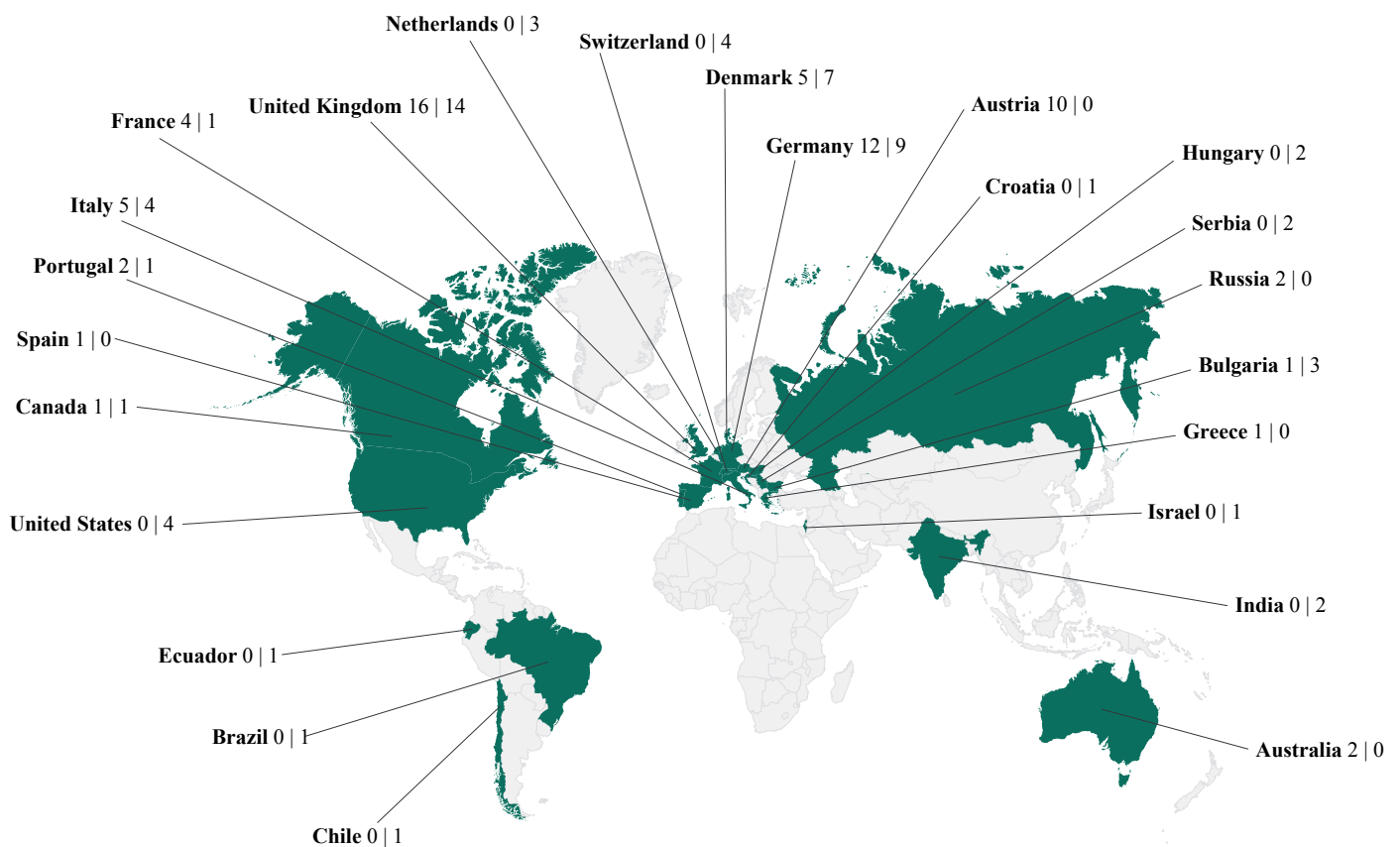


# EASST *Review*

European Association for the Study of Science and Technology



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# EDITORIAL

# O EASST REVIEW LOVERS, WHERE ART THOU? ON STS AS EXTITUTION

Ignacio Farías

Let me begin with an announcement: in the next few weeks we will publish the yearbook *Doing STS in Europe: EASST Review 2016* – a 250 pages book compiling all the contributions to the EASST Review during last year, including the profiles of four STS groups located in Europe and four STS publications platforms, as well as dozens of reports on STS events and EASST-funded activities, including two special features: one on Bruno Latour's exhibition RESET Modernity featuring an interview with the author and three commentaries; the second one on the EASST/4S conference in Barcelona last year featuring over to 20 reports on specific sessions and panels. A digital copy of the yearbook will be downloadable for free from our website. And you will be able to buy print copies (yes, nothing like physical objects you can hold in your hands) from conventional online retailers.

Good news, right?

But the project has also confronted us with tricky questions. First we thought: well, we would then need to give authors a free print copy, just like the one you get from any other publisher. This would also put some print copies in circulation among our core audience (you!), who might then in future buy print copies of all yearbooks we publish, and start their own collection. But discussing the idea further a different proposal came up: we could send free print copies to STS centers and departments. The issue is still undecided and we do not know yet how we are going to handle this, but the latter suggestion made me ask myself two questions: first, have we seen in the last years an institutionalization of STS at universities and research centers? And, second, should the goal of our professional organization be to just reinforce that process of institutionalization?

Thirty years ago, there were only a few STS centers around and practically the whole field was based in sociology, philosophy, anthropology, and political science departments. But has this really changed? We had a look at the last ten issues of the *EASST Review* and the result is perhaps exactly what one would wish for a successful interdisciplinary field: an exact tie of 62 authors based or affiliated to STS departments or centers and 62 authors, for whom in their bios we mostly found other institutional affiliations. By the way, we also have 57 female authors and 67 male authors, which is not so bad either. But even if we included Russia and Israel as 'non-European', the percentage of authors based in non-European institutions is just 12,9%, which should maybe remind us all of the regional character of our association and its main outlet.

But coming back to the question of institutionalization of STS, as reflected in author affiliations in the last ten issues of the EASST Review, we need to be careful with the *prima facie* positive results presented above. To begin with, we need to take into account, that in mid-2015 we introduced the section *STS Multiple*, where we invite STS groups and centers to present themselves. The seven contributions included in our database average 4 authors each. So, we have about 28 authors that appear listed as STS-based authors, whom we explicitly invited and encouraged to publish here. This doesn't speak against the strong presence of STS-based colleagues, for the important question is how are we collectively performing the field of STS, not what the field is in itself. But it introduces a nuance in the result.

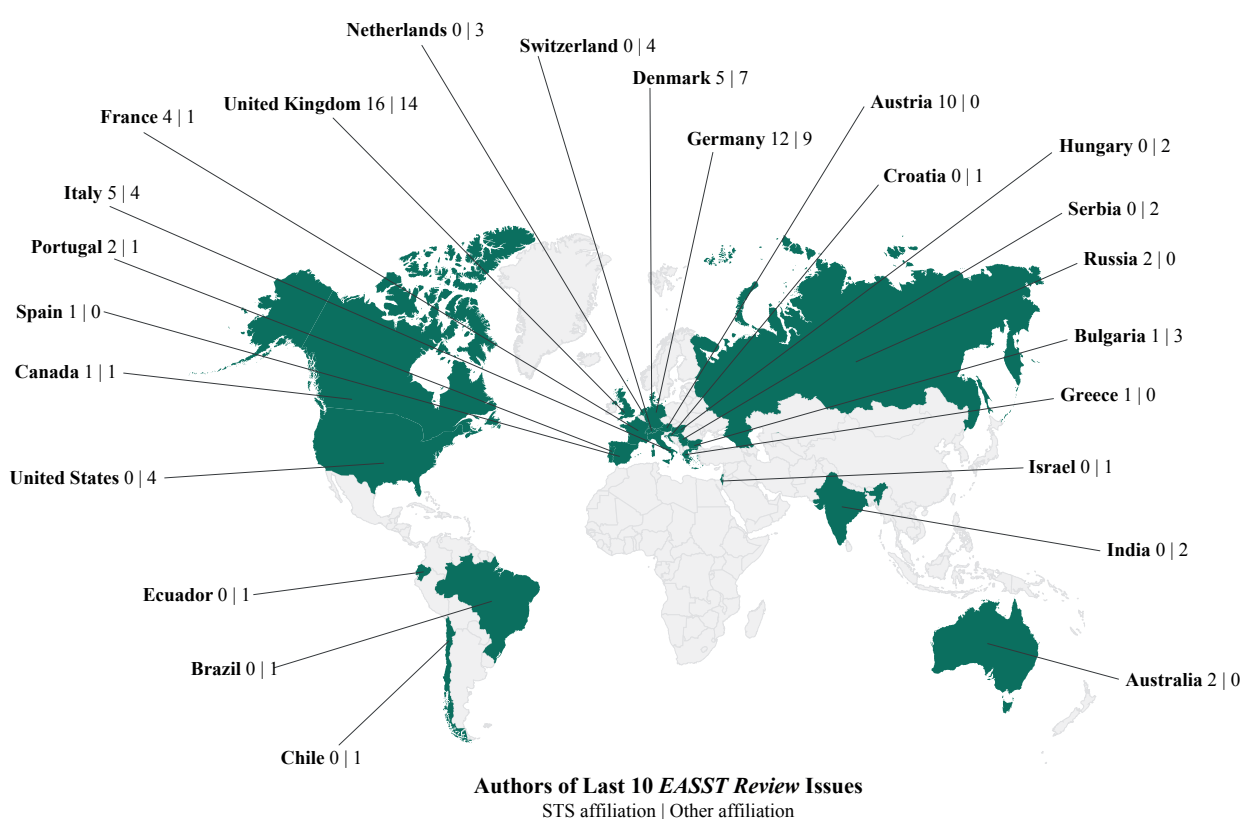
A second consideration is how our list reflects different levels of participation and institutionalization of STS across European countries. Most authors are based in Western European countries: UK (30 authors), Germany (21), Denmark (12), Austria (10) and Italy (9). For these five countries, 58% of authors are affiliated to STS departments. The percentage appears as remarkably high, when compared

<sup>1</sup> In ways perhaps related to how the Spanish STS network is currently being practiced and reflected upon. "What would then be prototyping an academic network? We don't really know but we have decided to explore it through the figure of openness and experimentation: opening spaces of dialogue with other actors and institutions outside the academic environment; experimenting with our academic modalities of rationality and their spatial organization" (Estalella, Ibáñez Martín & Pavone 2013: 6)

with the 42 authors from the other 19 countries, of whom only 33% is based in an STS department. Taking all this into consideration, we can confirm the obvious: STS is highly institutionalized in a small set of Western European countries, whereas in the rest of countries STS is primarily practiced in the margins of non-STS institutions.

We come thus to the second and more interesting question: how to act as a professional association in this context? I have really never questioned the idea that a major goal of EASST should be to support the institutionalization of STS both at universities and in national research funding agencies. It seems pretty obvious that we aim for a future in which universities have centers or departments of STS, where you can get a job in STS in most countries, and where, when you apply for funding, you don't need to crook your research questions or methods in order to make them fit in a disciplinary evaluation committee (remember Josefina's editorial on the presences and absences of STS in grants applications and CVs? See Raasch 2015). I certainly still believe that these are major goals for our field. I applaud the systematic support that EASST has given to the formation of many national STS associations and networks. At the EASST Review, the sections *STS Multiple* and *Cherish, not Perish* aim precisely to make visible this process of institutionalization of STS across different countries.

But I think that we should equally make an effort to support a non-institutionalized STS practice, but not in order to help it to become institutionalized, e.g. to create STS centers, associations or journals, but to keep STS a minoritarian intellectual practice in the heart of social and political science disciplines. In other words, couldn't also be the role of EASST to cultivate STS as a line of flight that effects deterritorializations of the institutions it departs from and that creates a highly experimental, speculative, but also committed intellectual space? Or to put it differently: couldn't also be the role of EASST to cultivate STS as an academic 'extitution'?



I really got to understand this Serresian notion through the work of Daniel Lopez. Two references are illuminating. The first one is a quote: "Institutions fragment, disaggregate, and separate in order to make visible the distinction. To build an institution is to constitute a Cartesian space, clear and distinct [...] In contrast, the extitution is a social ordering that does not need to constitute an 'inside' and an 'outside' but only a surface in/upon which a multitude of agents connect and disconnect" (López 2006). As Lopez further explains in a blog post from 2014 entitled 'There is no extitution, but modes of extitutionalization', an extitution is not just a different type of institution, one that could be more heterarchical or with flexible boundaries and that you can point to with the finger, but rather a process of de-territorialization or extitutionalization affecting institutions, contesting power arrangements, and opening up provisory spaces for establishing new connections.

Looking at the incredibly generative history of STS in the last 40 years, my sense is that this didn't occur in spite of, but rather thanks to its lack of institutionalization; lack of institutionalization that has pushed STS scholars to always invent new connections, new vocabularies, new research objects, and new political commitments<sup>2</sup>. Might it be that herein lays the crux and paradox of our field, always in need of simultaneously striving for institutionalization and extitutionalization?

<sup>2</sup> See, for example, Tomás Criado's (2017) reflections on his personal experience in both highly fluid and highly institutionalized STS spaces.

## REFERENCES

Estalella, A., Ibáñez Martín, R. & Pavone, V. (2013) Prototyping an Academic Network: People, Places and Connections. Three Years of the Spanish Network for Science and Technology Studies. *EASST Review* 32(1): 4-6.

