

Swedish Science and Technology Studies (STS) Conference

LUND UNIVERSITY | CAMPUS HELSINGBORG | 19-20 MAY 2016



Welcome to the Swedish STS conference 2016!

We are hoping you will enjoy the conference and the city of Helsingborg.

Christer Eldh, host
Kerstin Sandell, coordinator
Boel Berner
Elin Bommenel
Anders Hylmö
Victoria Höög
Maria Moskovko

Program

19 MAY:

09:00 – 09:30 and 11:00 – 12:30 **REGISTRATION**

09:30 – 11:30 **PRE-CONFERENCE WORKSHOP** for young researchers: Doing STS at the margin
PhD's in room C217 | Post docs in room C218

11:30 – 12:30 **LUNCH** at Amica

12:30 – 13:00 **WELCOME**, room U203

13:00 – 14:30 **SESSIONS A** (more information about each session on pages 10-13)
A:1 Science and technology in society: Controversies and debates, C217
A:2 Knowledge interactions, C218

14:30 – 15:00 **COFFEE BREAK**

15:00 – 16:30 **SESSIONS B** (more information about each session on pages 14-19)
B:1 Science Policy I: Experts, politics and the transformation of academia, C217
B:2 Medicine I: Knowing bodies and souls, C218
B:3 Environment and resources, C224

16:45 – 18:00 **PANEL ON EMERGING METHODS AND METHODOLOGIES**, room U203
(more information about the panel on page 8)

19:00 – 21:00 **DINNER ON THE FERRY** between Helsingborg and Elsinore

Program

20 MAY:

08:30 - 09:00 **REGISTRATION**

09:00 – 10:00 **KEYNOTE SPEECH WITH AMADE M'CHAREK** - (Sur)face: Notes from Forensic Identification on Race and Sameness, room U203

10:00 – 10:30 **COFFEE BREAK**

10:30 – 11:30 **SESSIONS C** (more information about each session on pages 20-25)
C:1 Science Policy II: Governance and innovation, C217
C:2 Medicine II: Configuring experts and users, C218
C:3 Standardisation and instrumentation, C224

11:45 – 13:00 **PARALLELL PANELS** (more information about the panels on page 9)
1. Evidence-based, Evidence-biased or Evidence-less? Perspectives on practices of evidence-basing in STS and beyond, room C217
2. STS research for sustainable sustainabilities, room C218

13:15 – 14:15 **LUNCH** at Amica

14:30 – 15:30 **DUNKERS TOUR**

Keynote

(SUR)FACE: NOTES FROM FORENSIC IDENTIFICATION ON RACE AND SAMENESS

Amade M'charek, professor at Amsterdam University

The keynote speech is related to M'charek's ERC project Race Matter: On the Absent Presence of Race in Forensic Identification.

In my lecture I explore the production of sameness and its relation to race by attending to the biologization of the phenotype in forensic identification.

It has widely been observed that while the human genome speaks to the communality in the genes, the alleged 0,1% of genetic difference has become the prime object of attention in the life sciences. And as these things go, the 0,1% of difference has also caught the attention of an ever-growing scholarship in the social sciences and the humanities. It has been argued that while genetics is not upfront about racial classifications, its technologies and methods are contributing to the molecularization of difference and the production of race. Race thus dived under the sur-face.

In my paper I want to make two related interventions. First I will argue that rather than a molecularization, a zooming-in into the body, we are witnessing a growing interest for the surface of the body. We are witnessing the return of the phenotype. In genetics the phenotype (physical appearance) is increasingly biologized. I will draw on examples from forensic genetics and show the growing in-

terest in the biology of the phenotype and particularly the biology of the face. I will argue that the giving of a face to an unknown individual (suspect or a victim), the aim of DNA-phenotyping technologies, goes hand in hand with the doing of race.

Second, genomic research on human variation and its emphasis on markers of difference, contributes to an idea that whereas differences are produced, similarities and sameness are given. Indeed, an emphasis on difference seems to suggest that in the context of race, differences might be political or a negative while similarities are curiously apolitical. The production of sameness, resemblance and equivalence has thus received little attention in critical analyses. In my paper I will switch the focus from difference to sameness and explore its potential for understanding race.

20 MAY
09:00-10:00
room U203

Panels

PANEL ON EMERGING METHODS AND METHODOLOGIES

To greater and lesser extents, STS approaches insist that research practice intervenes in the in-the-world activity it is studying. This panel will explore ways of interacting with the field, cross-disciplinary experiences and some practical methodological opportunities of relating to other ways of knowing, and of intervening in the world.

MODERATOR:

Boel Berner, Linköping University

PARTICIPANTS:

Alexandra Waluszewski, Uppsala University
Corinna Kruse, Linköping University
Ericka Johnson, Linköping University
Morten Nissen, Aarhus University
Thomas Kaiserfeld, Lund University
+ more to be announced

19 MAY
16:45-18:00
room U203

1. EVIDENCE-BASED, EVIDENCE-BIASED OR EVIDENCE-LESS? PERSPECTIVES ON PRACTICES OF EVIDENCE-BASING IN STS AND BEYOND

Evidence-based approaches have become an important ideal pursued in a range of areas, perhaps most prominently in contemporary medicine. In this panel discussion, STS scholars meet government officials to discuss the drivers, complexities and consequences of evidence-basing.

