

Nordic STS – making ourselves relevant?

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In April 2013, the first Nordic conference specifically oriented towards science and technology studies was arranged in Hell, Norway. The idea of the conference was to have a meeting place for people working in STS or on STS-related topics, a platform for discussion that was amenable to the growing community of STS in the Nordic countries. With more than 130 participants – a sizeable share of the active STS community in the Nordic countries – it attests to the strengthening position of the field of STS, a field which may not be as institutionally strong anywhere else than in just this region. With room made for national meetings of the constituent STS networks in the various countries, the conference seemed to confirm that there was need for a further integration of STS research between the Nordic communities, as well as a need for a place where young scholars could present their projects and research and where established scholars could convene to network and plan projects, all within a setting which was not overwhelmingly large.

At the conference, a panel debate was arranged to discuss if such a thing as “Nordic STS” could be said to exist, and what it might even be. The four panel participants, one from each Nordic country present except Iceland, were reluctant to define what “Nordic STS” could be or might constitute. At most, it might consist of a set of research priorities, tied to the specific historical and political context of the Nordic countries – for example, the largely public system for care for the elderly has led to investigations into so-called “welfare technologies” in Denmark. The sentiment seemed to be that it makes little sense to try and distinguish STS in these countries from what is going on in other places, since STS is in its nature a global and cross-national field of inquiry. The theory and to some extent the empirical investigations travels between countries and looks more or less the same everywhere. At most, Nordic STS can be summed up as a sort of communality grounded in shared research interests and a mostly shared language base.

However, the consolidation of a Nordic STS community is in itself a reflection of a specific institutional context tied to a set of priorities dictated by the needs of the funders of social research in the Nordic countries – mostly the nation-states of Denmark, Finland, Norway and Sweden – which again ties into notions of shared history and an attempt to stake out a third course between the two dominating post-WWII political blocks. This consolidation, most recently demonstrated through the establishing of a new pan-Nordic network of STS research and a biannual conference of research done by Nordic scholars, also marks the demand for a platform for the further dissemination of this work. This is where a journal for Nordic STS research can find its *raison d'être*, both as a home for empirical investigations that might not be deemed of general enough importance for the larger STS publishing channels and as a window in from outside showcasing the academic work done in the region.

The Nordic

The word “Nordic” is potentially a problematic one. It presupposes a shared affinity between people working in different institutional contexts and languages, solely based on a politically/culturally constructed idea of similarity. To insist that there is something more than that, a sort of quintessential “Nordicness” which influences all Nordic STS scholars and somehow sets us apart from others, carries with it certain questionable implications, not least what this entails for the communication between regions and the movement of scholars across institutional borders. However, it is a fact that there is a large degree of cooperation within the Nordic region, with both strong historical precedence and political basis. To the degree that we are only dealing with professional cooperation and a tendency to talk to each other about what we are doing, we do not see a big problem in talking about “Nordic STS” as a sort of entity in itself.

One reason for choosing to stay with the notion of Nordic STS would be to discuss what happens as theory travels into our regional and national contexts. Even though they are often treated as such, theoretical concepts do not enter the world from a vacuum, but rather arise out of a particular time, place and institutional setting. So, concepts used by Nordic STS-scholars can be expected to be shaped by the particular institutional context in the Nordic countries in one way or another. This might be a somewhat banal statement, but as Nordic STS seems to be in a process of increased institutionalization, it's important to remain sensitive to how contexts shape our readings and uses of theory.

An example of how differing contexts can play into our theorization in the field of STS can be drawn from the fact that Nordic countries are often portrayed as the perfect example of how a sustainable modern market economy can be produced and maintained – the so-called Nordic Model (Andersen et al., 2007; Christiansen, 2006) which seeks to limit the purview of markets in favor of an extensive social security net and has been held up as an alternative for reform in countries like the United States (Jantti et al., 2006). However, it would be false to pretend that the market is the same thing in the US, France and the state-dominated economies of the Nordic countries. When the state is a major player in most spheres of the economy – owner of some of the largest companies in most sectors, partner in annual wage negotiations vis-à-vis the private sector, provider of health care, arbiter of gender relations, to name a few – could this not mean that the analysis of the economy, labor relations, consumer patterns, must look different too?

