the future of our conferences. Members will be emailed about the specific date and time in due course.

CALL FOR NEW EASST REVIEW EDITORS

The EASST Review is the quarterly of the European Association for the Study of Science and Technology (EASST). Since its creation in 1982, the EASST Review has played a crucial role in the constitution of the field of science and technology studies in Europe and beyond. As a community-building knowledge infrastructure, the EASST Review has provided a heterogeneous space for learning about each other, debating about matters of common concern, and experimenting with other forms of writing. You can visit it online here: http://easst.net/easst-review/

In the last decade, the EASST Review has only begun to feature the work and stories of STS groups and/or departments based in Europe (section STS Multiple), tell the stories of different STS-related publication outlets (section Cherish, not Perish), stage debates about pressing political issues (section STS Live), as well as publish reports from STS and EASST-funded events in Europe and around the world. Currently, the Review comes out three times per year both as an online publication and in a downloadable PDF version. One important challenge for the EASST Review in the future is evolve its digital infrastructures, presence, and identity.

EASST Council is looking to appoint new editorial team members in the upcoming year, serving for an initial period of three years with possibilities to prolong. The editorial team (currently 3 members) is supported by an editorial assistant and a graphic designer.

The main tasks of the editorial team include:

- Reaching out and communicating to potential authors of contributions to the different sections

- Reviewing and copy-editing submitted contributions

- Coordinating with EASST Council the publication of EASST announcements, reports on EASST-funded events, as well as reports on EASST biannual conferences

- Coordinating and managing the publication process.

- Participating and reporting about the EASST Review in the EASST Council meetings.

If you are interested in becoming an editor of EASST Review, please submit an 'expression of interest' by **September 1** to the following email: review@easst.net Your expression of interest should include a CV (including a list of your participation in EASST related activities), as well as a one-page statement delineating your motivation and vision for the EASST Review.