MODERATOR:

Morten Sager, Gothenburg University

PARTICIPANTS:

Alexander Björk, Stockholm University: I just finished my dissertation on the enactment of Evidence-based practice in the social services field and I am currently teaching at the Department of Social Work, Stockholm University about standardization and knowledge and evidence use in social work practice.

Charlotta Levay, Lund University, is associate professor in business administration at Lund University and member of research programme Vetenskap och beprövad erfarenhet (www.vbe.lu.se). She conducts research on organisational issues in health care and is currently studying clinical registries as bridges between medical research and practice.

20 MAY
11:45-13:00
room C217

2. STS RESEARCH FOR SUSTAINABLE SUSTAINABILITIES

Environmental sustainability has become a powerful boundary object, gathering a variety of actors and projects. This panel invites to discussions of this ambiguous and contested concept. Questions addressed include: How is environmental sustainability defined and mobilized, by whom, and for whom? Whose interests and voices are represented in sustainability projects? How can STS researchers move on from deconstructing sustainability, to reconstructing it on different and more inclusive terms?

MODERATOR:

Anna Kaijser, Linköping University

PARTICIPANTS:

Simon Ceder, Lund University
Johan Gärdebo, KTH
Jutta Haider, Lund University
Christer Nordlund, Umeå University
Karin Skill, Linköping University
Josefin Wang, KTH

20 MAY
11:45-13:00
room C218

Sessions A

SESSION A:1 - SCIENCE AND TECHNOLOGY IN SOCIETY: CONTROVERSIES AND DEBATES

(Chair: Victoria Höög, Lund University)

Kristian Hvidfelt Nielsen

(Aarhus University) (khn@css.au.dk): *Nordic STS: a tentative historical, conceptual and geographical exploration.*

In the Nordic countries, the field of science and technology studies (STS) has roots in the early 1960s boost in higher education and in social movements of the late 1960s and 1970s. The institutionalization of new academic fields such as the history of ideas and the history and philosophy of science and technology provided the intellectual backdrop for treating science and technology as integrated parts of social contexts. Around the same time, topics such as nuclear versus renewable energy, birth control and women's rights, and the use of automated methods of production and data processing gave rise to critical voices in other spheres of academia and society. This intellectual and social heterogeneity is still a common feature of STS across the Nordic countries.

This paper explores some of the most pertinent topics and approaches that have defined the STS community in the Nordic countries since the 1970s: history of science/ideas, energy and environment, science and government, health care, feminism, and public understanding of science. A list of academic Nordic institutions currently interested in STS will also be presented. This tentative exploration is but a first attempt to map the historical, conceptual and geographical networks of Nordic STS. The audience will be invited to join in with their experiences.

Christer Nordlund

(Umeå University) (christer.nordlund@umu.se): *Förväntningar, farhågor och strider: Om den internationella etik-, prioritets- och patentdebatten kring gentekniken CSIPR/Cas9.*

Utvecklingen av CRISPR/Cas9 betraktas som vår tids största livsvetenskapliga genombrott. Förhoppningen är att den s.k. gensaxen ska få stort genomslag både inom de areella näringarna och inom medicinen. I det senare fallet är tanken främst att åstadkomma genförändringar på avgränsade delar av kroppens celler, s.k. somatisk genterapi. Men någon gräns för vad som kan eller bör göras är inte given, och med stor potential följer också risker, som kräver etiska överväganden. Etiska spörsmål har diskuterats i förhållande till genteknik allt sedan 1970-talet och de har nu återkommit med förnyad kraft, särskilt sedan våren 2015 då det blev känt att forskare i Kina använt CRISPR/Cas9 för att genmodifiera mänskliga embryon. Biologer i USA har försöka dra upp riktlinjer rörande kliniska tillämpningar på människa, medan bioetiker i UK har efterlyst en bredare debatt där de etiska riktlinjerna inte sätts av de forskare som själva har intressen i frågan. Parallellt med dessa etikdebatter pågår även en strid om vilka forskare som lämnat de viktigaste bidragen till området, och vilka som bör få rätten till patentet. Avsikten med presentationen är att ge en inblick i dessa akademiska och publika debatter.

Linda Soneryd och Göran Sundqvist

(Gothenburg University) (linda.soneryd@gu.se): *Delegativ demokrati: accepterad, ifrågasatt och omkonfigurerad.*

Vetenskaplig kunskap och demokratisk styrning handlar båda om att dess auktoritet legitimeras av representation (naturen/fakta och medborgares önskningar/behov). Representationerna för vetenskap och demokrati delar ett intresse av att legitimera representationen, i syfte att skapa och underbygga auktoritet. Auktoriteten kan inte tas för given utan måste ständigt återskapas. Kritik och möjligheten till alternativ representation är ideal som delas i vetenskap och demokrati.