López, D. (2006). La teleasistencia domiciliaria como extitución. Análisis de las nuevas formas espaciales del cuidado. In F. J. Tirado & M. Domènech (Eds.), *Lo social y lo virtual : Nuevas formas de control y transformación social* (pp. 60-78). Barcelona: Editorial UOC

Raasch, J. (2015). STS in Grants and CVs: Dealing with Differences. *EASST Review* 34(4): 4-5.

Sanchez Criado, Tomás (2017). Two crises in and with STS: From 'translation' to 're-specification'? Blog post: <https://tscariado.org/2017/06/23/respecification/>

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STS LIVE

# FROM A POLITICS OF DIFFERENCE TO A POLITICS OF SAMENESS, AND BACK!

Amade M'charek

There are conspiracy theories, climate change denials, creationists, or, evangelic and Muslim evolution-denials to be precise, and, there are alternative facts. So why are we interpellated by the latter so fiercely? Why are we intellectually moved and politically mobilized. Or, why am I alarmed by this notion, I kept asking myself?

Alternative facts demand a response from academics and STS scholars in particular. Partially this has to do with the power of words. Their power to structure reality. The power to align disperse and desperate politics and moods under one banner: alternative facts. It is a potent notion that has organized rightwing politics as well as its responses, such as the Marches for Science, or, this special section.

Alternative facts demand a response also because of the particular era that we find ourselves in these days. An era of growing xenophobia, racism, sexism and populism, not in the margins of democratic societies, but at the very heart of mainstream discourse and political debates. An era characterized also, by radical changes in the sociopolitical order, both in the 'peripheries' of EuroAmerican empires and at home. A move towards the neoliberalisation of everything with the dwindling of fundamental rights as its effects.

And as you read these words, I can hear you think: So, what's to be done? Should we hit the street and go save the world, or at least take it for repair? Yes. But, not all of us and not all the time! But it is vital to see that the very practice of protesting, in whichever version, is a mode of experimenting, testing and innovating the very architecture of democracies (e.g. Mouffe 2000). It is a mode of practicing political subjectivities as well as a mode of imagining and chanting, collectively, worlds and lives otherwise (e.g. Blaser 2014).

While I cannot believe I have put these words to paper, here, in this forum, I mean every word of it. But there is more, much more, and that is why it has been an enormous struggle to produce this intervention on alternative facts.

The talk of alternative facts did not only perform me as a political subject, it also helped to me to appreciate 'our' institutions and value them as *singular entities*. For, alternative facts are first and foremost, a fierce attack on democratic institutions. And as we know, the suspicion placed on institutions is quickly translated onto the people who work there. For example in January this year Pieter Duisenberg, a Dutch Member of Parliament for the conservative liberal party VVD, submitted a resolution in which he requested that the political inclination of Dutch academics be investigated, because he was of the opinion that Dutch academia was too leftist. His resolution received the support of the majority in parliament and the requested study is currently underway. The assumption of this resolution is that the trustworthiness of knowledge is contingent upon the political color of the scholars, - there might be alternative facts - therewith reducing institutions and knowledge to a matter of people and their worldview. It is crucial to see that this reduction makes the sedimented and collective work that goes into building institutions and making them work, invisible, leading to their vulnerability and the risk of them being closed down.

Alternative facts are obviously made somewhere and thrown at us by someone (even if this someone is a robot), but they can only exist as free-floating entities because any institutionalized mode of knowledge production undermines their factuality. While obscuring their provenance they have to circulate at high speed to achieve traction and become real. Alternative facts feed off velocity. Institutions by contrast, are bureaucratic settings that are there to slow down our doings, including our thinking. They slow down our movements, because they are in the business of producing sameness (to which I will return below). Now, there is no need to romanticize them, because institutions can sometimes also stop our



possibilities to think altogether. And this not the place either to engage in problems with institutional racism, sexism and classism, to name a few. Rather I want to think briefly with the singularity of institutions.

As said, alternative facts scare me to death, precisely because they are part of a growing “attack on the social order” (Sørensen 2017, previous volume). They project a vision of hollowed out institutions. It is obvious that any institution is a complex configuration and I am here glancing over dazzling multiplicities, when simply speaking of it just like that. Yet, I want to suggest that just like Helen Verran has argued for numbers (2017), also institutions, despite their multiplicity, insist on taking singularity seriously. Their singularity is key, because the bureaucratic machine of institutions, their standards, protocols, and procedures are aimed at producing sameness. To be sure we are not talking identity here, but rather a sameness that is probably best captured as evolving fractal patterns. They are key in producing what we tend to call the common, or with Isabelle Stengers (2015) ‘commoners’, sharing not goods but concerns. The task of democratic institutions is to facilitate sameness of sorts, either in the form of education and the diploma’s that are its results or a juridical system with the eventual ruling of the judge. Again, I am not blind to persisting inequalities, yet I find it key to articulate what it is that we value about our institutions, and how to ‘respect their singularity’ (Verran 2017). Where singularity is by no means the same as totality or wholeness. For, while the aim is to produce sameness, our institutions not only work on differences, they also produce differences. The challenge is what stories we can devise to talk about the good of institutions without neglecting the bad.

While in STS we have attended importantly and productively to differences, sameness has largely been overlooked. This contributes to the idea that difference is produced while sameness is given. This attention has also led to a political sensibility for differences (think of race or sex-differences) whereas sameness seems curiously apolitical. But how does sameness come about? What is the stuff of sameness? I contend that raising this question does not simply produce the binary-other of difference, but allow us to attend to other configurations of the social and to foreground other normativities. It allows us, e.g., to weigh and value the different kinds of sameness that institutions help to produce. It seems to me that attending more carefully to sameness might also help to find an answer to versions of populist politics that quintessentially builds on notions of sameness (nationalism, us, or them). If sameness is not simply a baseline of human condition or an original state of social groups, we need to take account of how different versions of sameness come about as well as the series of differences they presupposes.

## REFERENCES

- Blaser, Mario (2014) ‘Ontology and indigeneity: on the political ontology of heterogeneous assemblages’. *Cultural Geographies*. 21:49–58
- Mouffe, Chantal. (2000). *The Democratic Paradox*. New York, NY: Verso.
- Sørensen, Estrid Sørensen (2017) ‘The social order of facts vs. truths’, *EASST Review*. 36(1) April 2017.
- Stengers, Isabelle (2015) *In Catastrophic Times: Resisting the Coming Barbarism* (Open Humanities Press/Meson Press, 2015)
- Verran, Helen (2017) ‘Concepts and Re-Presentations in Ethnography’, talk delivered in a workshop on the use of concepts between different knowledge traditions and between writing and field, Department of Anthropology, University of Amsterdam (23 February 2017).



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# WHAT CAME BEFORE POST-TRUTH?

Kregg Hetherington

To call the political moment “post-Truth” implies a recent past governed primarily by something called “Truth.” This should immediately conjure some scepticism, but perhaps it isn’t that far-fetched. At the very least, the decades following the end of the Cold War brought us a series of premises about governance based on empirical knowledge. Three keywords in particular, Transparency, Information and Knowledge, ruled 1990s development discourse. Transparency emerged from the collapse of the Soviet Union, and the argument that tyranny was best prevented by making the workings of the state visible to citizens. Information harnessed the promise of new technology, particularly the Internet, in generating new economic and political rationality. And Knowledge was about the decline of the manufacturing economy in Europe and North America, and the increasing economic importance of what many hopefully called the “knowledge economy.” Later we would get “evidenced-based” governing, and the many promises of Big Data. These terms came from different places, but they are the sorts of concepts that, if one squints a bit, all relate to our expanding ability to know the world accurately. In the anxious floundering of the post-Truth era, I think this is what many have retroactively come to think of as “Truth.”

In order to take a bit of distance from this proposition about the relationship between knowledge and government, we might call it “truth politics.” The rider reminds us that this attitude, while it presents the relationship between truth and freedom as universal, responds to a certain constituency, situated in time and space, and requiring adversaries. As Graham Harman<sup>1</sup> has pointed out, both the left and right have their brands of truth politics, which deny their own particularity and claim to transcend mere agonism. But in the decades following the Cold War, liberals have become the undisputed masters of forgetting their own particularity. Although I am primarily referring in this post to the North American experience, where the collapse of effective alternatives made it possible for many liberals to genuinely believe that politics had ended, a version of it also operates in continental Europe, where the opening of borders and unification of currency (among other standards) were seen as flowing naturally from the fall of the Berlin wall. So hegemonic had this conception of politics become in the 1990s and 2000s that it rarely described itself with direct reference to the “truth.” And this is what makes the declaration of post-truth so revealing: it retroactively reveals the epistemological stakes of a politics that had forgotten it was political.

Post-Truth might then be thought of as a revival of temporarily-suspended Cold War anxieties. In the US, this story even includes the ambivalent re-emergence of Russia as a singularly problematic political adversary. The give-away here is the sudden popularity of Orwell’s *1984*, now on US bestseller lists again, and even back on Broadway. *1984* is a curious analog for the present-day America. It’s not really about a Trump-like country, led by a schoolyard bully who disregards facts and science, but about totalitarianism, in which a faceless state destroys both freedom and knowledge by undermining its citizens’ capacity to think rationally. Bill Pietz<sup>2</sup> argued in 1988 that this largely fictional view of totalitarianism was the ideological cornerstone of the Cold War because it projected liberalism’s antithesis onto the Soviet Union. But it did so as an extension of earlier fears of the dark colonies.

Despite his own well-known critique of British colonialism, Orwell’s image of totalitarianism was based on orientalist stereotypes, beginning with the notion of a subservient population incapable of rationality. In other works the link between Cold War thought and colonialism is even clearer. American historian and diplomat George F. Kennan argued that “‘totalitarianism’ is nothing other than traditional Oriental despotism plus modern police technology,”<sup>3</sup> and Hannah Arendt saw totalitarianism as a breaking-point for civilization, a reversion to “barbarism.”<sup>4</sup>

1 Harman, Graham, 2014. *Bruno Latour: Reassembling the Political*. London: Pluto Press.

2 Pietz, William, 1988. The “Post-Colonialism” of Cold War Discourse. *Social Text* 19-20(fall):55-75.

3 Pietz, 1988, page 58.

Behind the sudden interest in Orwell as a supposedly prescient analyst of the present, lie works like *Heart of Darkness*, in which liberals encounter some inscrutable other whose very inscrutability they fear might be nascent in themselves. Totalitarians and barbarians join a long list of what historian Uday Singh Mehta<sup>5</sup> calls liberalism's "constitutive exclusions," the outsider on whom liberalism depends to define its own epistemology. And like all universalist worldviews, liberalism contains a story about the resolution of its own contradictions. The *End of History*<sup>6</sup>, declared once at the beginning of the 19th century, and again in 1989, has been the messianic poison pill in liberalism since its beginning.

In light of this history of liberal anxiety, the era of Truth was a period of ideological complacency. Paul Gottfried calls what ensued "managerial liberalism,"<sup>7</sup> an ethos that engulfed much of the right and left in western democracies. At the end of history, liberals could content themselves with tweaking their righteousness rather than defending it against existential threats. As Emmett Ressin recently put it, "The most significant development in the past 30 years of liberal self-conception was the replacement of politics understood as an ideological conflict with politics understood as a struggle against idiots unwilling to recognize liberalism's monopoly on empirical reason."<sup>8</sup>

But as in the 19th century, the contradictions of liberalism were perhaps most easily seen in the global south. Once colonies, where liberals like John Stuart Mill advocated promoting enlightenment through conquest, by the 1990s they had become "developing countries" which could now be coaxed with more sophisticated carrots and sticks to enlighten themselves. Truth politics was supposed to have two very different effects in developing countries in the 1990s. First, increased government transparency was supposed to help countries transition out of authoritarianism and into more robust forms of democracy. Following Orwell's logic, it is the citizen armed with truth who is able to speak to power and wrest their rights from a government bent on controlling them through misinformation. The informed citizen is the enlightened citizen, who grasps truth and wields it against the state.

Second, the increased circulation of information was also supposed to generate growth according to a paradigm known as "information for development," popularized by Joseph Stiglitz when he ran the World Bank after a stint as Clinton's economic advisor.<sup>9</sup> This was based on the neoliberal argument that economic planning was bad because it was never possible to fully understand the economic variables at play in any given situation. Soviet and Keynesian economics suffered from the same hubris: that it was possible to know the economy and thereby control it. Thus development economists argued that economic growth, and optimal resource distribution, occurs primarily when no-one is in control of information and it is allowed to circulate as freely as possible.

These theories about why information is good for government and national economies are somewhat different. But they both serve the same purpose of policing liberalism's epistemological fortress. Together, the Truth era's international development policies explained both tyranny and underdevelopment as being not about the legacy of colonialism or the Cold War's proxy wars, but about mismanagement of information, about endemic cronyism, corruption and authoritarian culture.

It's therefore not at all surprising that Donald Trump's emergence in US politics would immediately inflame fears of some sort of outside influence. Comparisons of Trump to a "tin-pot dictator" make the colonial tenor of this anxiety obvious. The collective insanity drummed up by Russian interference in US institutions is even more telling, where Vladimir Putin represents both the return of both oriental despotism and Soviet information control. But for committed liberals, the real existential crisis comes from within—from the inscrutable Midwest, the working class—who supposedly vote "against their own interests," can't distinguish between truth and fiction, and are driven by emotion rather than rationality. In the American context, Post-Truth is really a story about the collapse of a geographic firewall between reason and unreason that liberals have held dear since the beginning of colonialism.

4 Arendt, Hannah 1951. *The origins of totalitarianism*. New York: Harcourt Brace.

5 Mehta, Uday Singh. 1999. *Liberalism and empire: A study in nineteenth-century British liberal thought*. Chicago: University of Chicago Press.

