

C12 Colliding theories, cultures, and futures. STS view(s) beyond the horizon. Or: STS diaspora

Paper Review Sheet

Why Bogotá? The local, the global, and the interesting. Or: STS, here and there

Author(s)

Dr Malcolm Ashmore, m.t.ashmore@lboro.ac.uk (Honorary Fellow, Loughborough University, Registered)

Prof Olga Restrepo Forero, omrestrepof@unal.edu.co (Professor, Universidad Nacional de Colombia, Registered)

Short Abstract

Is doing STS in/from Lancaster 'the same thing' as doing STS in/from Bogotá? Is every-one and every-where equivalently 'placed'? In this presentation some of the issues involved - the fractal character of centre-periphery relations; what counts as 'local' or 'global' - are explored dialogically.

Long Abstract

At one of the weekly seminars of our STS group in Bogotá, Colombia, a native of New York City, USA, currently studying for her PhD in Edinburgh, United Kingdom, presented her work. She was studying IVF practice in Bogotá; that is (as we initially wanted to understand it) she was studying IVF practice, and she happened to be studying it in Bogotá (for 'uninteresting' reasons). Doing so meant treating this particular place as not particular; and, crucially, not treating it as the exotic source of a comparison with standard IVF practice done elsewhere (in New York City or Edinburgh). And immediately the question arose and persisted: Why Bogotá? Why study IVF here? What is interesting about Bogotá in this context? (And eventually a different question: is Bogotá uninteresting enough to sustain such a 'place/space-disinterested' approach?) Which are questions which, we claim, would not likely be asked if a similar presentation was taking place in-or-about a different Here, one situated in, perhaps, some Where in the 'centre' - like Lancaster...

Our dialogical presentation will explore some of the complexities involved here: questions of place/space in the provenance of knowledge; the tension between the new 'localist' emphasis in STS and the traditional idea of science's universalism; of centre-periphery relations, and their relational and fractal character; of the local and the global; of what is interesting, or not, and why, and where, and to whom.

Togetherness and co-creation in a VUCA-world - chances and challenges

Author(s)

Mrs Ursula Caser, ursula.caser@tum.de (Mediator, Technical University of Munich, Registered)

Short Abstract

The contemporary VUCA-world requires a shift from top down decision making to co-creation, based on a quintuple helix innovation model. Consequently, a stakeholder plurilogue, is needed which sees conflict not as a highway to dystopia, but uses it as a driver for reflection and consensual change.

Long Abstract

The characterization of our world as VUCA (Volatile, Uncertain, Complex and Ambiguous) is not new (Stiehm 2002), but took considerable speed in recent years to describe a need for change in meeting philosophy and decision making processes. The concept's application shifted quickly from military strategy to business management and extended rapidly to describe the planning environment of nearly all spheres of live (Mack et al 2015). Simultaneously the quintuple helix innovation model (knowledge production by university-industry-government relations plus media-and culture-based civil society plus the perspective of the natural environments) was developed (Carayannis et al 2012). This development urges a shift from traditional linear to simultaneous and synergetic thinking for problem solving. This is where togetherness has currently to ground: on a trustworthy, efficient and professionally mediated plurilogue between all affected and interested stakeholders (Caser 2014, Vasconcelos et al. 2015). The exponentially growing technical and digital development is well likely to provoke societal conflict; even civil unrest is not improbable on the long run. There is a serious danger that science will look to what is coming up with a merely scientific interest. STS-scholars and scientists must not implement plurilogues for their own research purposes and argue that - at the same time - they are serving civil societies' needs and aspirations. This paper will propose a middle way between sociotechnical imaginaries in bringing things together and the implementation and mediation of plurilogue in the "real world out there".

Web Impact on the Urban Indians' Ethnic Identity

Author(s)

Dr Rajesh Kapur, sinecurve7@gmail.com (Associate Professor, Thakur Institute of Management Studies Career Development and Research, Unregistered)

Short Abstract

My work focuses on identity issues vis-à-vis the urban Indian netizen; how the web is transforming ethnic stereotypes, based on the perspectives of primordialism, circumstantialism, and constructionism. A concurrent basis is the role of marginality in ethnicity fueled by the notion of outsiders.