Den gemensamma principen om representerad auktoritet kan vi med Michel Callon och hans kolleger kalla delegativ demokrati (2009). Denna typ av demokrati baseras på två gränsdragningar som är starkt försvarade i västerländska demokratiska samhällen: gränsen mellan väljare och valda representanter och gränsen mellan lekmän och experter. De två eliterna av politiker och specialister utgör en dubbel delegation vilket leder till etablerandet av kategorierna 'lekmän' och 'medborgare', som inte anses kompetenta att delta i beslutsfattandet kring vare sig politiska eller tekniska frågor. När delegationen till en elit ifrågasätts uppstår 'läckage', vilket betyder att representationen försvagas. Ovanstående författare menar att så kallade 'hybrid forum', som luckrar upp de skarpa gränsdragningarna mellan eliter och väljare/lekmän, uppstår spontant som svar på läckage. Vi är inspirerade av men inte helt eniga med ovanstående tankegångar och undersöker i denna text varianter på begreppet 'delegativ demokrati' där vi utgår från att delegationer aldrig kan undvikas, men de kan accepteras, ifrågasättas och/eller omkonfigureras.

19 MAY
13:00-14:30
room C217

SESSION A:2 - KNOWLEDGE INTERACTIONS (Chair: Kerstin Sandell, Lund University)

Corinna Kruse

(Linköping University) (co-authors: Jenny Gleisner/Hannah Grankvist /John Sjöström) (corinna.kruse@liu.se): *Packaging, negotiating, translating: Transforming knowledge into practice.*

How does research-based scientific knowledge become practice? And, more precisely, how does knowledge produced in one context become practice in another? We want to present our brand-new research project. The project studies mediators as the pivot point between the production of (medical) knowledge and its use in practice, focusing on so seemingly disparate professions as veterinarian pathologists, midwives in parental education, and occupational health services providers.

Through ethnographic fieldwork, i.e. observing and interviewing mediators and practitioners in order to capture their perspective of their work, as well as analyzing guidelines, the project provides knowledge on how organizational conditions and context affect how knowledge is translated between contexts and transformed into everyday practice. We want to both understand the provision of knowledge to society better on a theoretical level and, in consequence, to facilitate for it in practice.

Anders Hylmö

(Lund University) (anders.hylmo@soc.lu.se): *Neoclassical and heterodox economics as styles of scientific reasoning.*

Since the 2008 financial crisis, various forms of critique of mainstream economics has been common. Most self-identified heterodox economists claim that academic economics is in crisis because of a dominant but faulty neoclassical way of doing economics, which includes an insistence on formal mathematical modelling practices. In this paper, the neoclassical dominance and the heterodox critique is approached as a sociological problem.

The paper draws on an interview study with researchers from top Swedish economics departments. I argue that the dominant conception of economics and the heterodox critique can be fruitfully understood using Ian Hacking's concept of styles of scientific reasoning. These are distinct historically enduring conceptions of ways of doing science that include ontological and methodological presuppositions and prescriptions. It is a promising tool for empirically studying the different and fragmented, but still relatively historically enduring, ways in which scientific problems are formulated, thru which truth and objectivity are pursued. I furthermore argue that different styles of reasoning are embedded within different thought collectives involved in boundary work, so that the conflict between mainstream neoclassical and heterodox economists can be understood as a fundamental conflict between styles of scientific reasoning.

Jens Eklinder Frick

(Uppsala University) (jens.eklinder@sts.uu.se): *Policy initiated regional innovation – clustering or interacting for knowledge?*

The European Union has an ambition to become the world's most competitive and knowledge-based economy, which entails investments in cluster initiatives. Most researchers, however, find that these investments have had limited impact. The notion of creating industrial clusters is influenced by new economic geography where research interests are geared towards facilitating knowledge exchange between industry, university and government.

In order to understand how knowledge is created and enacted within a cluster initiative this paper investigates the interactions between actors participating in a specific innovation process. The study of one of the 55 clusters awarded as demonstrating highly sophisticated cluster management by European Union officials indicate that the cluster approach encourages a "disentangled" view of knowledge. Disentangled knowledge is seen as universal and cognitive and therefore possible to disentangle from the context in which it was initially produced. However, my findings suggest that in practice knowledge is "entangled" in the specific context in which it is being enacted and produced. Thus, in practice knowledge is a contextually limited and practical activity that is being enacted when heterogeneous resources interact in producer-user interfaces. This mismatch between strategy and outcome may subsequently help to explain the limited impact of policy on regional growth.

19 MAY
13:00-14:30
room C218

Sessions B

SESSION B:1 SCIENCE POLICY I: EXPERTS, POLITICS AND THE TRANSFORMATION OF ACADEMIA (Chair: Jane Summerton, The Swedish National Road and Transport Research Institute)

Ingemar Pettersson

(Uppsala University) (ingemar.pettersson@ekhist.uu.se): *Den produktive forskaren. Vetenskapens rationalisering i efterkrigstidens Sverige.*

Efter andra världskriget gjordes enorma satsningar på vetenskaplig och teknisk forskning i Sverige. Från 1945 till 1965 ökade det offentliga stödet till forskning vid universitet, högskolor, statliga forskningsinstitut och laboratorier från 34 till 578 miljoner kronor. Förändringen slog igenom på olika plan: begrepp som "forskningspolitik", "innovation" och "samverkan" gjorde entré inom politiken, nya organisationer tillkom för att driva på exploatering av forskning och universitetssektorn byggdes ut för att bli en central komponent i samhällsbygget.