6 Fukuyama, Francis. 1992. *The end of history and the last man*. New York: Free Press.

7 Gottfried, Paul Edward. 2001. *After liberalism: Mass democracy in the managerial state*. Princeton University Press.

8 <https://lareviewofbooks.org/article/the-blathering-superego-at-the-end-of-history/>

9 World Bank. 1998. *World Development Report 1998/1999: Knowledge for Development*. New York: Oxford University Press

None of this is to say that there isn't something quite frightening occurring in way Trump, and other resurgent political movements appear to be using new forms of communication in the service of a violent worldview. But I doubt that it is particularly useful to think of this as post-Truth, and certainly not to bemoan STS's role in undermining the status of certain kinds of knowledge. In an earlier contribution to this Review,<sup>10</sup> Estrid Sørensen reminds us of the longstanding distinction in the social study of science, between truth and facts. STS has never had much interest in Truth, per se, except perhaps as a foil for facts. What is frightening about a figure like Trump, she argues, is not that he is post-truth, but rather that he doesn't seem concerned with facts. But this should have little effect on social science's commitment to questioning truth politics, even among allies, wherever it occurs. As Harman<sup>11</sup> usefully points out, one of the greatest political contributions of STS, and new materialisms more generally, is to offer us ways to respond in the world that don't fall back on a clear-cut dichotomy between truth politics and power politics (or, by extension, between managerial liberalism and fascism). That contribution, it seems to me, is needed now more than ever.

10 <https://easst.net/article/the-social-order-of-facts-vs-truths/>

11 Harman 2014.

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# NOT A VERY SLIPPERY SLOPE: A REPLY TO FULLER

Sergio Sismondo

Steve Fuller (2017) argues that STS has set the stage for a post-truth world, but has then stepped back, distancing itself from everything post-truth. I'm his primary target, having explicitly argued for the distance (Sismondo 2017a).

Fuller sets out four "tropes", for which he credits STS, and labels them "common post-truth tropes". I'll make a distinction among them, but I argue that none of them are common post-truth tropes, and the ones for which STS should take credit sit at some considerable distance from the post-truth.

The first of Fuller's tropes is:

1. Science is what results once a scientific paper is published, not what made it possible for the paper to be published, since the actual conduct of research is always open to multiple countervailing interpretations.

In this, Fuller presents us with a version of the old distinction between the context of discovery and the context of justification, adding an interpretive twist. This one doesn't belong to or in today's STS, a field that has invested enormous amounts of time to studying the actual conduct of research. While we might join Fuller in rejecting any ideas of a scientific method, that is hardly the same thing as rejecting as relevant to science everything that occurs before publication. Where would he leave STS's many detailed studies of the practices of scientific research? Where would he leave STS's many detailed studies of the materiality of scientific research? Our field integrates materials, tools, practices, infrastructures, rhetorics, epistemes, institutions and more, but Fuller's purposes are served by restricting his attention dramatically. Science, for Fuller, appears to be a discursive activity.

Thus the first trope sets the stage for a specific reading of his others. On these, I'm happy to agree about the central ideas behind them, and to agree that these are distinctively STSish ideas. Let me rewrite them, though, without Fuller's extravagant flourishes and suggestive asides:

2. Accepted scientific truths are contingent.
3. Consensus is contingent, the result of effort.
4. Normative epistemic categories are contingent.

The way that STS has tended to develop them, this family of important and valuable themes doesn't amount to an endorsement of or support for a post-truth era. The diverse inputs into stable technoscientific orders to which STS pays attention, those materials, tools, practices, infrastructures ... and more, mean that scientific contingency is not at all like the apparent contingency of current popular political beliefs. For example, in the current issue of *Social Studies of Science*, there are studies of the practices of handling blood donations (Berner and Björkman 2017), valuing life (Hood 2017), and monitoring deforestation (Monteiro and Rajão 2017), all of which highlight alternatives. Like most other empirical studies in today's STS, even where these examples focus on interpretation – which they do – they attend to skills, tools and infrastructures, as well as established practices, rhetorical moves and professional pressures. The creation of stable technoscientific orders is complex.

Meanwhile, as I claimed in the editorial to which Fuller takes exception (Sismondo 2017a), and somewhat more fully argue in another response to critics (Sismondo 2017b), the most exemplary episodes of post-truth behaviour involve a narrow range of resources – almost entirely discursive – to establish widespread beliefs. They involve rumours with emotional appeal, spread via alt-right websites, Twitter campaigns, and commentaries on quasi-mainstream media. Although they can have durability and lasting effects, it's interesting that these rumours can collapse

as quickly as they arise. The pizzagate conspiracy theory (about a Hillary Clinton-led sex trafficking ring headquartered in a Washington pizzeria) mostly died when a would-be fan tried to investigate it with a high-powered rifle, finding no evidence and nearly injuring some of the pizzeria's patrons. The birther conspiracy theory (that Barack Obama had been born in Kenya) became sidelined as soon as President Obama ceased to have real power.

In a survey of what commentators are writing about post-truth, my research assistant Heather Poechman and I identified five themes, based on our readings of the 60 most prominent distinct sites on Google on which commentators characterized the "post-truth" or the "post-truth era" (Sismondo 2017b). These, I submit, have a better claim to being "common post-truth tropes" than the ones Fuller listed:

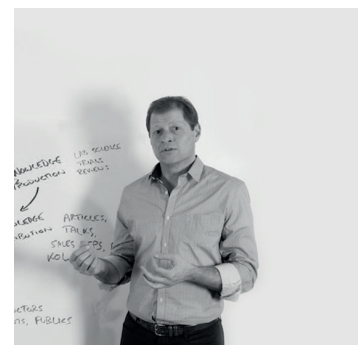
1. The emotional resonances and feelings generated by statements are coming to matter more than their factual basis.
2. Opinions, especially if they match what people already want to believe, are coming to matter more than facts.
3. Public figures can make statements disconnected from facts, without fear that rebuttals will have any consequences. Significant segments of the public display an inability to distinguish fact and fiction.
4. Bullshit, casual dishonesty and demagoguery are increasingly accepted parts of political and public life; this should not, however, be confused with ordinary lying, which is nothing new.
5. There has been a loss of power and trust in traditional media, leading to more fake news, news bubbles and do-it-yourself investigations.

I am hard-pressed to see why we should connect STS's emphasis on and careful studies of contingency with any of these themes. From the constructedness of science to the bullshit of post-truth politics, the slope is long and slight, and, with a good pair of walking shoes, not particularly slippery.

## REFERENCES

- Berner, B. and M. Björkman (2017). Modernizing the Flow of Blood: Biomedical Technicians, Working Knowledge and the Transformation of Swedish Blood Centre Practices. *Social Studies of Science* 47(4): 484-509.
- Fuller, S. (2017) Is STS all Talk and no Walk? *EASST Review* 36(1): 21-22.
- Hood, K. (2017) The Science of Value: Economic Expertise and the Valuation of Human Life in US Federal Regulatory Agencies. *Social Studies of Science* 47(4): 441-465.
- Monteiro, M. and R. Rajão (2017) Scientists as Citizens and Knowers in the Detection of Deforestation in the Amazon. *Social Studies of Science* 47(4): 465-483.
- Sismondo, S. (2017a) Post-truth? *Social Studies of Science* 47(1): 3-6.
- Sismondo, S. (2017a) Casting a wider net: A reply to Collins, Evans and Weinel. *Social Studies of Science* 47(4): 588-595.

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STS MULTIPLE

**DET TEKNOANTROPOLOGISKE LABORATORIE (TANTLAB) PÅ AALBORG UNIVERSITET I KØBENHAVN HAR SIDEN 2015 FUNGERET SOM SAMLINGSPUNKT FOR ARBEJDET MED DIGITALE METODER BLANDT FORSKERNE PÅ TEKNOANTROPOLOGI, INSTITUT FOR LÆRING OG FILOSOFI, AAU. TANTLAB BLEV GRUNDLAGT MED AFSÆT I FLERE ÅRS FORUDGÅENDE ARBEJDE MED AT FORSKE OG UNDERVISE I DIGITALE METODER, IKKE MINDST PÅ BACHELOR- OG KANDIDATUDDANNELSERNE I TEKNOANTROPOLOGI PÅ AAU. SAMTIDIG BLEV LABBET GRUNDLAGT FOR AT FACILITERE EN VOKSENDE PORTEFØLJE AF SAMARBEJDSRELATIONER MED AKTØRER UDEN FOR UNIVERSITETET. TANTLAB HAR EN BEVIDST LEGENDE ATTITUDE I DENNE POSITION MELLEM FORSKNING, UNDERVISNING OG EKSTERNT SAMARBEJDE - UDTRYKT I SLOGANET 'DEN TEKNOANTROPOLOGISKE LEGEPLADS'. EN FORDEL VED LEGEPLADS-METAFOREN ER, AT DEN PEGER PÅ HVORDAN MAN TAGE INDGÅ I LEGEAFTALER OG VENSKABER FORMET PÅ FORSKELLIGE MÅDER, HVOR DER ER NOGET PÅ SPIL, SAMTIDIG MED AT LEGEN ER EKSPLOLATIV OG SJOV. SAMARBEJDET MED FORSKELLIGE AKTØRER FREMHÆVER OGSÅ SPØRGSMÅLET OM HVORDAN VI SOM STS-FORSKERE INTERVENERER I VERDEN MED VORES ARBEJDE. TANTLAB ARBEJDER IKKE MED ÉN RIGTIG MODEL FOR DIGITALE INTERVENTIONER, MEN ER ET RUM HVOR PRAKTISKE ERFARINGER OG REFLEKSIONER FØLGES AD. I DENNE PRÆSENTATION AF LABBET GIVER VI FEM EKSEMPLER PÅ PROJEKTER VI HAR VÆRET INVOLVEREDE I OVER DE SENESTE ÅR. PROJEKTERNE SPÆNDER VIDT OG VIDNER OM FORSKELLIGE ERFARINGER MED SAMARBEJDE OG INTERVENTION - FRA EN DATASPRINT OM FEDME MED ANDRE FORSKERE TIL EN FACEBOOK-DREVET INTERVENTION I AALBORG KOMMUNES PROCES OMKRING FOLKESKOLEREFORMEN. SÅLEDES HÅBER VI AT HAVE ILLUSTRERET HVAD VI MENER MED AT TANTLAB ER EN TEKNOANTROPOLOGISK LEGEPLADS.**

#### **TANTLAB FACT SHEET:**

Who: The lab comprises members of the Techno-Anthropology Research Group

What: A digital methods lab that works at the intersection between STS and participatory design.

Where: The lab is located at Aalborg University's Copenhagen campus on A. C. Meyers Vænge 15, DK-2450 Copenhagen SV, Denmark.

Follow us

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# PLAYGROUNDING TECHNO-ANTHROPOLOGY

Mette Simonsen Abildgaard, Andreas Birkbak, Torben Elgaard  
Jensen, Anders Koed Madsen, Anders Kristian Munk

**SINCE 2015, TANTLAB HAS SERVED AS HUB FOR EXPERIMENTATION WITH DIGITAL METHODS AMONG THE RESEARCHERS IN THE TECHNO-ANTHROPOLOGY RESEARCH GROUP AT THE DEPARTMENT OF LEARNING AND PHILOSOPHY. TANTLAB WAS FOUNDED ON THE BASIS OF SEVERAL YEARS WORK ON RESEARCHING AND TEACHING DIGITAL METHODS, NOT LEAST FOR THE BACHELOR AND MASTER PROGRAMS IN TECHNO-ANTHROPOLOGY AT AAU. AT THE SAME TIME, THE LAB WAS FOUNDED TO FACILITATE A GROWING PORTFOLIO OF COLLABORATIVE RELATIONSHIPS WITH NON-UNIVERSITY ACTORS. TANTLAB HAS ADOPTED A DELIBERATELY PLAYFUL ATTITUDE IN THIS POSITION BETWEEN RESEARCH, TEACHING AND EXTERNAL COOPERATION - EXPRESSED IN THE SLOGAN 'THE TECHNO-ANTHROPOLOGICAL PLAYGROUND'.**

The Techno-Anthropological Laboratory (TANTLab) was founded in 2015 as a response to what we saw as a growing need to road test digital methods and its associated styles of analysis with non-university partners. Located as part of the Techno-Anthropology Research Group at the Department of Learning and Philosophy at the University of Aalborg in Copenhagen, and thus part of thriving research and educational programmes in STS, we had been developing an interest in digital methods over a period of five years. These methods were relatively new to STS, where they had been developed under headings like issue mapping and digital controversy analysis (Marres & Rogers 2005, Venturini 2010). At the same time, STS more broadly had been asking itself how it means business and what kinds of interventions it wants to make. Our intuition was that digital methods in STS were now coming sufficiently of age to answer some of these questions more directly and in practice.

From the very beginning we decided to signpost this mission with two words: laboratory and playground. We called ourselves TANTLab and we adopted the tagline *The Techno-Anthropological playground*. In the following we will try to convey our sense of what it means to be a laboratory-playground.

## LABS AND SERIOUS PLAY

We live in the age of labs. For someone taking an outside look at Academia these days, it quite possibly seems as if we've all contracted a contagious case of 'laborangitis'. A new lab springs to life almost on a weekly basis (Smith et al. 2013, Ehn et al. 2014). On the relatively small campus of Aalborg University Copenhagen, we can think of at least 6 entities that call themselves labs, including a biotech lab, a food lab and a lab for physical prototypes.

Visitors coming to the TANTLab are not greeted by classic lab equipment. We have no petri dishes or microscopes, no animal models or bunsen burners, and no strangely looking blackboxed pieces of equipment. The physical space of TANTLab is a relatively conventional place - a room with screens, tables and chairs. You will find students mingling with researchers, and academics mingling with practitioners. You will hear people claiming to be makers and doers first, and thinkers or critics second, people claiming to be designing things, prototyping things, exploring and experimenting with things, although often 'digital' things that are only visible on screens and on large print-outs attached to the walls.