Long Abstract

The primary areas of investigation are: 1) the nature of change through the Web in erstwhile primordialist or circumstantialist linkages; 2) the extent to the phenomenon of virtual communication, where one can (anonymously) have multiple identities dilution in traditional pyramidal social structures by offering a more seemingly equitable, virtual platform of congregation through constructivist means; 3) the extent to which ease of communication has lessened the sense of outsider alienation brought about by caste and inequitable opportunity; and 4) the effect that the ease of finding people with similar interests had on previously rigid concepts of ethnicity.

My aim is to discuss transformation of social structure amongst netizens in their interactions in an urban Indian milieu; and the impact that the proliferation of the Web has had on their interaction as a society.

Potentials of a widened concept of culture for gender research in STS. The example of Chinese and Indian female doctoral researchers in computer science at German universities

Author(s)

Mrs Katharina Losch, k.losch@ostfalia.de (PhD student, Ostfalia University of Applied Sciences, Registered)

Short Abstract

A widened concept of culture not only gives new insights into understanding 'doing gender' but also shows ways of questioning 'masculine' cultures. My doctoral project about Chinese and Indian female doctoral researchers in computer science at German universities represents such an approach.

Long Abstract

A focus of culture that refers to national borders is still widespread in research that analyses the way gender is (re-)produced in computer science. In this context, many studies arrive at the conclusion that the masculine 'nerd' culture remains stable in that field.

In contrast, my doctoral project that investigates the situation of Chinese and Indian female doctoral researchers in computer science at German universities emanates from a concept of culture that transcends national borders. This widened focus on culture gives a new perspective on the process of doing gender in computer science and reveals ways of how the masculine nerd character of computer science can be questioned. Different enabling but also restrictive socialisation factors that shape the individual experiences are taken into account, such as different images of computer science that foster women in that field: whereas in Germany the nerd image is prevalent, e.g. in India, computer science mainly means good job opportunities - regardless of gender. However, for those women, doing a doctor in computer science in Germany is not common. They are confronted with different expectations both in relation to their Chinese or Indian lifeworld and to the German work setting in computer science.

A widened conceptualisation of culture challenges the traditional methodology and new procedures have to be created. For example, in my qualitative interviews, assumed familiar patterns of women's experiences in computer science are put aside, however, they are used in a comparative form.

Questions of Power in STS Fieldwork in the Context of Turkey

Author(s)

Dr Pinar Kaygan, pkaygan@metu.edu.tr (Assistant Professor, Middle East Technical University, Unregistered)

Dr Harun Kaygan, hkaygan@metu.edu.tr (Asst. Prof. Dr., Middle East Technical University, Unregistered)

Short Abstract

Based on short interviews with graduate students of STS in Turkey, the paper investigates the power relations that emerge in fieldwork, considering the cultural, institutional and disciplinary influences over the recently growing STS field in Turkey.

Long Abstract

STS is an emergent field in Turkey with recent efforts that aim to network, promote and delineate the field. A rising number of students from various disciplinary backgrounds, who are interested in the social impact of science and technology in Turkey, conduct research under a range of graduate programs from medicine to design. Since the beginning of 2018, the authors have been conducting short interviews with graduate students who work within the scope of STS regarding the salient issues they encounter in their fieldwork, in order to produce a series of podcasts in Turkish to support the growing graduate student base. Shaped by the topical interests and methodological preferences of various fields that house graduate research on STS, dominant modes and methods of STS research are just emerging in Turkey. Still, in students' experiences, issues of power come to the fore as a shared concern. On one hand are experts such as doctors and technologists, whose scientific and technological expertise becomes a barrier for the researcher. On the other are users such as patients, with whom the researcher finds herself in a power asymmetry, as the user confides and conceals. With its focus on how scientific and technological practices shape -- and are shaped by -- the social, STS is uniquely occupied with questions of power. We demonstrate how these questions in STS fieldwork are also closely related to cultural, disciplinary and institutional contexts within which the research takes place, along with the strategies developed by the researchers themselves.