Vi förstår i regel forskningspolitikens genomsnitt under efterkrigstid i termer av ökad finansiering, ideologisk förändring och organisatoriska reformer men jag menar att det fanns en viktig normativ sida av förändringen där nya ideal kring vetenskap fick spelrum. En ny grupp aktörer bestående av bland annat företagsekonomer, psykologer och ingenjörer började intressera sig för hur forskarens arbete kunde formas och effektiviseras för att komma industri och samhälle mer till nytta. Min studie fokuserar på hur frågan diskuteras i och omkring Ingenjörsvetenskapsakademien omkring 1960-talet och hur det växte fram en rationaliseringsrörelse med syfte att göra forskaren mer produktiv

Pär Wikman

(Uppsala University) (par.wikman@ekhist.uu.se): *Experttrubbel – Varför är samhällsvetenskap vetenskap?*

Det finns ingen ren vetenskap och vetenskap och politik går inte att skilja från varandra men likafullt finns det vetenskap och det finns politik. Det finns aktörer som skapar vetenskaplig kunskap och det finns aktörer som beslutar om hur samhället ska se ut. Den gamla insikten att veta är att disciplinera är att ha makt har gjort den analytiska gränsdragningen mellan vetenskap och politik överflödig men aktörerna som skapar vetenskap och som skapar beslut envisas trots detta med att dra en gräns mellan verksamheterna. Det innebär att undersökningar av den praktiska interaktionen mellan vetenskap och politik måste ta hänsyn till den gränsen.

Den norske sociologen Rune Slagstad har myntat begreppet reformteknokrat för att beskriva aktörer som både skapar vetenskaplig kunskap och formulerar politiska reformer. Reformteknokratsbegreppet beskriver en aktör som överskrider gränser i ett sammanhang där gränsdragning var viktigt. Inom samhällsvetenskapen som den såg ut under 1950-talet, när vetenskapliga experter aktivt deltog i konstruktionen av den Svenska välfärdsstaten, var den gränsen i praktiken obefintlig men trots det teoretiskt viktig. Varför var det viktigt att det fanns en gräns mellan vetenskap och politik? Hur upprätthölls den? Går det att förstå reformteknokraten som en funktion i den moderna staten?

Daniel Normark

(co-author: Olof Ljungström) (Karolinska institutet) (Daniel.Normark@ekhist.uu.se): *How to make a Macchiarini soup.*

Pablo Macchiarini har i den medierade offentligheten gått ifrån hyllad och modig kirurg till lurendrejure och sociopat i ett rasande tempo. Samtidigt har Karolinska Institutet fått en rejäl törn som omistligt framgångsexempel bland Sveriges lärosäten. Istället för att finna psykologiska eller etiska förklaringar på det moras som blottläggs genom Macchiarini-skandalen avser vi att presentera hur detta var möjligt genom att historiskt följa de organisatoriska förändringar som Karolinska Institutet (men även svensk forskning i stort) genomgått de sista 30 åren.

Vi anser att man måste förstå konflikten utifrån ett perspektiv där akademien med den nationella politiska nivåns tillskyndan och goda minne "leker marknad". Detta påskynas av en politisk fixering över att forskning, främst vid naturvetenskapliga, tekniska och medicinska forskningsmiljöer, förväntas generera avkastning i form av innovationer. För KI började detta redan vid omorganiseringen 1993 där institutet efterapade amerikanska näringslivsorganisationer. Skandalen kan ses som en konsekvens av dessa förändringar.

Både marknaden och den akademiska forskningskollegialiteten är införstådda med konkurrens, men utifrån olika moraliska ekonomier. Vår misstanke är att en konfliktlinje i "Macchiarini-affären" — den mellan Macchiarini och KI:s ledning kontra visselblåsarna (Ginnemo m.fl.) — inte bestämts av att ha förståtts som en konflikt vare sig inom akademien eller vårdsektorn, utom som en konkurrenssituation inom en marknadslogik. Därmed exemplifierar händelsen en konsekvens av en lång förändringsprocess där KI utvecklats mot en näringslivsorganisering på bekostnad av traditionell akademisk kollegialitet.

19 MAY
15:00-16:30
room C217

Nora Schmidt

(Lund University) (nora.schmidt@kultur.lu.se): *Does international academia rule out East-African SSH researchers?*

The Social Sciences and Humanities (SSH) in Eastern Africa are almost invisible from a European perspective. Low levels of funding and lacking infrastructure are well-known reasons for that, being rooted in political economy. However, there are also reasons that lie in the structure of "international" academia itself: "international" information aggregators do not include East-African publications, "international" journals do not publish research results on "local" topics (except if they tackle a top-ranked "research nation"), the "international" quality standard is actually an US-European standard.