STS has shown us how the specific meetings between sectors transform the world, and our theories about the world, in unexpected ways. This insight should of course be brought into a discussion of meetings between different flavors of STS – reflexivity is, after all, part of the DNA of the history of STS (Wynne, 2007). Could it not be that the development, introduction and domestication of central STS theories are connected to the institutional arrangements of the contexts where these theories were produced, and that this can in turn end up reflecting very specific notions of *how* society or politics should work, and hence, how research is done? Looking at exactly how a field is institutionally composed and re-composed could also reveal something about these notions.

The world we study

In his history of the rise of STS in the UK, John Law (2008) traces the origins of the field to 1960s sociologists with a special interest in technology, noting that the field of "science studies" branched off from mainstream sociology during the 1970s, taking up impulses from anthropology, geography, history of science and philosophy of science. In his telling, STS is a happy amalgam of other disciplines which seems to be a way forward for the social sciences. He also stresses the strength of "arguing through case studies", which can be seen as an antidote against sweeping generalizations. The importance of case studies is also recognized by Peter Dear and Sheila Jasanoff in an essay discussing the relation between STS and the history of science. Here, they claim that STS is more an object-centered field of study than a discipline in the narrow sense (Dear & Jasanoff, 2010), meaning it consists more of a set of perspectives that can be mobilized in the analysis of a given phenomenon, for example through metaphors of networks, controversies or materiality, than a prescribed sequence of steps to follow. This is a reasoning common for other interdisciplinary fields such as visual culture studies, social geography or gender studies as well, all of which share a certain affinity with STS.

The distinction between a field and discipline can be useful for thinking about the meanings and implications of the term "Nordic STS". If STS is an interdisciplinary, object- (or case-) centered field, then the objects approached must be firmly placed in context. Thus, while the objects of STS might very well be global or universal, they are also inherently local. This object-centeredness might again be a fruitful entrance to the question of empirical studies. In the following section, we give a brief overview of some of the types of empirical research that have been undertaken in a Nordic STS setting:

Could it be that the types of large institutions that are prevalent in the Nordic countries play a distinct role in the types of topics that have been and continue to be discussed within Nordic STS? That the welfare state does not just provide the type of state-sponsored support which makes so many outside the Nordic countries somewhat skeptical, but also provides STS scholars with a wealth of interesting subject matter for further study?

One example can be drawn from the debate at Hell, where Kristin Asdal used the term "the science-state" nexus when pointing to an important difference between STS in a Nordic context and the U.S. Where much American STS-research has centered on the interface between science and industry, much Nordic STS-research centers on the crossroads between science and the state.¹ The Nordic welfare states are highly involved in the shaping of both scientific research and technological development, and the involvement seem to take different shapes as they both initiate, fund, shape and respond to much of the research being conducted. There are however significant differences between the Nordic countries. Whereas Sweden has large industrial funds going into research, the private funds available to researchers in Norway are microscopic compared to state funds (Skoie, 2005). In addition, there was a significant build-up of state ownership in Norwegian industry after WWII, a trend that seemed to strengthen as Norway struck oil (Sejersted, 2005).

According to Aant Elzinga, Swedish STS grew out of a discussion about research policy in the 1960s and that centers investigating questions related to science, technology and society were established in the 1970s. He identifies Lund and Gothenburg as universities that had significant groups. However, writing in the 1980s, Elzinga concluded that in Sweden, policymakers and bureaucrats showed little interest in the field (Elzinga, 1980). Since Elzinga wrote his article in 1980, this seems to have changed, and the Swedish STS-community has grown considerably. The Center for Science and Technology studies in Uppsala has become a hub for associates from a range of departments and disciplines and focus on two broad research programs: Science, technology and business, and science, technology and research policy, respectively. Several of the projects focus on the sectorialisation of research and the role of the University in the new innovation economy.² At the Royal Institute of Technology's Department of History and Philosophy of Technology, the research is more focused on technology and infrastructures. Thematically the research includes energy systems, technological systems and European integration, ICTs, and the infrastructures of arctic knowledge.³ At the University of Linköping, the Department of Thematic Studies contains the research unit for technology and social change. The research at the unit focuses on energy infrastructures, as well as environmental and medical STS and everyday life in past and present societies.⁴