The Alleluia syncretic revitalization movement

Author(s)

Dr Daniel Cooper, cooperwave@gmail.com (Researcher, University of Oxford, Registered)

Short Abstract

This paper analyzes the Alleluia movement and compares it with Anthony F.C. Wallace's concept of a revitalization movement derived from his work with the Iroquois in North America and their Old Way of Handsome Lake movement (1972).

Long Abstract

Before Europeans arrived in the New World, local indigenous populations maintained complex spiritual beliefs and practices intimately connected with surrounding landscapes. The arrival of new diseases, technologies, and belief systems brought about radical changes for indigenous communities; they also triggered diverse forms of resistance, refuge, syncretism, and revitalization.

The Alleluia Indians in the Guiana Highlands of South America are one example of a culture that creatively adapted to exogenous forces of change. After years of missionary presence throughout the region, especially from the English Anglican Church starting in the 1800s, many syncretic and prophet movements emerged. Many have since disappeared, but Alleluia remains. They consider themselves to be Christian, though others take issue with this claim since Alleluia synthesizes traditional shamanic/animist beliefs and practices with introduced Christian ontologies.

This paper draws from primary ethnographic data in the form of oral histories gathered during doctoral fieldwork in the Upper Mazaruni River basin in March and April 2013. These narratives are systematically analyzed and compared with Anthony F.C. Wallace's concept of a revitalization movement (RM) derived from his work with the Iroquois in North America and the Old Way of Handsome Lake movement (1972). Ultimately, Alleluia is classified as a highland shamanic revitalization movement because of the unique role that shamanism and geography play in its history and the fact that it includes the following key components of a RM: 1) prophet leaders; 2) a syncretic code adapted to material and conceptual intrusion to reduce stress; and 3) institutionalization.

Banking on blood: the science, market and traditional methods of umbilical cord blood storage in South India

Author(s)

Ms Amishi Panwar, amishi.panwar@graduateinstitute.ch (, The Graduate Institute, Geneva, Registered)

Short Abstract

This paper details umbilical cord blood banking in Chennai, South India & examines the science & marketing of public and private cord blood banks with a focus on traditional methods of cord blood storage, thereby asking what happens when global science & technology collide with local cultures ?

Long Abstract

In India, umbilical cord blood stem cells are used to treat Thalassemia, Leukemias and related blood disorders, whereas stem cell treatment for all other disorders is classified under research and requires registration of a clinical trial with the governing body in India. Given this scenario, the promissory nature of these cells, vigorous marketing strategies and traditional methods of cord blood storage has led to multiple interpretations of the science and use of (banked) blood stem cells.

This paper draws on 15 months of ethnographic immersion and conversations with haematologists, gynaecologists, lab technicians and people opting for banking in Chennai, South India. Public banking, characterized by anonymous donation and stem cell transplantation, is a curious but preferred form of insurance given the knowledge that there is a 0.04% chance of using one's own cord blood in the future. A hybrid of the public-private model called "community banking" is where a group of people becomes a private pool of users, who pay for, and bank their children's cord blood. And pregnant mothers are encouraged to store dried cord tissue/blood in silver amulets, which is believed to protect the child from harm and disease. The ever morphing nature of the cord blood market in response to the developing science and commerce of stem cells leads us to ask what exactly does banking on cord blood entail? And how do we understand a future where global science & technology collide with local cultures?

Anticolonial science and technology: seizing the means of liberation?

Author(s)

Ms Sophie Toupin, sophie.toupin@mail.mcgill.ca (PhD candidate, McGill University, Registered)

Short Abstract

In this presentation I ask two interrelated questions: what does it mean to do anticolonial science and technology? And, how does Frantz Fanon's work inform our thinking about doing anticolonial STS?