When you walk down the hallway, you will see the lab's tagline in bold print on the glass wall: *the techno-anthropological playground*. It is only fair to ask if it is all fun and games?

Our response is that laboratories are indeed serious business. But so are playgrounds. Anybody who remembers being 5 or sending their kids off to kindergarten for the first time will know this instinctively. The transition from playing on your own, or under the close supervision of an adult, to holding your own against peers your own size, age and ferocity is a tough and challenging experience. And it takes place on playgrounds.

At the techno-anthropology lab we contribute to a young degree programme – only 6 years of age, in the middle of kindergarden, in fact – and we face all sorts of formative playground trials all the time. Our students face them in the college bar late at night, or at the family dinner, talking to that friend or relative who got into anthropology proper or decided to become a doctor: 'So, what exactly is a "techno-anthropologist"? They face it at their job interviews and when they negotiate a semester project with a company or a public agency.

Our researchers face it when they justify themselves to their colleagues in more established disciplines. But they also, and increasingly, face it when they strive to translate the societal relevance of their findings and methods. And, not least, our collaborators and future employers face it when they have to decide if we are worth playing with?

An age old tactic of the playground is of course to rely on your friends and your older siblings, if you have any. At the techno-anthropology lab we draw inspiration and support from fields like Science and Technology Studies, Digital Methods and Co-Design.

The trouble with siblings, however, is that they are not always there. Try walking into a job interview and rely on Science and Technology Studies to cover your back. It's not bullet proof.

We – students, researchers, collaborators – need to work actively with how we are playgrounding techno-anthropology. That is the idea of the techno-anthropology lab.

## THE BENEFITS OF PLAYGROUNDS

Playgrounding, or playground design, is actually a sprawling professional field now. In a recent paper on "The developmental benefits of playgrounds" Frost et al. note that:

"Among the benefits of unstructured outdoor play (...) are the abilities to make decisions, work and play within a community of others, and to try out ideas and explore the play environment. Also highlighted are the benefits of pretend play, which has recently been shown to further the development of brain synaptic connections. (...) "If children lack opportunities to pretend, their long-term capacities related to critical thinking, problem solving, and social functioning, as well as to academic areas such as literacy, mathematics, and science, may be diminished." (Frost et al. 2004)

That is surely something worth striving for! As a collateral bonus, the authors add that:

"Besides the social and academic benefits of play, research indicates that children with play opportunities are not likely to be depressed and hostile and generally do not exhibit excessive fear, rage, and worry." (ibid.)

What is not to like?

The crux of the matter seems to be that good playgrounds have to be thought through. A little bit of playground history is instructive here. The idea originated in Germany in the mid 1800s but only spread at the beginning of the 20<sup>th</sup> century. Here is what president Roosevelt had to say about the matter in 1907:

"City streets are unsatisfactory playgrounds for children because of the danger, because most good games are against the law, because they are too hot in summer, and because in crowded sections of the city they are apt to be schools of crime. Neither do small back yards nor ornamental grass plots meet the needs of any but the very small children. Older children who would play vigorous games must have places especially set aside for them; and, since play is a fundamental need, playgrounds should be provided for every child as much as schools."

You will notice that there is a classic dilemma lurking between the lines: How do you design something that is supposed to afford games, that are vigorous and likely to be against the law? Can you even design play?

Actually, we have quite a tradition for it in Denmark. The landscape architect Carl Theodor Sørensen pioneered the concept of the adventure playground, or junk playground, in the 1940's. He wanted to create imaginative environments, building on the pragmatist ideals of John Dewey. As pointed out by Kozlovsky, in a paper from 2008, it was the imagination of the child, not the architect, what Dewey would have called inquiry, that was supposed to unfold. We believe that is a good ideal to adhere to for a playground.

Carl Theodor Sørensen later said that: "of all the things I have helped to realise, the junk playground is the ugliest; yet for me it is the best and most beautiful of my works." (Kozlovsky 2008: 7)

It seems essential that playgrounding is about coming out. That it is about doing things with others, rather than on your own. At the lab we are trying to do that with our students, for instance, making sure not only that they work problem based – or simply with other people's problems – in concrete collaborations every semester, but also that this work is sign posted on our website as part of building a techno-anthropological identity.

And of course, when you play, you get invited home on play dates. We see this as a great opportunity. One of the things we did was to assist the municipality of Aalborg in developing a Facebook driven vision for the future of their schools. Going to other people's locations and work spheres means learning to play by other people's rules while honing and fine tuning your own position. The learning potentials are enormous, we think.

Often times, and again this is conveniently equivalent to actual playgrounds, this learning involves the simultaneous development of our imagination and our motor skills. At the techno-anthropology lab we work with a range of cutting edge techniques for harvesting and analysing large amounts of digital online traces. That is an ongoing process of acquiring tools and skills, while constantly maintaining a critical and imaginative perspective on their potential applications. And that is best done in a lab setting. It is together with other people's problems, so to speak, that the strengths and weaknesses of new methods can crystallize.

## STYLES OF PLAY

On playgrounds, including ours, certain styles of play tend to emerge over time. Sometimes these styles are clearly demarcated. Kids who play football would NEVER join the roleplay with their younger siblings. In our case, the emerging styles of play overlap both in terms of participants, tools and ideas. And yet we can distinguish at least four different genres.

### *Re-tooling ethnography*

This game explores how traditional ethnographic approaches such as interviews and participant observation can be enriched or challenged in conversation with analysis and visualization of large datasets, and vice versa.

### *Participatory Data Design*

This game explores how digital methods can enter into collaboration with actors who are already substantially engaged in particular fields or issues. We engage the actors, whom we call issues experts, to understand the problem of the field,

and together we explore. Instead of just looking at data together, we take inspiration from participatory design methods and pursue the idea that decisions about datafication, filtering, analysis and visualization are never 'just' technical but more often where the scope and limitations of the project is laid down and blackboxed. We work actively with the data sprint format to facilitate participation in the early stages of a data project.

#### *Media publics and democracy*

This game is about assisting democracy. It presumes that new media has a variety of consequences for democratic practice and the formation of public opinion, some of which are adverse. The game is about providing meaningful interventions. It necessitates an ongoing discussion about normative commitments to particular styles of public deliberation and the goods that result from such commitments.

#### *Critical metrics in organizations*

This is a valuation game. It is about providing alternative metrics to help organizations make the quality of their activities visible in new ways. It draws on valuation studies and the sociology of markets to assert that the perception of quality depends on the devices available to perform it. Under an evidence based policy paradigm, to be critical can arguably be done at a distance or in proximity with the business of doing evidence (cf. Latour 2005; Birkbak et al.). This game pursues the latter option and embeds with the organization to do evidence in new ways.

### **SNAPSHOTS FROM THE PLAYGROUND**

In the following texts we present a set of case examples that illustrate the diversity of play from our first two years of operation. We have selected them to provide a tangible idea of what our playgrounding looks like in practice - the collaborators we engage with, the digital tools we deploy, and the emerging styles of play.

### **REFERENCES**

- Birkbak A, Petersen MK and Elgaard Jensen T (2015) Critical Proximity as a Methodological Move in Techno-Anthropology. *Techné: Research in Philosophy and Technology* 19(2): 266-290.
- Ehn P, Elisabeth M, Nielsson EM & Topgaard R (2014) *Making Futures: Marginal notes on innovation, design and democracy*. Cambridge, MA: MIT Press.
- Frost JL, Brown PS, Sutterby JA and Thornton CD (2004) *The developmental benefits of playgrounds*. Olney, MD: Association for Childhood Education International.
- Kozlovsky R (2008) Adventure playgrounds and postwar reconstruction. In: Gutman M and Ning CS (eds) *Designing Modern Childhoods: History, Space and the Material Culture of Children: An International Reader*. Rutgers Series in Childhood Studies.
- Latour B (2005) *Critical Distance or Critical Proximity*. Unpublished manuscript. Available at <http://www.bruno-latour.fr/sites/default/files/P-113-HARAWAY.pdf>. Accessed March, 31, 2014.
- Marres N and Rogers R (2005) Recipe for Tracing the Fate of Issues and their Publics on the Web," In: Latour B and Weibel P (eds) *Making Things Public*, Cambridge, MA: MIT Press. pp. 922-35.
- Smith A, Hielscher S, Dickel S, Soderberg J, and van Oost E (2013) *Grassroots digital fabrication and makerspaces: Reconfiguring, relocating and recalibrating innovation?* University of Sussex: SPRU Working Paper Series.
- Venturini T (2010) Diving in magma: How to explore controversies with actor-network theory. *Public understanding of science* 19(3), 258-273.

# FIVE RECENT PLAY DATES

Mette Simonsen Abildgaard, Andreas Birkbak, Torben Elgaard Jensen, Anders Koed Madsen, Anders Kristian Munk

**AN ADVANTAGE OF THE PLAYGROUND METAPHOR IS THAT IT COMES WITH THE ACTIVITY OF GOING OUT ON 'PLAY DATES' AND DEVELOPING FRIENDSHIPS. IN SUCH PLAYFUL RELATIONSHIPS, THERE IS ALWAYS SOMETHING AT STAKE, BUT THE INTERACTION IS ALSO FUN AND INHERENTLY EXPLORATORY. IN THE FOLLOWING, WE TAKE A TOUR OF FIVE RECENT COLLABORATIVE PROJECTS THAT THE TANTLAB HAS PARTICIPATED IN. THE PROJECTS DIFFER WIDELY AND TESTIFY TO DIFFERENT EXPERIENCES WITH COLLABORATION AND INTERVENTION - FROM A DATA PRINT ON OBESITY WITH OTHER RESEARCHERS TO A FACEBOOK-DRIVEN INTERVENTION IN AALBORG MUNICIPALITY'S PRIMARY SCHOOL REFORM. THUS, WE AIM TO ILLUSTRATE WHAT WE MEAN BY TANTLAB AS A TECHNO-ANTROPOLOGICAL PLAYGROUND.**

## RE-TOOLING CULTURAL RESEARCH ON INSTAGRAM

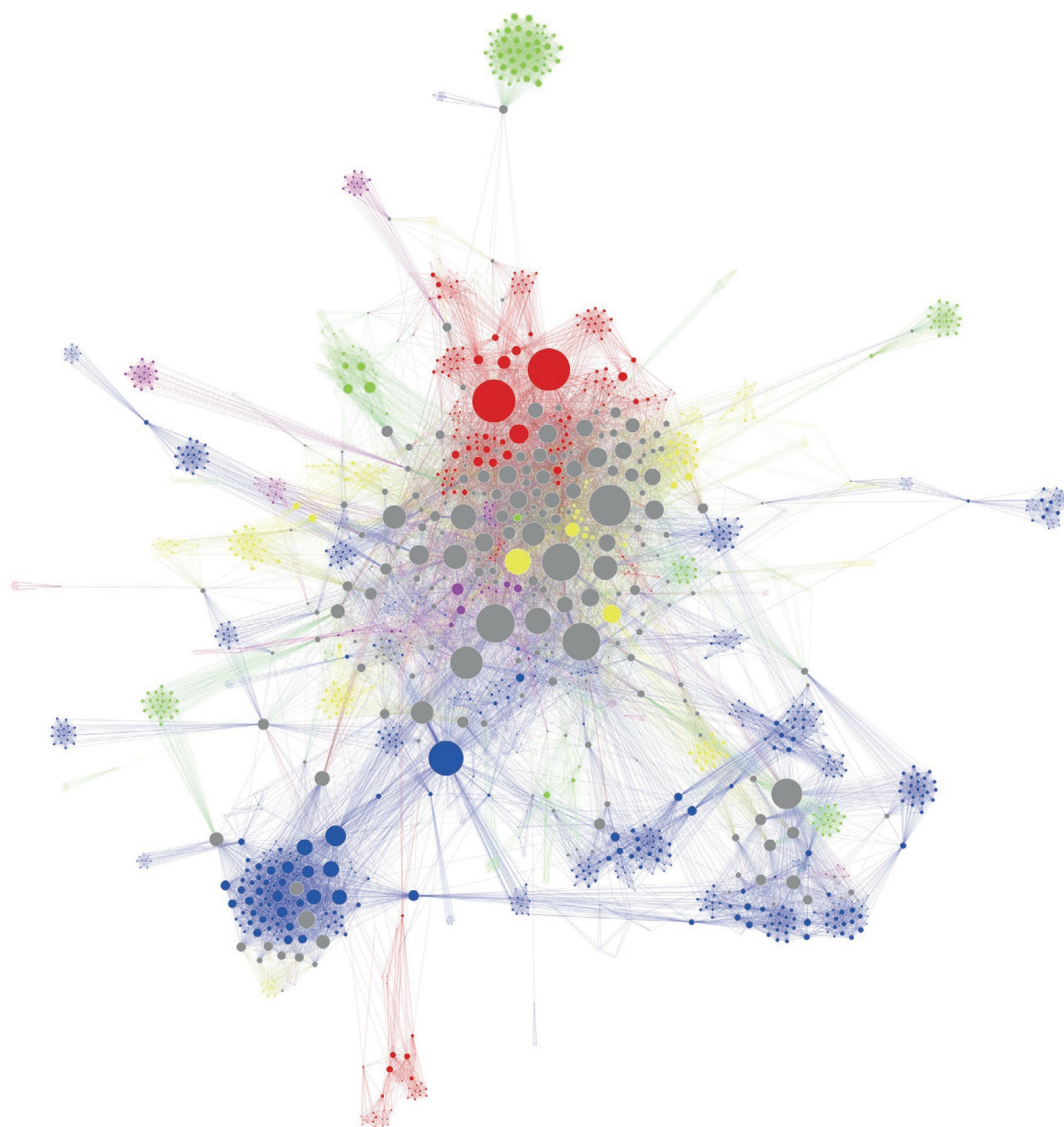
A visit to the playground inevitably entails that one kid that brought along a cool new toy. She or he will usually succeed in getting the attention of most of the playground - for a while at least. While new toys, or tools, may cause frustration as they inevitably disturb the way play used to unfold, they can also lead to experiments that merge familiar games with new ways of playing. In our introduction, this genre of laboratory play was given the headline 'Re-tooling ethnography'.