The Danish organization of the STS-field is somewhat different from the Swedish. First of all, the Danes have established a national association for science and technology studies. In keeping with the science-state nexus, the Danish association for science and technology studies (DASTS) grew out of a research council initiated network for the history and philosophy of science that was established in 1994. DASTS was established to stimulate quality, breadth and cooperation within the STS-community in Denmark and to promote Danish STS in the national and international community. DASTS has about 400 members from a range of disciplines and academic institutions and ties these together with the help of a mailing list, the electronic newsletter "Hugin and Munin" and the journal "Encounters".⁵ That STS in Denmark is institutionalized through a national association may signal that in Denmark there are rather few dedicated STS departments or centers. The Center for Medical Science and Technology Studies and the Center for Science, Technology and Society at Aarhus University are two examples of the opposite. Still, many Danish STS-groups seem to be situated within thematically oriented research groups, centers or departments rather than field demarcated institutions. This makes the STS-scene quite diverse, but at the only dedicated centers medical STS is prevalent. Other important research themes for the Danish community are sustainable transitions, media and innovation.⁶ Compared to the Swedish case, historical STS seems to have a weaker standing than anthropological and sociological perspectives in Denmark, which is illustrated by the newly established research group "Technoanthropology" at Aalborg University.⁷

Finland is the other Nordic country where a national organization exists to gather all the animals of the STS-forest. The "Society for science and technology studies" was established in 1985 and gathers just over one hundred members.⁸ Finland is also home to one of the larger STS journals in Europe, *Science and Technology Studies*, now the official journal of the European Association for the Study of Science and Technology (EASST).⁹ Furthermore, Finland houses the Research Center for Knowledge, Science, Technology and Innovation studies at the University of Tampere. This center does research ranging from the politics of knowledge, institutions and research community, via technology and everyday life and to the study of innovation systems.¹⁰ As in the other Nordic countries, there are significant STS groups situated in other institutions than the dedicated STS-centers, and many of the groups are very active in educating PhD-students and conducting research.¹¹ Also, the University of Helsinki and Aalto University have established the network unit Helsinki institute of science and technology studies (HIST). This institute is to strengthen the research and education and the institutional basis for Finnish STS. Research at this institute includes research on green economies, innovation, risk governance, nanotechnologies and climate policy.¹²

The Center for Technology, Innovation and Culture (TIK) is one of three established Norwegian STS research centers. As the other STS-institutions in Norway, this center was established in the 1980s in the aftermath of discussions about the social consequences of new science and technology. TIK has two main foci of research: Innovation studies and science, technology and culture. Whereas the first group is oriented towards the study of innovation systems, the latter approaches science and technology with a focus on policy and politics. Of research topics, we can mention that TIK-researchers are investigating the politics of nature, risk, expertise and consumption.¹³ The sibling STS-institution of TIK is the Center for Technology and Society (CTS) located at the Department of Interdisciplinary Studies of Culture in Trondheim. Here, the focus of research tends to be on STS related to ICTs, energy and climate change, biopolitics and consumption.¹⁴ In addition, TIK and CTS cooperate through the Center for Sustainable Energy Studies.¹⁵ In Bergen, you find the Center for the Study of the Sciences and Humanities (CSSH). They focus on philosophy and theory of science and research topics include ethics of science and technology, uncertainty and risk as well as the evaluation of the social impact of science and technology.¹⁶

So far, Iceland does not have an established STS institution in itself, but there are clusters of related work being done, for example in the Center for Equality, Diversity, Development and Advancement (EDDA)¹⁷ at the University of Iceland, which does work on questions of sustainability, citizenship and transition theories among others.

A flavour of ones own

What can we make of this quick look at STS institutions in the Nordic countries? First of all, it's clear that many of the scholars identifying as STS-scholars are not situated at dedicated STS-departments or centers. Some are located at disciplinary units such as departments for sociology, history, anthropology, while others are working in what is termed the institute sector. However, this is more or less the *modus operandi* for STS all over the world. As stated in the introduction of this article, Nordic STS does enjoy a high degree of institutionalization and the various institutions do have a different flavor of STS-research. This is perhaps best illustrated by the strong position enjoyed by historical STS in Sweden and the strong position of anthropology in Danish STS. Also, Norwegian STS communities can be said to have an interest in the integration of science and technology in common, while the Swedes seems to be more geared towards infrastructures and institutions. This might have historical reasons that involve the shape of the R&D-systems in Norway and Sweden, but also the structures of economic life: Where Norwegian economic life centers on raw materials and has imported most of its technologies outside the specific petroleum- related ones, the Swedes have a strong industrial-innovation legacy.