This research project brings together analyses of the scholarly publishing infrastructure used in East-Africa, citation analyses, qualitative analyses of the publications' content and Action Research with East-African scholars. How do they construct their researchers' identity in the context outlined above? Can an allegedly all-encompassing social theory like the Luhmann's Social Systems Theory help to see these postcolonial phenomena clearer? The presentation will open the doors to the research project's workshop and let irritation in!

SESSION B:2 MEDICINE I: KNOWING BODIES AND SOULS (Chair: Malin Ideland, Malmö University)

Ericka Johnson

(Linköping University) (ericka.johnson@liu.se): *Refracting bodies through technologies.*

In this paper I will talk about how I've been thinking around technologies refracting discourses. I've been working with discourses and technologies (medical technologies, in my material) and trying to conceptualize the relationship between them. I've been seeing how medical technologies articulate silent understandings, highlight cultural values, emphasize subtle ideas.... And that studying these refractions in and by technological artefacts can help articulate the discursive contours we live within. And give us words to challenge them. Engaging other theoretical tools from feminist science studies and using examples from some of my recent work on pharmaceuticals and material discursive practices of the body, I will discuss what I mean with refraction as a theoretical concept.

Jonas Ringström

(Kristianstad University) (jonas.ringstrom@hkr.se): *Boundary work in psychotherapy research.*

Inom psykoterapiforskning och -utvärdering är evidensbaseringsparadigmet normerande och tillhandahåller metoder för att skilja god forskning från dålig forskning, för att reglera forskningsfinansiering, och för att förmedla kunskap till beslutsfattare och praktiker. Detta paradigm är inom fältet knutet till kognitiv beteendeterapi (KBT), som lyckats anpassa sig efter paradigmet logik och visat sig producera goda resultat. Under senare år har en grupp forskare och praktiker initierat vad de menar är ett nytt paradigm inom psykoterapiforskning och -utvärdering: Contextual Behavioral Science (CBS).

I detta paper analyserar jag debatten mellan representanter för CBS och KBT med hjälp av Thomas Gieryns begrepp boundary work. Boundary work definieras av Gieryn som vetenskapares försök att särskilja det egna arbetet från konkurrerande aktörer, med målet att monopolisera auktoritet och resurser inom sitt fält. Papret diskuterar hur representanter för CBS menar att de representerar ett nytt paradigm i förhållande till både de traditionella kognitiva modellerna inom psykoterapifältet och gentemot evidensbaseringsparadigmets värdering av vetenskaplig kunskap. Debatten mellan CBS och KBT rör huruvida ett paradigmskifte pågår inom psykoterapifältet. De gränser som dras formar konturerna för vad man menar är mer effektiva sätt att vetenskapligt förklara och påverka mänskligt beteende, samt för hur sådan vetenskaplig kunskap ska förstås och utvärderas.

Moa Goysdotter

(co-author: Kristofer Hansson) (Lund University) (moa.goysdotter@kultur.lu.se): *Searching for implementation drivers: improving knowledge transfer within a biomedical research organization.*

One of the major challenges facing biomedicine today is how knowledge generated in basic science can be transferred to translational science and clinical science. Currently, little research exists on how knowledge is communicated in networks consisting of scientists in different stages of biomedical research. This presentation is a report from an ongoing project on how to improve the implementation of new and relevant knowledge within a biomedical research organization - how to go from knowledge to practice.

The project aims to investigate translational processes and knowledge transfer between basic, translational and clinical science, in order to define incentives and obstacles to implementation drivers central for the progress of a research program. We also want to present and discuss the possibilities to use an sts-perspective to analyze the translational processes and knowledge transfer. How can it be used in order to understand the metaphor of translation? What kind of translation is going on today? How are these translation practices related to policy processes on a national and an international agenda? This presentation will dwell upon our previous and ongoing studies in the field concerning xenotransplantation, stem cell research, and the use of animal models.

19 MAY
15:00-16:30
room C218

SESSION B:3 ENVIRONMENT AND RESOURCES (Chair: Harald Rohrer, Linköping University)

Sabine Höhler

(KTH, Stockholm) (sabine.hoehler@abe.kth.se): *Local disruption or global condition? Satellite stories of El Niño.*

El Niño denotes a periodical warm water stream in the Pacific Ocean. El Niño “the boy” emerged as a fabric of local experiences and stories of extreme weather events: tropical winter storms, floods, droughts and famines in the coastal states of South America, Indonesia and Asia. This rich cultural history went largely unnoticed in the Northern Hemisphere. Only in the 1980s and 1990s did El Niño acquire global recognition as an effect of the oceanic and atmospheric currents in the tropical Pacific region. As the oceans moved from a marginal to a central position in the discourse on the earth’s climate cycles, ENSO – the El Niño Southern Oscillation – became an indicator of global climate change.