An example of such work is a data sprint in 2015 where we worked with an interdisciplinary group of researchers from the Governing Obesity project at the University of Copenhagen (<http://go.ku.dk/>) on how to appropriate the social medium Instagram as a tool for cultural analysis. A theoretical point of departure was the notion 'obesogenic environment' as "the sum of influences that the surroundings, opportunities, or conditions of life have on promoting obesity in individuals or populations" (Swinburn et al. in 1999), which has led to researchers study which and how everyday settings and practices relate to obesity. We drew on a harvest of 82,449 geo-tagged instagrams from the five local authorities in England that reported the lowest average BMI, and five that reported the highest.

In a subsequent paper on the sprint (Munk et al, 2016), we presented three suggestions for how Instagram data can be of use for cultural research on obesity. The two first approaches entailed traditional ways of conceptualizing the obesogenic environment. The first by encouraging researchers to view 'Instagram as a camera' - as a way of gaining visual information about the environmental factors that might influence individuals. The second by approaching 'Instagram as part of the environment' - as part of user's everyday practices, almost inevitably leading to field research beyond the medium to gain information on how Instagram gives and holds meaning in everyday life.

The third approach, however, suggests that it is impossible to understand Instagram and its users as separate from their environments. Practices such as composing photos, tagging and commenting are not just content production, but analytical practices performed by Instagram's users, thus working with 'Instagram as analyst'. We therefore moved from an exploration of the productions of individual users to an exploration of co-occurring hashtags (that occur in the same post). In such an exploration, a network of hashtag relations was generated, where the tags were interpreted as part of different communities.





The figure above shows such a network of co-occurring Instagram hashtags in the five high BMI areas. Nodes are colored by local authority (grey nodes representing occurrence in multiple authorities) and sized by degree (representing volume of co-occurrences with other hashtags). The graph was spatialized in Gephi with a force vector algorithm, showing communities of hashtags frequently used together as visually clustered. Especially those hashtags that were 'media-syncretic', i.e. used across all ten areas, proved an interesting qualitative context that speaks to a difference in what is instagrammable (deserving of these tags) between geographic sites. The approach provided a promising alternative method for obesity research on Instagram in a cultural analytical context.

#### REFERENCES:

- Munk AK, Abildgaard MS, Birkbak A and Petersen MK (2016) (Re-)Appropriating Instagram for Social Research on Obesity: Three Methods for Studying Obesogenic Environments. *Proceedings of the 7th 2016 International Conference on Social Media & Society*, 1–10.
- Swinburn B, Egger G and Raza F (1999). Dissecting Obesogenic Environments: The Development and Application of a Framework for Identifying and Prioritizing Environmental Interventions for Obesity. *Prev. Med.*, 29, 6 563-570. DOI=10.1006/pmed.1999.0585.

**MAKING THE VALUE OF FINE ART VISIBLE:****A DATASPRINT WITH THE ROYAL THEATER**

In August 2016, we did a one-week datasprint with The Royal Theater of Copenhagen. The background of the sprint was that the theater experienced a shift in the way they could account for the worth of fine arts in negotiations with politicians and sponsors. Whereas stories and anecdotes had previously been sufficient, the employees found themselves increasingly challenged to 'show' their value. For instance, it was no longer enough to claim that the Theater "occupied a specific place in the culture landscape" and had specific "emotional bonds to its audience".



The aim of the data sprint was to experiment with new ways of datafying such claims. Since both claims are relational – they say something about The Royal Theater's position in a broader landscape – we thought that digital methods might offer more interesting forms of visibilities than the focus group, which the employees had previously worked with. More specifically, we thought that a visualization of the way Copenhagen' culture users interact with Facebook content on culture, would be an interesting foundation for seeing relations in new ways.

At the sprint we tried out different ways of crafting a dataset that could underpin such a visualization. One of the prototypes comprised all posts and user interactions (such as likes, shares and comments) from the Facebook-pages of 550 cultural institutions in Copenhagen. We turned these interactions into a network of posts connected by shared user activity (shown to the left in the figure below). Each node represents a post and are colored by the page they were posted on (e.g. all pages from the music venue VEGA are orange). Nodes are connected if the same user has liked, commented or shared them and are stronger connected if this is the case for more users.

When interpreting the network we found that the cultural users on Facebook seems to be fall into the six clusters of interest written on top of the map. We thought of these as 'post-demographic' segmentations of these users because they are build on interactions – not demographic variables.

A central part of the sprint was to use this map to ask questions and use qualitative-quantitative methods to zoom in on other interesting aspects of the network. The close connection between the jazz audience and the maker-space was, for instance, surprising and required attention. It is in such 'conversations' with data that new visibilities can stimulate new modes of thinking and new forms of valuation.

For instance, the interaction with data made it clear that the employees of the Royal Theater sometimes had diverging interpretations of the cultural scene. Such differences became visible in mundane practices such as pointing to places on the map, where they expected a specific cultural institution to appear.

#### **TANT-LAB PUBLICATIONS ON THIS SPRINT AND THE LINK BETWEEN DIGITAL METHODS AND VALUATION**

Munk, AK, Jacomy M and Madsen AK (2017) Thinking through the data body. In: Mäkitalo Å, Nicewonger T and Elam M (eds.) *Designs for experimentation and inquiry: Approaching learning and knowing in digital transformation*.

Madsen AK (2015) Tracing Data – Paying Attention - Interpreting digital methods through valuation studies and Gibson's theory of perception. In: Kornberger M, Justesen L, Madsen AK and Mouritsen J (eds) *Making Things Valuable*. Oxford: Oxford University Press. Pp. 257-277

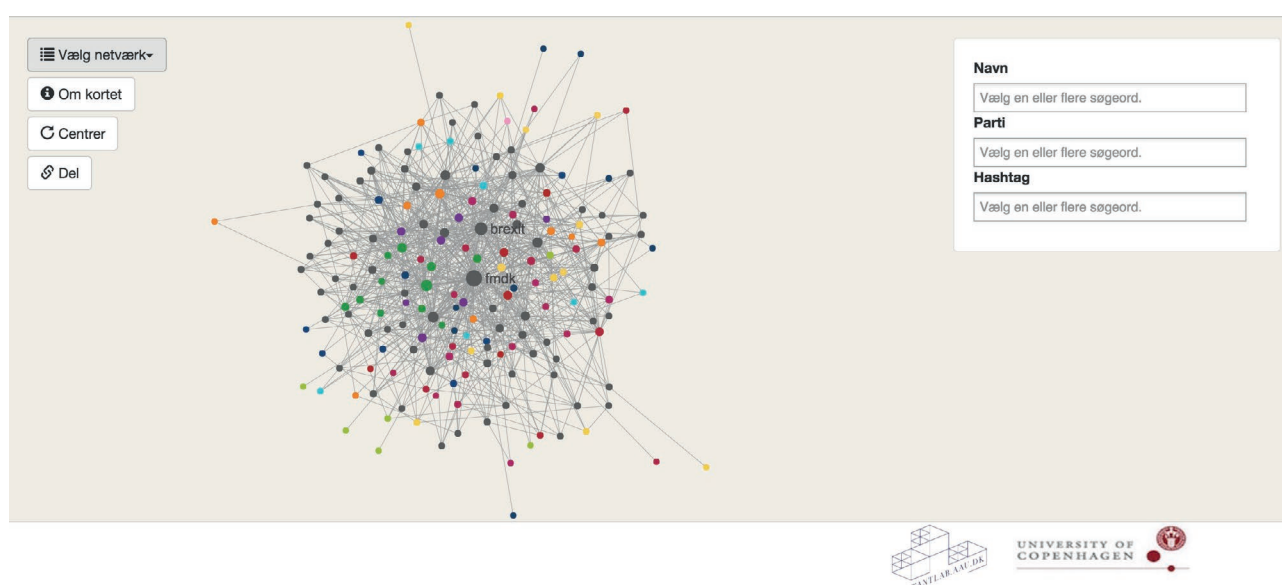


## THE TWITTER-THING

Parliaments could seem to be highly issue-agnostic places. All sorts of problems move in and out. But issues make cuts. Some parliamentarians become attached to specific issues.

What if the parliament was approached not as a representation device for the national population, but as an assembly of multiple and constantly transforming issue-oriented publics? What kinds of issues come to the fore, how long does this last, and who associate themselves with them?

The aim of the Twitter-thing is to trace the cuts issues make in a parliament. Each time a parliamentarian use a hashtag in a tweet, a link is created between that hashtag and the parliamentarian. The tool then generates a network visualization showing how parliamentarians group around topics and issues. The version shown in the screenshot below was developed in collaboration with the Danish newspaper Politiken, which featured the tool and accompanying articles on its website in 2016.



The resulting 'issue publics' – or *things* in the sense of a collective aroused by an issue – are also 'data publics' because they are not necessarily aware of themselves as publics. At the same time, it is possible to self-select membership of these publics by using a specific hashtag. This raises the question of what feedback loops are at work between visualizations and those being visualized. How might a tool like the Twitter-thing change (parliamentary) politics? More generally, the tool prompts us to think about the fate of issues in institutionalized democracy.

The Twitter-thing invites users to explore these questions by making the network available in an interactive format that makes it possible to zoom, search for particular politicians, parties or hashtags, narrow down the network, and follow it over time. It is part of ongoing efforts in digital methods to develop 'datascape' navigation tools.

Link to the interactive online tool: <http://twitterting.cadm.dk/>

Built with the Actor-Network NAvigator (ANna):

<https://github.com/bornakke/ANna>

## PUBLICATIONS

Birkebak A, Bornakke T and Papazu I. (2017) The Twitter-thing: Retooling the parliament into issue publics. Exhibition presented at the *Data Publics* Conference, Lancaster, Great Britain. 31/03/2017 - 02/04/2017.

## RESPONSES TO AIRBNB: PUBLIC ISSUES AND EMERGING POLICIES

The rise of the collaborative economy has attracted a lot of interest in recent years, not least in relation to travel and tourism, with companies like Airbnb and Uber in the rise. In 2016, TANTlab participated in the production of a report on the topic to the European Commission. The project was headed by the Tourism Research Unit (TRU) at Aalborg University Copenhagen and involved researching and writing a so-called 'impulse paper,' which provides academic input to the decision-making process in Brussels.

The thrust of the TANT-Lab contribution was to utilize digital methods to map issues related to the rise of services like Airbnb. Airbnb is the most prominent example of how a shift towards a collaborative economy is changing tourism. A key question for the EU commission is how cities respond to this development, how they monitor and regulate this new type of business, and how they cope with or attempt to benefit from the new developments. Recently, services like Airbnb and Uber have caused a range of controversies, also in Europe.

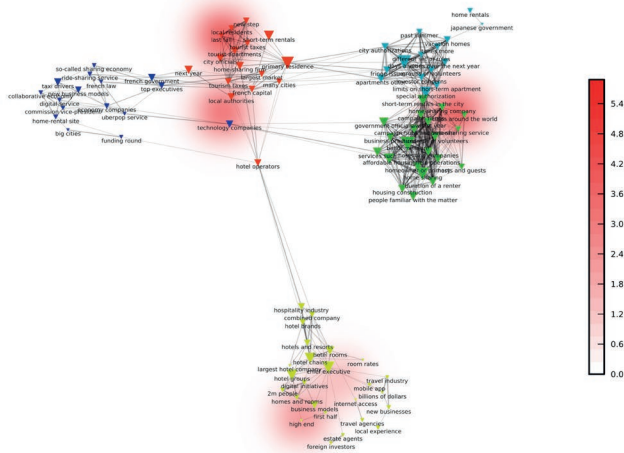
In the impulse paper, we explore the issues that have arisen in four major European tourist destinations: Amsterdam, Barcelona, Berlin and Paris. We constructed data sets from Airbnb reviews, from Facebook, and from the news database Proquest. Based on the semantic analysis software Cortext, developed for research purposes by IFRIS and INRA in France, we constructed maps of the 'issue spaces' related to Airbnb and visualized how the four different cities were positioned differently in the maps.

The discussions and controversies in Paris and Amsterdam turned out to be associated more with tax issues, while Berlin focused more on land use regulation, and Barcelona was more strongly associated with an innovation agenda than the other cities. Each city is represented by its own cell in the visualization above, which uses a heat map technique in Cortext to show how each individual city is related to the overall issue space. The visualization was published as part of the 40-page report, which can be downloaded ([link below](#)) and consulted for a closer look at the visualization and the datasets and techniques behind it.

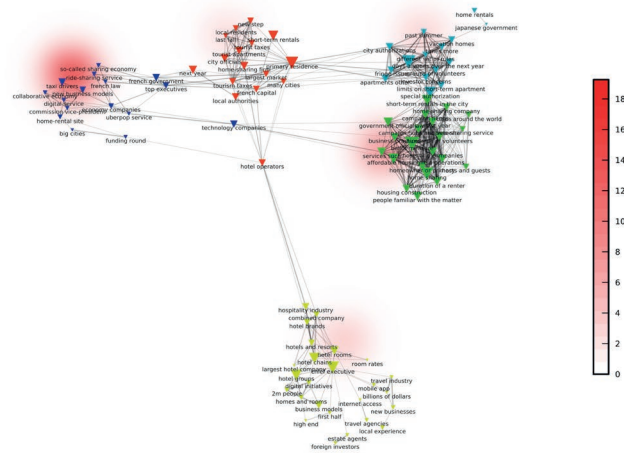
## PUBLICATIONS

Dredge D, Gyimóthy S, Birkbak A, Elgaard Jensen T and Madsen AK (2016) *The impact of regulatory approaches targeting collaborative economy in the tourism accommodation sector: Barcelona, Berlin, Amsterdam and Paris*. Brussels: European Commission.