Long Abstract

My paper is situated at the crossroads of two stereotypes: the image of Africa as defined by a lack of technological innovation; and of science and technology as being transferred from the West. As with all stereotypes, neither of these accurately represents the complexity of the phenomena to which it has been applied. By reconsidering the history of anticolonial movements and thoughts during liberation struggles in Africa, this paper gestures toward a recasting of colonial Africa as a geography of technological struggle, not absence. To contribute to such thinking, I focus on Fanon's writings and practices which expresses the rich entanglement between science and technologies, and liberation movements. I posit that his work has informed a way of thinking, but also and mostly of doing anticolonial STS. As of now, most of Fanon's work and scholarship on his work has focused on issues of violence, racism and his influence on African American culture. His scholarship on science and technology and the ways in which it is entangled with violence and racism have been given less attention. This paper will ask two questions: what does it mean to do anticolonial science and technology? And, how does Frantz Fanon's work inform our thinking about doing anticolonial STS? With this paper, I hope to start a process of developing an account of anticolonial STS that might point to possibilities for progressive social, political and technical responses to the uneven and unequal conditions that continue to challenge decolonizing processes in Africa.

Uses of ANT in design research: towards a critical dialogue

Author(s)

Dr Ali O. Ilhan, ali.ilhan@ozyegin.edu.tr (Assistant Professor/Co-Director of Graduate Studies, Ozyegin University, Registered)

Dr Harun Kaygan, hkaygan@metu.edu.tr (Asst. Prof. Dr., Middle East Technical University, Unregistered)

Dr Sebnem Timur Ogut, timurseb@itu.edu.tr (Associate Professor, Istanbul Technical University, Unregistered)

Short Abstract

The paper reviews the uses of actor network theory and related terminologies in design literature in the last decade from a critical perspective, and underlines the opportunities and pitfalls towards establishing a dialogue between the two fields of STS and design.

Long Abstract

Actor Network Theory (ANT) has been increasingly utilized in recent design literature, albeit often with a celebratory rather than critical tone. ANT indeed provides a powerful toolbox to untangle complex technoscientific assemblages, yet—like any other large framework—it is not without its shortcomings. We argue that ANT's full potential in design research can only be realized through a critical lens.

To this end, we review four distinct uses of ANT terminologies in design research. These are (a) theoretical introductions for design researchers, (b) ANT analyses of design products, which typically foreground the concept of nonhuman agency, (c) ANT analyses of design processes, which often return to Callon and Law's early work, and (d) the uses of ANT concepts, and especially Latour's writings, to theoretically ground co-design practices. For each of these headings, we identify key opportunities and potential pitfalls by turning to the original theory and its well-established critiques such as the problematic status of the notion of non-human agency, problem of managerialism and disregard for existing social structures.

We argue that such a critical dialogue with design research can be beneficial also for the STS field at large. Despite its increased relevance today with regard to material, organizational and social change, the agency of design is still largely missing from STS accounts. We demonstrate that current engagements with ANT in design literature provides questions and arguments that complements the STS interest in the mutual shaping of the social and the technological.

Can the Global South have a history of electricity?

Author(s)

Dr Anto Mohsin, anto.mohsin@northwestern.edu (Assistant Professor in Residence, Northwestern University in Qatar, Unregistered)

Short Abstract

This paper proposes to discuss a trend of producing studies of electricity and society in the Global South by anthropologists while studies of the same topic in the Global North is usually done by historians. It aims to reflect on this tendency and addresses the question posed in the title.

Long Abstract

One challenge for STS scholars who work on/in the Global South is to examine technologies historically. The Global South is generally deemed to be places where there are few innovations and therefore provides little topics for history of technology. Although David Edgerton in his book *The Shock of the Old* (2006) has suggested a new methodological path to examine technology-in-use, there is still imbalance in the scholarship produced. Not all technologies-in-use in the Global South seem to be a subject of interest for scholars to historicize. Take electricity for example. As an STS scholar who has been studying, researching, and teaching this topic, I have come to realize that scholarly works on electricity tend to be largely divided into two areas: history of electricity in the Global North and anthropology of electricity in the Global South. This tendency suggests that in the Global North histories of electricity are warranted because electricity was introduced long ago and many innovations took place there. Whereas in the Global South an anthropological study of electricity is more appropriate in that setting because the area is a late adopter of electricity. Using several scholarly works produced on the topic, I will show that (with a few exceptions) the stories of electricity in Global South tend to be produced by anthropologists while the studies of electricity in the Global North tend to be told by historians. In this paper, I will try to reflect on this trend and seek to chart a path for the future.