This paper explores El Niño “the boy” and ENSO El Niño Southern Oscillation as juxtaposed and superposed environmental experiences. While El Niño the boy conveyed catastrophic experiences on the human scale, ENSO became known through terrific scientific views of earth from space. The case of the US-French orbital remote sensing satellite TOPEX/Poseidon during the El Niño winter of 1997-98 demonstrates that the technoscientific approach did not prevent catastrophic events. Satellite oceanography removed the catastrophic from the picture of scientific regularity. From the data sets of remote sensing satellites, recurring local disruptions emerged as a periodic global climate condition.

Darcy Parks

(Linköping University) (darcy.parks@liu.se): *Performativity of visions in assembling a climate-smart city district.*

“Climate-smart Hyllie” is a new city district under construction in Malmö, Sweden. The 2011 Climate Contract, an agreement between the city government and the energy company E.ON, envisions Hyllie as a climate-smart demonstration project. This vision proposes a smart grid and a goal of being climate neutral by 2020. Five years later, the smart grid is in its infancy and the climate neutrality goal is at risk. What role has this vision played?

This paper integrates assemblage urbanism and the sociology of expectations to analyse how smart city visions contribute to urban change. My analytical starting point is that visions are generic expectations that the city government, E.ON and others create and interpret strategically. I follow how visions become performative in attempts to attract resources and build coalitions within the multiple sites and processes where Hyllie is being assembled. I analyse how the credibility of the Climate Contract is interdependent with specific project expectations.

My analysis shows that the Climate Contract is an important resource for E.ON, an international privately-owned energy company, as it tests and commercialises smart grid technologies. However, E.ON and the city administration struggle to maintain the contract’s credibility due to a competing vision and unfulfilled promises.

Hanna Vikström

(KTH, Stockholm) (hanna.vikstrom@abe.kth.se): *Gas or electric lighting? Illuminating the role of rare metals.*

Lighting technologies has illuminated the world. While much is said about the implications of light there are few studies regarding the materiality of light. Only a few elements have the desired properties, access to them is crucial for the manufacturing process. The 2014 Nobel Prize in Physics was awarded for a process to create blue LEDs using gallium – a rare metal extracted mainly in China. This dependence on China’s metals for lighting technologies is only the latest example of how lighting is connected to geology and geopolitics.

This article explores metals scarcity in the formative period of incandescent lighting from 1880 until 1914. Previous research has acknowledged that metals scarcity was a problem for lighting technologies, but has not investigated why it was a problem, how it affected the technology and how the manufacturers acted from the notion of scarcity. They worried about the high prices, which threatened to make new lighting technologies unviable.

As light bulbs and gas mantles became the first commercial technologies that used metals such as thorium, osmium and tantalum, these new technologies made minerals into strategic commodities. This resulted in a search for these sparsely distributed metals, creating new trade relations and competition for access.

19 MAY
15:00-16:30
room C224

Sessions C

SESSION C:1 SCIENCE POLICY II: GOVERNANCE AND INNOVATION (Chair: Linda Soneryd, Gothenburg University)

Maria Moskovko

(Lund University) (maria.moskovko@fek.lu.se): *Multi-level governance of new Big Science.*

New Big Science (NBS) is characterized by new demands for large-scale research infrastructure. In the context of contemporary Europe, these demands are primarily driven by societal impact and transborder innovation. This contrasts extensively with the strong security aspirations and military interests of individual nation-states, common in the past. The European Research Infrastructure Consortium (ERIC) is a legal instrument of the European Union (EU) that facilitates establishment and operation of large-scale research facilities of strategic importance. Viewed from the STS perspective, this legal framework adds an extra degree of complexity to the governance of NBS in the cross-territorial setting of the EU.

This paper envisions a thorough literature review of a well-developed concept of multi-level governance applied specifically to science policy in the context of Europe. The aim of the paper is to sharpen the theoretical lens for examining the multi-level dimension of governance of science policy in the context of the ERIC. In its turn, this literature review is expected to lead to further conceptual development of the NBS. The STS conference is an uttermost timely and relevant occasion to share the theoretical base which may serve as a stepping stone for further investigation of an emerging concept of the NBS.

Alexandra Waluszewski

(Uppsala University) (Alexandra.Waluszewski@sts.uu.se): *Who reaps the benefits of innovation?*

"Companies within life science are developing products which most often has a very high value added. Such companies represent extensive export income to Sweden, large investments in research and development and many knowledge intensive jobs." (Prop. 2012/13:30, p. 80)

On the political and policy level, the Swedish life science industry is acknowledged as an important research and innovation area. A number of measures are undertaken to reach a) new science based innovations, represented by new and renewed life science companies, and b) to attract international pharmaceutical, med-tech and biotech companies' to make their innovations investments here. (Prop. 2012/13:30, p. 80)

However, less efforts have been made to analyse the distribution of benefits of these investments. The aim of this project is to investigate the relation between the extensive Swedish policy investments in the life science setting, and the 'innovation journey'; i.e. the commercialisation of new products/services. Which public and private actor; engaged in what activities, can benefit from the commercialization of new products/services? How are the social-material respectively monetary benefits distributed among the public and private actors investing in the innovation process, across time and space

Erik Brattström

(Lund University) (erik.brattstrom@fek.lu.se): *The role of values in priority setting for research, development, and innovation.*

Priority setting is the policy process the end of which is to direct science and technology (S&T) in order to generate certain socio-economic and epistemic benefits. Traditionally, scholars in the field of science policy have focused on technical aspects of priority setting (e.g. foresight and forecast studies) or on models for resource allocation (e.g. cost-benefit).