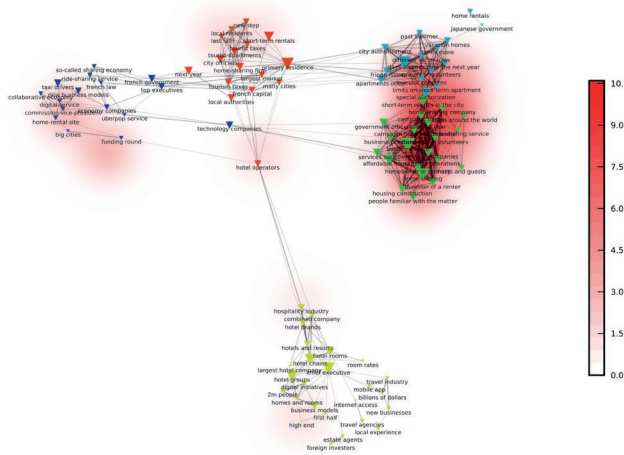
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## ENGAGING STAKEHOLDERS IN THE IMPLEMENTATION OF A NEW SCHOOL REFORM

How do you engage citizens and stakeholders in developing a crowdsourced policy for the future of the public school system in a municipality? This was the challenge facing local politicians in Aalborg, Northern Denmark, when they approached the TANT-Lab together with the consultancy AGORA. It had been decided in advance that the process would have to involve the social media platforms where citizens were already making the school their matter of concern - in this case Facebook - but it was unclear how a messy social media conversation could be fruitfully hardwired into more traditional citizen techniques for public engagement.



Anders Kristian Munk and Anders Koed Madsen present the first results of the hashtagged Facebook conversation between 1600 school stakeholders in Gigantium Aalborg on January 8th 2015.

Throughout the fall of 2014 we helped the municipality collect and organize interesting conversations from their Facebook page and gradually cultivated a practice of users hashtagging their contributions, according to the themes the discussion had a bearing on, as well as the types of stakeholders involved in it. A school teacher might for example hashtag a post about physical activity in the classroom #physicalactivity #classroom #teacher allowing us to identify emerging thematic clusters in the debate and emerging relations between particular stakeholder groups and themes.

In early 2015 the municipality invited 1600 teachers, pedagogues, managers, students and other staff to a day of collaborative work at one of the major sports arenas in Aalborg. Based on our experiences from the more open ended online conversations in the preceding months we devised a short catalogue of best practices when hashtagging Facebook inputs. Organised around 150 tables the participants were then asked to collectively author vision statements for the future, post them and discuss them.

The result of this work was a database of approximately 1.000 vision statements hashtagged by their authors according to their themes. From the data we identified a number of overarching thematic clusters and central hashtags that were deemed necessary to include in a crowdsourced political vision for the schools. Based around this analysis the database with the full statements was made available and explorable to the 150 school leaders who would sit down and formulate the eventual 2-page policy document outlining the vision.

The process proved an interesting experience for the researchers involved. A major reform of the school system in Denmark had preceded the vision process in Aalborg, and the topic was still sparking intense controversy, both locally and nationally. One important feature of opening up a conversation on Facebook was that the roaming issue-public that had sparked around the national reform found a temporary forum in which to express itself. Another and somewhat contradictory effect of these controversies was the considerable political potential with which the conversation was charged, and the implications this had for those participating in the discussion. It was not without consequence to make your voice public under such circumstances. These and other reflections are currently the topic of several paper projects in the lab.





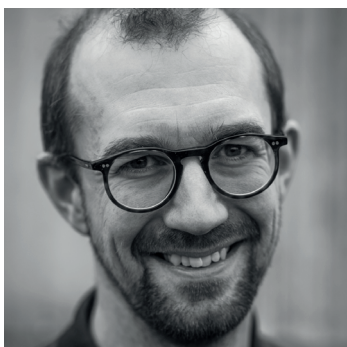
*Dr. Mette Simonsen Abildgaard is a cultural analyst working within Cultural Studies, Sound Studies and STS. She focuses on the historical socio-material significance of communication technologies in everyday life, and is supported in her current work by a research grant from the Danish Council for Independent Research. She is a Postdoc in the Techno-Anthropology group at the University of Aalborg in Copenhagen and a member of the TANT-Lab executive committee. <http://personprofil.aau.dk/136298>*



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*Anders Koed Madsen is associate professor in Techno-Anthropology and member of the TANT-Lab executive committee. His research is among other things concerned with digital methods, the re-organization of public engagement in contemporary media environments and the use of new forms of data to guide organizational decision making. He holds a PhD in Organization Studies (CBS), an MSc in Communication & New Media Studies (University of Illinois at Chicago), and BSc in Philosophy and Political Science (Uni. of Copenhagen).*



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CHERISH, NOT PERISH

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## **Journal “Sociology of Science and Technology”: a Russian Platform from Conventional Social Studies to STS**

The Russian-based journal “Sociology of Science and Technology” (SST) aims at international visibility and welcomes contributions in social and interdisciplinary studies of science and technology worldwide. SST develops a network of authors and reviewers and often experiments with special issues and guest editors in order to facilitate international discussion accessible to both Russian and non-Russian readers. The journal follows current turns in Russian social studies to science and technology studies (STS) and represents both conventional and new research agendas.

The SST journal is a quarterly professional journal, published both in Russian and in English. It was established in 2009 by the St. Petersburg branch of the S.I. Vavilov Institute for the History of Natural Science and Technology at the Russian Academy of Sciences, in collaboration with the “Nestor-Istoriya” publishing house. SST was designed as a platform for social scientists and researchers and to experiment with formats in addition to more classical types of publications. Despite its Russian-based origins, the journal strives for global recognition: the editorial advisory board includes scholars not only from Russia but also from European, Asian, and American countries. The journal collaborates closely, and develops partnerships, with related institutions and organizations, including international professional associations such as the International Sociological Association’s Research Committee 23 for the Sociology of Science and Technology. SST is now on its way to becoming an international publication platform following recognition in Russian journal rankings. It is experiencing a ‘rebirth’, in terms of technological changes and transfer to a new platform, in order to become more visible and appropriate for English-speaking audiences.

SST was intended as a platform for social scientists and researchers dealing with the issues of sociology, history, philosophy, and the anthropology of science and technology in general, and STS in particular. In order to serve the purposes and demands of the professional community and to remain on the cutting edge of STS trends, it is relatively flexible with formats and thematic issues. Traditionally, it collects theoretical and research articles, assembles topical issues and special editions, publishes conference papers, book reviews, conference reports, roundtables conversations, and interviews with scientists and researchers, as well as other open-ended contributions.

The major focus of SST is the social and interdisciplinary study of science and technology across a huge range of approaches, methodologies, and empirical results. The scope of topics includes problems of science and technology located in various areas, including: science, technology and society; science policy and science communication; science and education; technology and innovations; scientometrics and science governance; technological development and technology transfer; professional communities of scientists and academic mobility; gender issues in science and technology; social effects of technologies; the social role and status of scientists; and the sociology of knowledge and studies of expertise. The relatively recent (in Russia) turn to STS has facilitated the spread of interest in non-conventional and experimental writings, though the most frequent sections are still devoted to the history of science, science policy in Russia and abroad, scientific knowledge production, empirical studies, interviews with scientists, scientific life notes, and the first steps for young researchers.

The last special issue (No 4, 2015) gathered papers from the first St. Petersburg seminar which was organized by the Section for Sociology of Science and Technology at the St. Petersburg Association for Sociologists. The idea of the seminar was to bring together researchers from various institutions to represent the scope of studies and to facilitate future collaborations. There were eight articles devoted to information technologies, networks and flows, state and innovations, material objects in everyday interactions, comparative analysis of Latour and Lyotard, trust in science, and scientific boundaries. Other special issues have been devoted to “25 Years of Sociological Education in Russia” (No 2, 2014), “Russian-Chinese Seminar on the History of Science” (No 1, 2013), “Science, Technology and Social Processes in India: Sociological Discourses” (No 4, 2012), or the 100th anniversary of Robert Merton’s birth (No 4, 2010).

Our readers are students and scholars in STS, sociology, anthropology, history, and the philosophy of science and technologies; researchers dealing with various aspects of science functioning and technological development, governing of science and technology, and academic life and relationships with industry and government. Practitioners and policy-makers might also be interested in the journal articles, as they often represent the analytical and critical perspective of the current state of affairs in terms of science policy.

As the SST journal is on its way towards increased international visibility, it invites participation from a larger professional community of scholars working in the area of science and technology studies. The journal welcomes research in the areas of social and interdisciplinary studies of science and technology. Papers analyzing national aspects of science and technology development might be especially interesting in the framework of comparative studies. The SST journal seeks submissions that engage with traditional and shaping matters and welcomes participation in an ambitious plan – to construct a bridge between the global agenda in STS and its locally driven contributions with a Russian flavor.

Original manuscripts (either in English or in Russian) can be submitted via e-mail directly to the editor ([school\\_kugel@mail.ru](mailto:school_kugel@mail.ru)). Author guidelines are available on the official web-site.



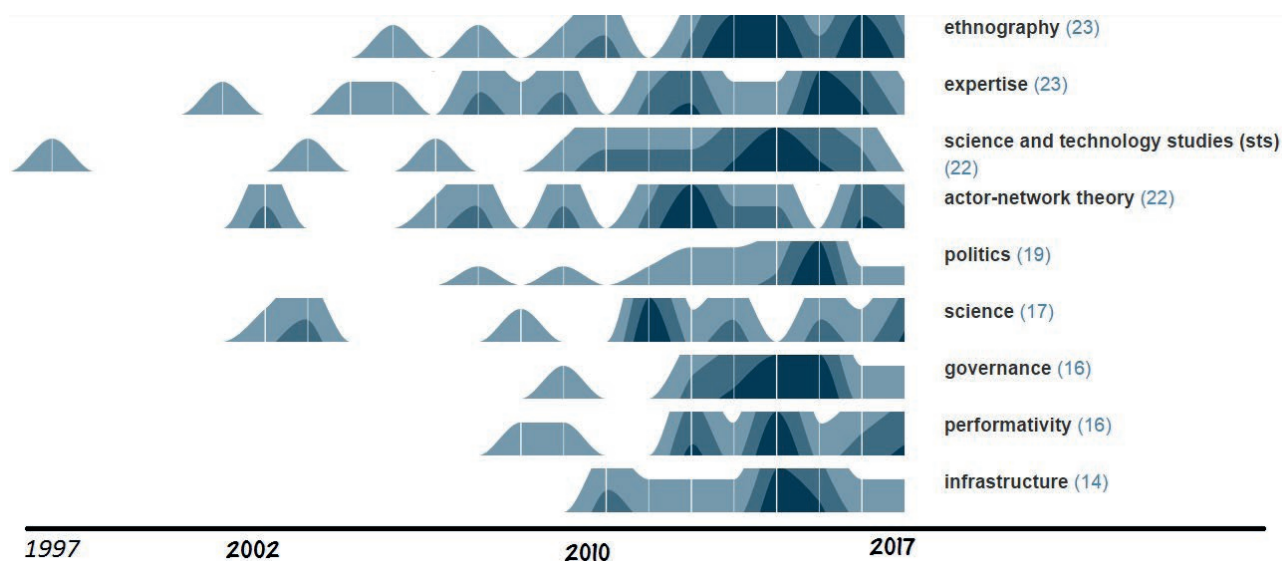
# STS EVENTS

# INFRASTRUCTURAL CHOREOGRAPHY OF STS SCHOLARS

Nikolay Rudenko, Liliia Zemnukhova

## LIVING INFRASTRUCTURES IN CITIES AND BEYOND

The notion of infrastructure became popular in STS literature in the 2000s and in the 2010s (fig. 1). Its popularity might be explained by its relevance to many urban and non-urban systems and networks, at the same it usually demands focusing on particular empirical case-study.



Infrastructure addresses big urban and technological projects like power networks (T. Hughes), as well as situational interactions between people and things (S. Star, G. Bowker). Infrastructure simultaneously covers the fields of urban studies showing the importance of the processes of privatization, neoliberalization and hybridization of city spaces (S. Graham, M. Gandy, S. Collier), informational technology studies addressing issues of scale, connectedness, categorization, and accessibility of information (G. Bowker, S. Star), mobility studies that tackle with the questions of flows, frictions, connectivity, and also the everyday experience of spaces and places, and many others (J. Urry, P. Adey). This kind of multiplicity of the notion of infrastructure makes it fresh and heuristically useful (?) for thinking the contemporary city and beyond.