We have tried here to give a very rough sketch of what STS in the Nordic countries might entail. Of course, providing a more detailed picture will require more extensive work (and more space!), as the STS-jungle in the Nordic countries has grown so wild that mapping it completely would be almost impossible¹⁸. However, the ways in which Nordic STS researchers have pursued research into the "science-state" nexus might give us some insight into the questions posed in our initial discussion of the ways a Nordic STS might merit attention.

Nordic STS has for the most part relied on using concepts from the general, international STS literature, even though exceptions exist, for example the work done on domestication theory (Williams & Sørensen, 2002). Still, the process of translation and domestication has resulted in a highly diverse field, which speaks to the general usability and malleability of theory. In light of this, we have tried to show how STS in the Nordic countries both carries on work within a clear tradition, and gives that tradition as it is expressed in those countries a flavor of its own.

This particular flavor is something that has been shaped in close relation to the wider socio-political contexts at work in the Nordic countries and we believe this is some of the rationale behind establishing a Nordic journal of science and technology studies. The idea is that this can be a journal where scholars can develop ideas in their own language and by confronting local empirical cases before delving into the more generalized sphere of international publication. Also, we believe that a journal particularly aimed at Nordic conditions is necessary in as much of the STS-research in the Nordic countries is supported by national research councils. Thus, publishing in a Nordic journal could be one way of answering to the particular problems and questions raised by the political, social and economic situations in these countries.

We also think STS is particularly well-suited for this type of work. We see in STS the potential for a cosmopolitan type of theory¹⁹, one that disseminates across borders, languages and epistemic cultures and simultaneously morphs and incorporates local impulses. The analogy of a rhizome might seem a tired one, but if there is one type of thinking that has the ability to move and grow rhizomatically, it has to be STS, a point already made in a discussion of Norwegian STS (Sørensen, 2012). Drawing on this, we see many possibilities for Nordic STS to spread out in the future.

We also believe that the examples of ways that STS has been done in the Nordic countries that we provided earlier demonstrate that this tendency always has been present in the discipline. This can be nothing but a strength. After all, why is science and technology studies oriented research coupled with gender studies in Trondheim yet located in a business school in Copenhagen? Why do STS scholars combine so well with history in Sweden but move in the field of innovation studies in Finland? Don't these examples demonstrate that STS is uniquely capable of handling the interdisciplinary challenges of modern social research? We think so, and welcome the opportunity to contribute to the continued messy growth of the roots and shoots that stem from what Donna Haraway has called the "fertile compost pile" of science and technology studies.

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Endnotes

1 She seems to play on the work of Creager et al. (2004), but the literature on the triple helix of science, state and industry also springs to mind (Etzkowitz & Leydesdorff, 2000).

2 <http://www.sts.uu.se>

3 <http://www.kth.se/en/abe/om-skolan/organisation/inst/philhist/2.3231/Forskning/forskning-1.12538>

4 http://www.tema.liu.se/tema-t/forskning_t?l=sv

5 <http://www.dasts.dk>

6 http://www.dasts.dk/?page_id=23

7 http://vbn.aau.dk/da/organisations/pp_5a5ba97a-6f42-47c2-827d-226202ed66f8.html

8 <http://www.fssts.fi/index.php?page=news-2>

9 <http://www.sciencetechnologystudies.org>

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12 <http://blogs.helsinki.fi/helsinkists/>

13 <http://www.sv.uio.no/tik/om/>

14 <http://www.ntnu.no/kult/sts>

15 <http://www.ntnu.no/censes/forskerne>

16 <http://www.uib.no/en/svt>

17 <https://edda.hi.is/>

18 As we see it, this is in itself a good reason for establishing a Nordic STS journal.

19 As suggested by Stengers and Bononno (2011)

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