Less attention has been paid to how policy values (e.g. fairness, equity, efficiency, etc.) are enacted in the process. Scholars concerned with public policy values, on the other hand, have paid little attention to S&T priority setting as a policy area. Yet there is no reason to believe that S&T priorities would not embody certain policy values. This PhD project explores how policy values are embodied in S&T priorities and how they impact epistemic governance, that is, the formal and informal rules and regulations that structure and steer the production of new knowledge. The aim of the project is to understand these impacts from a policy values perspective. The project draws on a few cases from government agency initiated priority processes in Sweden. These processes typically involve expertise and stakeholder from various sectors.

20 MAY
10:30-11:30
room C217

SESSION C:2 MEDICINE II: CONFIGURING EXPERTS AND USERS (Chair: Elin Bommenel, Lund University)

Oscar J. Maldonado

(Linköping University)(oscar.maldonado.castaneda@liu.se): *On synopsis, tables and comparators (metrics).*

STS has directed recently its attention to the study of comparison and measurement (Stangers, 2011; Verran, 2011; Deville et al., 2016). These different works have pointed out the importance of comparison as a method and an epistemological object. STS has explored the performative nature of comparison and the ways in which it produces matters of concern. The question is: what is the contribution of an STS-sociologically framed comparison of these objects? In different cases STS scholars are compelled to analyze the practice of producing comparisons whilst at the same time we have the temptation and necessity of making my own comparisons.

This paper offers an account of this exploration, in the case of the project in which I am currently working Pharmaceutical and Health Subjectivities which encompasses three different studies with different approaches, emphasis and locations about HPV vaccines (Lindén in Sweden, Hanbury in UK and Maldonado in Colombia). This paper explores synopsis as a strategy to organize information and objects for making comparisons and as a metaphor to address the nature of a reflexive comparison in STS. Synopsis, attending to its etymology, is related with a simultaneous reading, with a whole and general sight to find similarities and differences.

Markus Idvall

(Lund University) (Markus.Idvall@kultur.lu.se): *Synchronizing self with science: How patients, family and public seek concord with clinical trials.*

In 2010 a biomedical research project called TRANSEURO started. The aim was to initiate clinical trials for transplantation with dopamine-producing neuro cells to patients with Parkinson's disease. Here the aim is to investigate how the still upcoming clinical trials, involving brain surgery, are perceived and waited for among patients, relatives and public.

What do people think about participating in clinical trials? What is needed for accepting one's own or (close) others' participation in trials? Does the material of the transplant have any significance in itself? What kinds of return are expected when people consider possible clinical participation? The study is based on six focus groups with 35 participants, representing patients, family and public. Distinguishing the tactical practice of synchronization is a tentative result of the study. When individuals accept participation in clinical trials they position themselves as temporal beings through a form of personal synchronization with the time frames of the clinical research. In the case of Parkinson's disease this cultural synchronization is intermixed with ideas about the fetus as access to experiment and the embodied self as a target for different bodily effects.

Boel Berner

(Linköping University)(boel.berner@liu.se): *On what kind of evidence? The rise and fall of lamb blood transfusion.*

The 1870s saw what later observers called a "widespread... and fanatical enthusiasm" for blood transfusion as a new and potentially lifesaving therapy – both for seriously ill patients and on the many battle fields of the time. Based on favourable reports from some doctors, a large number of transfusions were made across Europe with blood from lamb, including some in Sweden. But the practice was controversial and led to heated opposition and debates.

In this paper, I will discuss the arguments put forward to attack or defend the practice, and why it disappeared after a few years. To understand the controversy, I will use Nicholas Jewson's distinction between bedside, hospital and laboratory medicine with their different medical cosmologies and means of producing medical knowledge. I will also discuss the usefulness of the idea of a "risk object" to understand the uncertainties and contradictions involved in the assessment of medical evidence, and the ANT notions of problematization, interessement, enrollment and mobilization to chart the course of events.

20 MAY
10:30-11:30
room C218

SESSION C:3 STANDARDISATION AND INSTRUMENTATION (Chair: Christer Eldh, Lund University)

Derly Sanchez

(Lancaster University/Linköping University) (d.sanchezvargas@lancaster.ac.uk): *Sociomaterial orderings of the 'social': The production of work and social conditions in sustainability standards in the coffee sector.*

Sustainable coffees are marketed (and made recognizable seals) under third party supervised schemes that certified/verified production and harvest practices, post-production harvesting and transportation. This paper analyses the ways in which 'the social' is produced in Sustainability Standards and their audit infrastructures. Drawing on the codes, rules and standards about fair-trade and good work, I expand on the appropriation of "the social" as a dimension in commodity valuation. The enactment and the coding of the social has been done by translating social science in order to produce the social as an autonomous realm, entangled with the other dimensions of the farms as management systems.