Fig. 1. Frequency of keyword "infrastructure" in comparison with other keywords in STS literature. Source: Own elaboration based on Scopus Database and Science Scape tools by the Medialab, Science Po. URL: <http://tools.medialab.sciences-po.fr/sciencescape/>

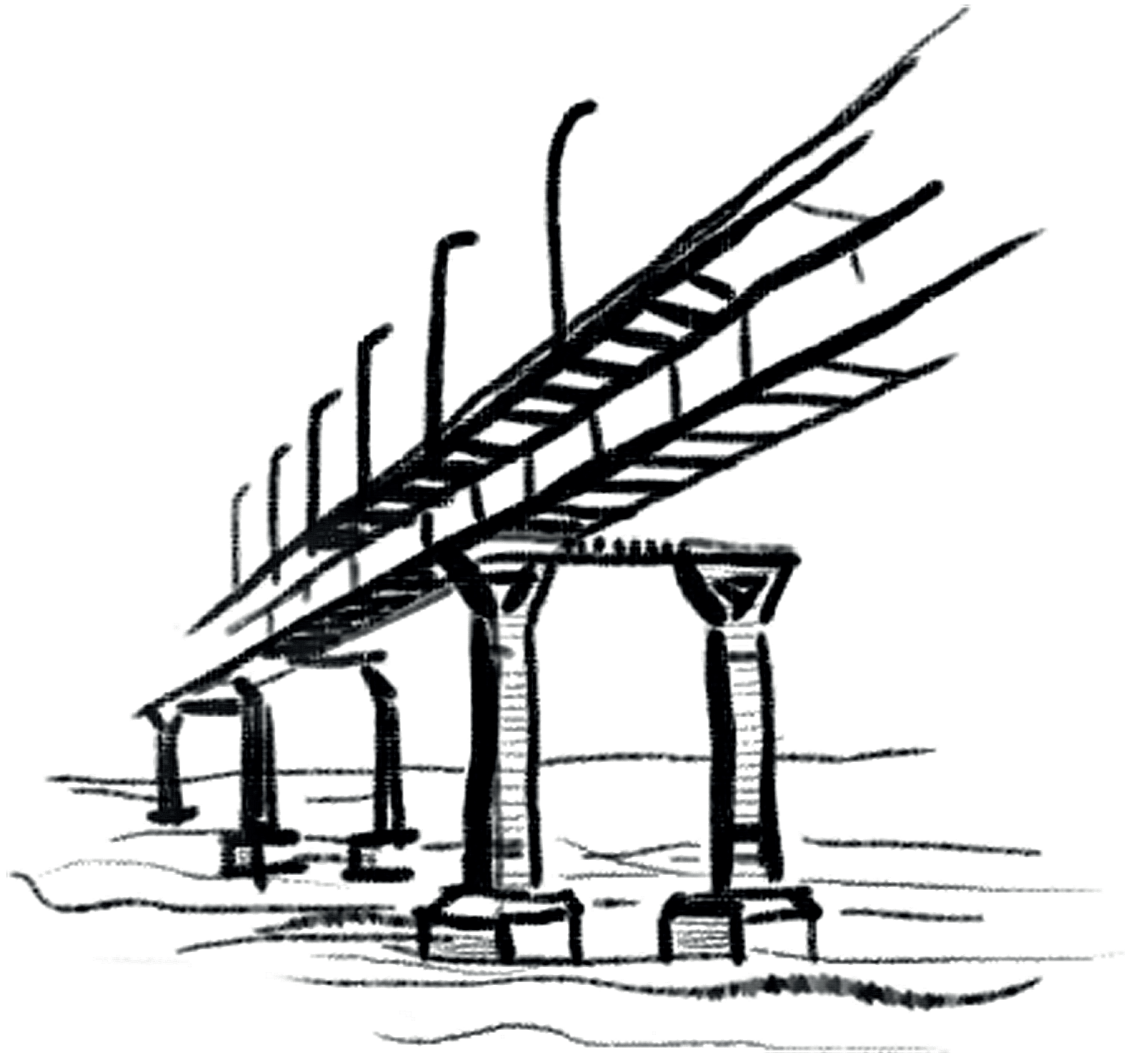
## DANCING WITH THE WESTERN INFRASTRUCTURAL IDEAL

With all these thoughts in mind, a group of scholars from Volgograd and Saint Petersburg (Russia) with the support of Volgograd State University and European University at Saint Petersburg organized the international conference "Living Infrastructures: Beyond Global North and Global South", which took place in Volgograd on April 27-28, 2017. The topic itself was devised during a previous workshop in Volgograd when several scholars questioned the position of urban infrastructures in Russia with regard to the Western infrastructural ideal. Based on the ideas of scholars from the so-called "second wave" of infrastructural studies, who criticized the normativity and the Western-centrism of infrastructure concepts in the articles and books of the STS canon, we sought to articulate the specificity of Russian cases, as well as to emphasize the diversity of infrastructures all over the world. The idea was not only to de-colonize infrastructural studies extending them to Russian cases, but to show the delicate relations between people and

Fig. 2. The Volgograd "dancing bridge". Source: the design logo created by the Volgograd team for the conference.

the everyday things they are engaged with. "Living infrastructures" became thus a metaphor to remind scholars that infrastructures are dynamic and surprising, simultaneously resilient and fragile. They are ecologically mutually dependent on other life forms. They are not invulnerable or "eternal beings", as social scientists of Durkheimian denomination thought of societies. They confront risks to their continued existence and have sometimes their own life.

The logo of the conference – the "dancing bridge" in Volgograd – might be seen as the symbol of the living infrastructures idea (fig. 2).



Volgograd's "dancing bridge" was under construction for 13 years and it connects the central part of the city, very busy and intense one, with the natural outskirts of Volgograd floodplain, establishing a fast connection between different parts of regions at the cost of harming the subtle ecology of the floodplain. Notably, after the construction, the bridge began to "dance", that is, oscillate because of wind conditions that created a lot of authority concerns and people's rumors (look at the bridge here: [https://www.youtube.com/watch?v=WEQrt\\_w7gN4](https://www.youtube.com/watch?v=WEQrt_w7gN4)). It became an important tourist attraction of Volgograd, although some days after the dancing, with the help of Swiss and German engineers (sic!), the oscillation was stabilized. In this way, the common infrastructural urban object became important part of Volgograd hybrid ecology, its urban narratives and global technological connections.

## ORGANIZING AND BLOGGING!

Preparing the conference, the organizers decided to “build” a temporary digital infrastructure to liven up an interest in the forthcoming event. The idea was to create a special blog on the Wordpress platform, where different topics around the infrastructures could be exposed (<https://livinginfrastructures.wordpress.com/about/>). The team posted little essays on bicycle mobility, kids smart technological infrastructure, innovation infrastructure, anthropology of infrastructures, the influence of mega-events on urban infrastructures, childbirth infrastructures in Russian central and peripheral regions, and also on the topic of how the urban infrastructure elicit affects and emotions from the citizens. All these essays were disseminated in social media and helped to attract the attention of different scholars and activists to the conference issues. The blog platform attracted hundreds of website visitors.

## THE INFRASTRUCTURATION OF THE WORLD

The conference gathered scholars across Russia, India, Bulgaria, Germany, Sweden, and the UK. It was the first STS-oriented conference focused on the topic of infrastructure in Russia ever. The conference was opened with a keynote on “Infrastructuring Mobile Utopia: Global Challenges, Global Responses” by Prof. Monika Büscher (Centre for Mobilities Research, Lancaster University) (fig 3). She analyzed cases of material infrastructural breakdown and digital humanitarianism when people converged online to restructure absent governmental. The presentation raised a range of important issues of mobile utopia and dystopia in equipped smart cities, digital and immaterial infrastructure, reflexive resilience in the context of sharing data and the precarity, and creativity in the process of infrastructurization. Three modes were suggested to develop the argument of reflexive resilience – archaeology, ontology, and architecture, in order to contribute to the discussion on relational infrastructure and posthuman relational ethics.

Fig. 3. Monika Büscher gives a lecture on the mobile infrastructures that are enacted in the time of societal crises. Source: Lyubov Torlopova.





Fig. 4. Ivan Tchalakov on the division between the governmental and private space programs.

Ivan Tchalakov (PAST-Center, Tomsk State University / University of Plovdiv) opened the second day with his talk "Ships, Channels, Gravity Wells and Valleys: Towards Deep Space Infrastructures" (fig. 4). The examples of SpaceX and ULA were redefined through Latour's restored symmetry as transportation for human and nature and as a conquest of the resources to become an infrastructure for the space-scape and interplanetary network. Tchalakov also discussed new private projects that might advance space industry further.

Both keynote lectures revolved around the questions of new and only anticipated infrastructures that should be delicately and intensely investigated by the STS scholars, using conceptual resources from philosophy, activism and social studies of science and technology.

The main topic of the conference was devoted to mobility infrastructures. The session "Mobilities Infrastructures: Speeding Up the Slow, Slowing Down the Fast" gathered scholars interested in changing practices of urban dwellers, the Russian subdued forms of mobility called "marshrutki", the social infrastructures of public transport, the ambiguity of bicycle infrastructure, bike sharing systems in Russian big cities, and children "smart" mobilities. The multiplicity of the topics challenged participants to ponder upon the possibility to assemble the cases under the head of the mobility infrastructure notion. At the same time, it became very apparent that mobility is an important part of any infrastructures since it makes informational or material units pass through. How to create the infrastructure in such a way to make easier and comfortable to transit units, and at the same time to make people who use this infrastructure to feel comfortable and not alienated – it is a very important question.

The session "Urban infrastructure" drew attention to the relations between city and infrastructure. Participants demonstrated their interest in the influence of politics and policy on urban infrastructures, the access to the latter and the regime of uses. Many Russian cities represent cases of infrastructures with the centralized



logic of a planned economy. Despite contemporary neoliberalism scholars' emphasis on privatized and splintering infrastructures, we may find a lot of examples of path-dependent urban infrastructure, which follows the old and very obsolete logic of planned economy. It opens up the space for thinking about the very principles of urban infrastructure development.

In the session devoted to digital infrastructures, speakers problematized the relations between online and offline: how the space-based digital games connect to the body, perception, and the social order of city; how visualization and simulations of existing and anticipated infrastructures make work with the city space, and help to construct more comfortable and participative infrastructure. The question of representativity also penetrated the issue of media infrastructure in the game development for gamers' imagination and anticipation of the cultural product itself.

The "Infrastructured Bodies" session tackled with the biopolitical question of a seamless connection between sociomaterial infrastructures and bodies. The speakers demonstrated how infrastructure matters when certain policies and extensive spatiality affect professional work, patients' access and abilities and how particular enactments of diseases involve people through mobile applications and handmade infrastructures, where technology becomes secondary to knowledge exchange and accumulation.

Finally, the "Infrastructure Theories" session grasped all the previous insights into the concepts of infrastructure with all their range. Forgotten sociological classic Ferdinand Tönnies was considered to be a pioneer in logics of translation (connection of wills) and assemblage (collectives), dealing with a paradox of things as objects in relations of possession and capital. Bruno Latour's material semiotics with the focus on operations of shifting (shifting-in, -out, -up, down) was considered an important resource for thinking of infrastructures as a type of relation and not as a set of things.

Fig. 5. The participants of the conference, who have enacted the infrastructures in the Global North and South for the two days of the conference.



**MAKE THEM LIVE!**

Monika Buscher from the Lancaster University told about how in situations of risk or accidents people start to help each other and make their own living infrastructure that are sometimes more effective than already created and established state and municipal infrastructures. The notion of living infrastructure could be also told about the conference participation as a special infrastructure when people all around the world gathered to talk about the different cases of infrastructure and by this created temporal emotional and narrative infrastructure to make infrastructure be living longer in the minds of scholars. Geoffrey Bowker and Stephen C. Slota in the brand new "Handbook of Science and Technology Studies" named their chapter "How infrastructure matter?". We believe that the conference "Living Infrastructures Beyond Global North and Global South" in Volgograd advanced further another vital question: "How to think and talk on infrastructures as a living matter?".



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# SENSOR PUBLICS

## REPORT FROM A WORKSHOP ON THE POLITICS OF SENSING AND DATA INFRASTRUCTURES

Laurie Waller, Nina Witjes

**SENSOR PUBLICS TOOK PLACE AT THE MUNICH CENTRE FOR TECHNOLOGY IN SOCIETY, 5-7 APRIL 2017. THE WORKSHOP BROUGHT TOGETHER RESEARCHERS STUDYING AND WORKING WITH SENSING TECHNOLOGIES TO ADDRESS THE POLITICAL AND ETHICAL CHALLENGES EMERGING IN DATA-DRIVEN APPROACHES TO DEALING WITH PUBLIC ISSUES. ENCOMPASSING DIVERSE APPROACHES FROM STS, SECURITY STUDIES, PARTICIPATORY AND ENVIRONMENTAL SENSING, AND POLITICAL THEORY, THE WORKSHOP SOUGHT TO PROBLEMATIZE RECENT POLITICAL DEBATES ABOUT THE SHAPE OF PUBLIC SPACE AND 'DATA POWER' IN DIGITAL SOCIETIES, AND TO EXPLORE THE AFFORDANCES OF SENSING TECHNOLOGIES FOR INVENTIVE APPROACHES TO SOCIAL RESEARCH.**

Invested with ideals ranging from 'the smart city', 'evidence-based policy', 'algorithmic governance', 'citizen science', or 'hack-tivism', sensors have been widely foregrounded in contemporary debates about the role of digital technologies in addressing the big political challenges of our time. The idea of a workshop on the politics of sensing developed in discussions with our colleagues at the Munich Centre for Technology in Society (MCTS) about the need to take on the political and ethical challenges emerging in data-driven approaches to dealing with public issues and to challenge narrowly reductive and positivist accounts of 'big data' and informational politics.

The workshop was developed with three broad motivations: first, to address theoretical questions about how concepts of sensing might be used to freshly problematize recent political debates about the shape of public space and 'data power' in digital societies? Second, to bring together researchers in security studies together with participatory and environmental researchers to explore opportunities for collaboration between these fields. And, lastly, and somewhat opportunist on our part, to invite a diverse range of researchers and engineers who themselves are experimenting with sensors to Munich to explore with them whether and how the 'proliferation of sensors' might open up inventive approaches to social research.