Doing ethnography at home: a reflection from post-disaster Fukushima

Author(s)

Dr Kaoru Miyazawa, kaorumiyazawa@gmail.com (Associate Professor, Gettysburg College, Registered)

Short Abstract

This essay delineates how my feelings about the nuclear power plant, radiation, and Fukushima people shifted during my fieldwork in Fukushima (my hometown), which experienced nuclear power plant explosion in 2011.

Long Abstract

Since the explosion of Fukushima Daiichi Power Plant in 2011, messages highlighting the danger of nuclear, and pathologization of Fukushima people as lacking scientific knowledge about nuclear have been dominant. Having raised in Fukushima, I questioned such a narrow representation of Fukushima people and returned to Fukushima in 2013 to conduct an ethnographic study about school teachers' perception of nuclear power, and how it impacted their teaching. This reflexive essay delineates how my feelings about the nuclear power plant, radiation, and Fukushima people shifted during my total of seven

month-stay in Fukushima. Using Sara Ahmed's (2014) notion of emotion, I view emotion as a productive force that circulates between real and imaginary objects and bodies; emotions move us toward or away from certain objects or bodies and stick or separate them. I was susceptible to this productive power of emotion during my study. Prior to my visit to Fukushima, fear about radiation and nuclear was only emotion I had. However, learning about the feeling of "disgust" projected to evacuees from Fukushima developed empathy for Fukushima people and anger toward those who only communicated negative sides of nuclear. Additionally, hearing nostalgic memories of the nuclear power plant from the community members, and visiting Fukushima Daini Power Plant generated an exciting feeling about the power plant. Through this explanation, I demonstrate how and why we create risky objects like nuclear power plants and sustain attachment to them even after experiencing a catastrophe, without pathologizing people in Fukushima, who may romanticize nuclear.

When engineering practices encountered the unacceptable, unpredictable, unthinkable: how STS can shed light on engineering education reform in Taiwan

Author(s)

Prof Wen-Ling Hong, wenlinghong@gmail.com (Associate Professor , National Kaohsiung University of Science and Technology, Registered)

Prof Jr-Ping Wang, jpw@nkust.edu.tw (Associate Professor , National Kaohsiung University of Science and Technology , Unregistered)

Short Abstract

The 2014 Propylene explosion revealed conventional practices of several engineering disciplines entangled thus created grave uncertainties for catastrophe. STS studies point out robust technical communication and information sharing is crucial, and engineering education reform can tackle this issue.

Long Abstract

Near midnight of a hot summer day in 2014, sections of densely populated central Kaohsiung exploded. 32 were killed and 321 were wounded. Investigation found propylene had leaked to rainwater culvert boxes while being pumped to a petrochemical plant via an underground pipeline. Inspired by STS, we, originally trained in engineering, exam how different engineering practices collided in Taiwan's economic growth driven societal, social context. First, the culvert box construction team wrongfully exposed a section of the buried pipeline and left it unreported. The pipeline has been eroded for more than 20 years and was not discovered by the conventional non-directive pipeline survey performed later. The complex city environment surrounding the pipeline also posted great uncertainty in the interpretation of the data. Nevertheless, the operators on duty for the propylene transportation was not alert of the possibility of a leaky pipeline while they saw abnormal readings on the gages. In addition, there were also void and ambiguity in the law governing the ownership, the maintenance responsibilities of the pipelines and the documentation of construction paperwork. Citizens also demanded the right to know the locations and chemicals concerning the petrochemical pipelines in their daily living space after the disaster. These entanglements and missing links of engineering practices suggested robust technical communication and information sharing must be put into place. There is a rising interest in engineering education reform in Taiwan. STS study of such disaster stresses the importance of technological governance and provides new approaches to the old problems.