Following the contribution of postcolonial and feminist technoscience I describe the position of work in standard setting and in the organisational network in which they are nested: Standards-Standards; Standards-Knowledge; Standards- Organisations (UTZ, Rainforest, Organic Movements, SAN); Standards-Social Structures (North-South). The coding of work and labour relations shows the tensions and othering that technoscientific infrastructures create (Mcneil, 2005:110). I highlight the tensions and social conflicts created by the clash between standardised good job criteria and local and traditional working practices, for instance, the place of child labour and familiar household economy.

Sjouke Beemsterboer

(Co-author: C. Koch) (Chalmers, Göteborg) (sjouke@chalmers.se): *Dreaming of a standard to discipline that building.*

The increased use of information models in the building sector have led actors to pursue different ways to create and use information about buildings. The building sector is witnessing the emergence of a big data narrative that promises the use of different types of structured and unstructured data to an extent that was previously impossible. Alongside these promises, we observe organised efforts to structure building information. Crucially, the structure of these information systems shapes and is shaped by the data that is collected about buildings and understandings of what a building is. Buildings and building information interact. In this context we turn our attention to ideas of similarity and homogeneity that emerge in the form of building information standards. Dreams of homogenous building information may come with desires to coordinate and control the building process at the expense of more unruly buildings.

We use literature on data practices and standardisation to explore and criticise the homogenising of building information. Building information standards are viewed as performative, as sociomaterial and its becoming as a process of power, politics and emerging interests. The findings will be illustrated with empirical material from a study of hospital projects in Scandinavia.

Kerstin Sandell

(Lund University) (kerstin.sandell@genus.lu.se): *The tension between measurements and experiments: making scientific instruments work.*

The focus of my research is the design of instruments for the two large-scale facilities being built in Lund, the European Spallation Source and MAX IV laboratory. They are built to provide unique instrumentation for experimental science. As such they are invested with hopes for new discoveries that can be used to solve problems facing the contemporary society through turning them into innovations, growth and prosperity. Since the investments in resources and hopes are high, failure is not really an option. However, experimental science is unpredictable in its outcomes, not least since it is pushing beyond what we already know.

In this paper I will explore how this is translated into the design process. I will articulate it as a tension between building an instrument that can be used as a tool and one that can be used for experiments, through using the work for Hans-Jörg Rheinberger. With a tool one can make measurements where it is basically known what is being measured. Experiments on the other hand are seen as being possible when pushing the designed instrument beyond current practices. I will explore some ways in which this is coming forward in interviews I have made with instrument scientists engaged in developing instruments for MAX IV laboratory. On the one hand in the understanding of different categories of users and how they are able to make use of the instrument and the assistance they will need. On the other on dimensions of complexity and risk versus stability and robustness in the design and realization of the instruments.

20 MAY
10:30-11:30
room C224

Participants

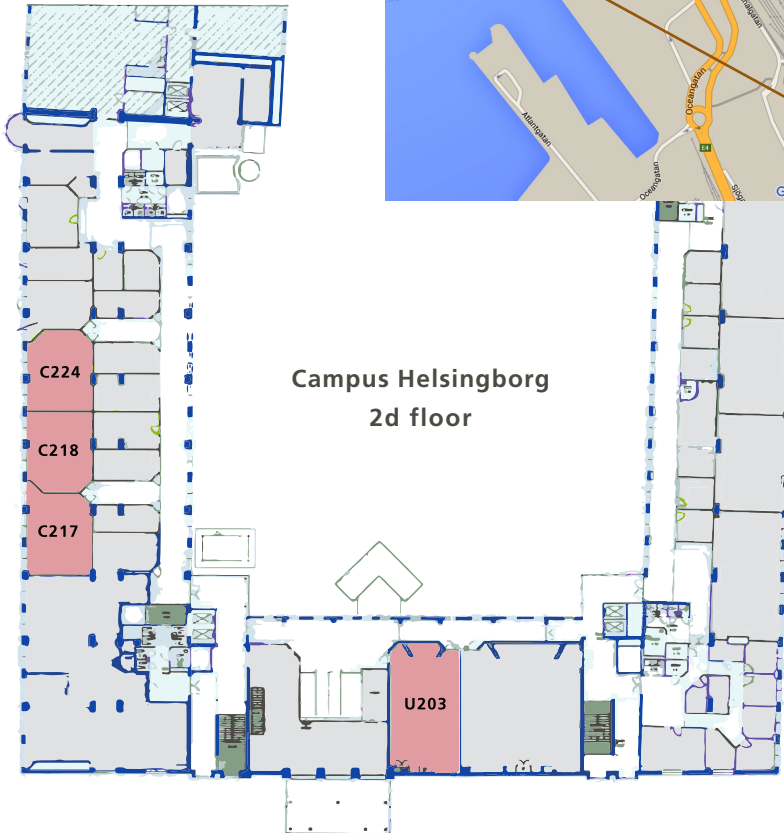
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