Through invited keynotes given by Geoffrey Bowker and Jennifer Gabrys, we aimed to put into dialogue two leading figures in the social study of digital devices and data infrastructures. Both speakers engaged with the ways in which sensors not only produce 'raw data' but also often problematise the relation between epistemic practices and their environments. Addressing the politics and ontology of data infrastructures, Geoffrey Bowker turned to a provocation from a Business Week article claiming that "the earth will don an electronic skin", mobilizing this fantastic-sounding proposition as a critical resource for attending to controversies around the uses and abuses of personal data. Rather than reducing the politics of personal data to issues about the rights of private individuals, Bowker proposed that researchers engage with how such controversies can also provoke reorderings between politics and its environments. Attacking the 'misplaced concretism' of epistemologies of 'big data', Bowker argued against falling



into the trap of naturalising relations between digital infrastructures and particular forms of social and political order. In her keynote on environment data and data citizenships, Jennifer Gabrys discussed her work in the “CitizenSense” project by prototyping two devices, the dustbox and frackbox, and working with groups of activists to deploy them in particular environmental controversies. Highlighting problems around the calibration of many ‘off-the-shelf’ sensors, she drew attention to the complex data landscapes in which professional and amateur sensing practices take shape and intervene. Outlining a Whitehead-inspired conception of “environmental data”, Gabrys argued that the instrumenting of the planet with sensors not only brings environmental issues into politics but can also repose citizenship as an environmental problem.

Over two days, presenters engaged with a range of issues implicating sensing technologies and politics. The city as a setting where sensing projects are publicly tested, was explored by Nona Schulte-Roemer, Sara Degli Esposti, Claudio Colletta, Alexander Pólvara, Leslie Mabon and Gerard Jan Ritsema van Eck. A range of these papers addressed the role of sensing technologies in processes of public experimentation, in which urban infrastructure become sites for demonstrating the “eco-city” or “smart city”. Many highlighted that experiments with sensors can, in different ways, provide occasions that problematize the urban environment as a setting of political engagement; often indirectly resonating with Gabry’s proposal to understand citizenship as an environmental problem. Schulte-Roemer, for instance, highlighted the ways in which urban sensing projects can perform infrastructure such as street lights as multivalent in their relation to public space and not only mere instruments for governing it. Indeed, a similar point was made by Coletta who discussed an experiment with a sensor-network deployed in Dublin, highlighting - in contrast to reductive accounts of urban experiments as mere ‘scalable’ procedures - that the such experiments rarely domesticate infrastructure in the ‘low-cost’ way city authorities envisage and can effect the “accidental” emergence of unforeseen urban problems and publics. The provocation of urban publics was proposed as an active participatory design strategy by Claudia Mendes and Hannah Varga in their workshop on ‘prototyping publics’, in which they tested a workshop method to engage groups of citizens with the implementation of a ‘smart city’ sensor installation project in Munich. Pólvara too highlighted that ‘bottom up’ citizen science projects can not only be used to construct an ‘evidence-base’ for policy, but can stimulate broader engagements between art, design and technology in addressing issues such as urban air quality.

In contrast to such post-instrumental understandings of public experiment, a range of papers highlighted that urban sensing trials can in other cases perform more familiar modes of government and privatisation that have long been associated with the technocratic approaches of city management. Many of the presentations understood data produced in urban sensing projects as often highly biased and asymmetric in its political uses, highlighting how ‘data-driven’ initiatives can displace and marginalise issues such as urban poverty, community development or public ownership. Mobile apps encouraging users to report where and when they feel they are in an insecure or threatening environment, offer a powerful example for the manifold and contingent entanglements of sensors, publics and urban security. As Gerard van Eck has shown, this crowdsourced open-sourced content not only stigmatizes streets or neighborhoods (with all the socio-economic implications) but can be valuable for law enforcement agencies in deciding where to target resources. Raising questions on how to overcome what van Eck called an “evidence-based stigma”, Nikolaus Pöckhacker also outlined how sensing in the field of predictive policing already assumes attributes connected to imaginations of (in)security where the data is given a specific voice through a complex apparatus of sensing and sense-making.

Questions about relations between ‘local’ sensing experiments and ‘global’ data apparatuses were addressed by several presenters. Christopher Wood’s work, situated at the intersection of artistic and scientific practices, focused on making geospatial infrastructures visible through experimenting with breakdown and infrastructural inversion in the built environment. Wood’s trails of satellite tracking apps with different collectives played with the personal relations of individuals to

satellites orbiting above and the disruption of these relations as they individuals navigate through densely constructed urban settings. Moving from art to engineering, the following presentation by Godert-Jan van Mannen on “How to Hack a Satellite” step-by-step showed how it is possible to intrude a communication satellite and get access to radio or television streams using cheap and commercially available technology. This demonstration pointed to some of the often-overlooked vulnerabilities of techno-political infrastructures and the need for a much broader consideration of risk in discourses on sensing technologies. At the same time, it pointed to the manifold forms of resistance against forms of neoliberal sensory governance, e.g. when hackers used their capabilities to claim free access to television for all. Indeed, the ways in which security expertise are claimed and technical competences distributed was addressed by Becky Kazansky whose paper examined how activist groups are dealing with risks and threats of sensory surveillance. Adopting an engaged methodology in working with human rights activists, Kazansky highlighted some of the different ways in which distinctions between technical and ethical responsibility get translated between what she termed ‘communities of security practice’.

Questions about how the construction of threats - digital or not - come to matter with sensors, their governance and in different forms expert practice figured prominently during the workshop. Ubiquitous sensor networks raised challenges for many participants about how we envision privacy, data protection and configurations of risks. Indeed, one of our central aims for this workshop was to connect the different engagements with sensors in STS, urban- or data studies, that are mainly focused on the level of ‘localized’ collectives to the foreign entanglements of sensors and their embeddedness in the global political economy and international relations. In an attempt to facilitate such a conversation between international security studies and STS, Philipp Olbrich discussed the politics of satellite observation of North Korea as the technologization of security governance. Here, the seemingly objective satellite’s view from above translates and black-boxes it into a socio-material mobile assemblage of satellite data, eyewitness accounts and other sources. In this way, satellite imagery closes off important controversies and political alternatives as it locks in a hierarchy of evidence that reifies an adversarial posture and discredits North Korea as a future dialogue partner in the context of international relations.

The relation between international sensing apparatuses and the politics of the ‘view from above’ was also addressed by Vera Ehrenstein in her presentation on the scientific and political challenges of producing epidemiological data about ‘African pneumococcus diseases’ caused by pneumococcus bacteria. Following the bacteria from international conferences to their collection by lab researchers and street recruiters in Burkina Faso to the offices of the European vaccine distributor that contract the lab workers, Ehrenstein described the challenges involved in translating bacteria from nasal swabs into data that can robustly represent a city population and its bacteria. Where epistemological treatments of epidemiology have long been described the role of this scientific field in making populations known and governing them, Ehrenstein argued that epidemiological measurement was much more a “patchy sensing” process than one of comprehensive surveillance. Ehrenstein’s appropriation of the concept of sensing to think politically about epidemiological measurement was a powerful example of what could be said to be at stake theoretically in choosing to foreground sensing technologies/practices and displace the priority of epistemology to sort out relations between data and politics.

Sensors are, of course, not new objects in STS research. Whether in the design of experimental apparatuses, the implementation of ‘large technical systems’ or the production of novel measuring instruments, sensors have been widely studied as ‘lively’ devices that detect, inscribe, capture and record; if not always as “sensors”. As workshop participants often reaffirmed, there are many good reasons we might want to be skeptical towards hyperbolic and positivist-sounding claims that sensors are now “everywhere” and that we live in an era in which almost anything can be turned into “data”. But the presenters at this workshop also highlighted sensors also offer opportunities for STS research to problematize and

extend debates about data-driven politics and power in digital societies. As our MCTS colleague Tomas Sanchez-Criado (Tironi and Criado, 2015) has highlighted in his work on urban politics: even if we recoil at the corporate jargon of the sensor-equipped 'smart city', there may nonetheless be many reasons we might value the modes of "sensitivity" that can be occasioned in experiments to instrument cities with sensors. At the same time, the sense remoteness of the satellites that are orbiting above us, appearing as (re-)presenting facts from an allegedly neutral perspective, requires an enhanced sensibility towards the global socio-political, economic and cultural processes (as Witjes and Olbrich 2017) – or the foreign entanglements in Dewey's sense – in which sensory networks and forms of their governance are embedded.

#### BIBLIOGRAPHY:

Tironi, M., & Criado, T. S. (2015). Of Sensors and Sensitivities. Towards a Cosmopolitics of "Smart Cities"? *Tecnoscienza: Italian Journal of Science & Technology Studies*, 6(1), 89-108.

Witjes, N. & Olbrich, P. (2017): A fragile transparency: satellite imagery analysis, non-state actors, and visual representations of security. *Science and Public Policy*, 2017, 1-11. DOI: <https://doi.org/10.1093/scipol/scw079>



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## NEWS FROM THE COUNCIL

# CALL FOR APPLICATIONS FOR THE ANNUAL EASST FUND

We are pleased to announce the call for applications for the EASST Fund 2018. Successful applications will be awarded with €1000 funding.

The scheme aims to promote national and cross-national community building within EASST, advance new questions, topics and perspectives in science and technology studies, as well as enable collaboration with non-academic actors publically engaged in science and technology. EASST wishes to support a range of activities such as the organisation of conferences, network meetings, seminars, workshops etc. EASST is particularly keen on providing funding for dissemination of such activities, e.g. through social media or other means, like short movies.

We welcome Network and Community-building activities organised by, or leading to, the creation of national and regional academic associations or other academic and non-academic initiatives committed to the promotion of scholarly and public engagements with science and technology in the European region. Activities supported in previous rounds include: STS Austria launch event in Vienna, Spanish STS network (esCTS) annual meetings, Technosciences of Post/Socialism conference in Budapest.

We similarly encourage the organisation of Workshops and small Conferences within Europe with the potential of making significant theoretical and/or empirical contributions to the field.

Examples of supported activities from previous rounds: STS Perspectives on Energy conference in Lisbon, Does History Matter? Techno-sciences and their historically informed policies conference in Athens, STS and Development workshop in Amsterdam.

Activities should start between 1 January 2018 and 31 December 2018.

EASST especially invites applications from parts of Europe where EASST activities and membership are under-represented (Southern and Eastern Europe). There is a total budget of €6,000 for this call. By default, we offer €1000 for successful applicants, but we also accept applications for smaller sums. The proposed activities can be fully or partially funded by EASST. There are no quotas for different types of activities.

## HOW TO APPLY?

- Applications can be submitted only by EASST members.
- Applications should include a description of the proposed activity, addressing the criteria identified in the call. They should also include the proposed venue, date, organisers and expected number and profile of participants (when applicable) along with a budget specifying how the funds requested will be allocated.
- Applications should be on our application form which can be downloaded here  
<https://easst.net/wp-content/uploads/2017/06/Application-Form-for-EASST-Fund-2018.docx>

Completed forms should be emailed to [admin@easst.net](mailto:admin@easst.net) no later than 15 September 2017 as a word (or equivalent) document (NOT pdf).

The key considerations in assessing the applications are the following:

Community building on the national and cross-national level, and reaching to a European audience. Particular emphasis is given to novel network initiatives, especially in countries under-represented in EASST (Southern and Eastern Europe). Novel academic questions, new collaborations, and reaching beyond academia. Innovative initiatives in academia (e.g., open access publishing) and public engagement in science and technology. Open activities accessible for a wide array of participants and reaching a broad audience. Feasibility and value-for-money. We particularly welcome initiatives with limited access to other potential sources of funding.

Communication of award is expected by 10 November 2017. Recipients should notify the Council their acceptance of award within 15 days after the awards communication.

## **ASSESSMENT OF APPLICATIONS**

Since only a small number of EASST members will benefit directly from the activities, an approx. 2,000 words report will be required from those receiving awards which will be considered for publication in EASST Review. Beyond this, EASST also encourages applicants to pursue further strategies to address or involve the EASST membership more widely (such as a video from the activity which can appear on the EASST web-site or an online discussion or a web-exhibition). EASST support should be recognised in the public dissemination of the funded activity. This could involve the use of the EASST logo, referring to us on social media via our twitter handle @STSeasst or a short statement on publicity or event materials. The awarded amount will be transferred against invoices after the event. In exceptional cases, full or partial pre-funding can be provided.

## **FUNDING REQUIREMENTS**

For further information please contact Aleksandra Lis at [aleksandra.ola@gmail.com](mailto:aleksandra.ola@gmail.com) or EASST administrator Sonia Liff at [admin@easst.net](mailto:admin@easst.net).



# NEWS FROM EASST COUNCIL

The new EASST Council met towards the end of May in Lancaster UK. This was the official handover to our new President Ulrike Felt. There has been a large turnover of Council members so this was also an opportunity for council members to get to know each other, to review what EASST has been doing in recent years and to decide which areas of responsibility to take on.

A main part of the agenda related to our forthcoming EASST conference in 2018. Council had the opportunity to view the extensive facilities and to discuss with the local team their ideas for both the organisation of the event and for the theme and approach. Council were impressed with the level of commitment and enthusiasm for this important conference. Further details and an initial call will be available very soon. Check the EASST website and Eurograd posts for further details.

The EASST fund has now been launched for events taking place in 2018. Council will meet again at the beginning of November and will take forward a range of other issues including the next round of EASST awards for collaborative activity which will be awarded at the conference.

EASST Office



European association for the study  
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EASST Review on the Web: <http://easst.net/easst-review/>

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The Association's journal was called the EASST Newsletter through 1994.

