



## **Publics across boundaries**

*17.30-19.30, Wednesday 7th June, room Polivalente*

### **Scientific Advice for Policy Making in Portugal**

*Mara Almeida, ITQB Nova/IN+ Center for Innovation, Technology and Policy Research, [mara.almeida@itqb.unl.pt](mailto:mara.almeida@itqb.unl.pt)*

Countries have increasingly to deal with complex issues, which can range from economic growth to sustainable production, antibiotic-resistant 'superbugs', or big data. Science and technology (S&T) has a crucial role in addressing many of the societal challenges we are now facing. In general, policies have the greatest chance to benefit the broader society when grounded in the best available knowledge and understanding of key scientific, technological and other facets underpinning them. In other words, an evidence-based policy-making approach could contribute to a more informed decision-making, likely to result in better decisions. The main question addressed in the study has been to consider the scientific advisory structures in Portugal and how they support policy-making on issues of S&T. It will be relevant to consider their contributions at the interface of science and policy. The initially step has been to map existent structures like academies, professional societies and research organisations and analyse their role, in particular how these structures interact with relevant stakeholders and society in general. Data collected under the FP7 European project PACITA (Parliaments and Civil Society on Technology Assessment) together with a preliminary analysis of additional, more in-depth data will be presented.

### **Boundary Knowledge across science and politics.**

*Amparo Gómez Rodríguez, Universidad de la Laguna, [agomez@ull.es](mailto:agomez@ull.es)*

*Boundary between science and politics* is a fundamental notion to account for the relationships between these two spheres in the western countries. This notion has been postulated in the framework of the model of the *Social Contract for Science* and has been approached by scholars coming from science, politics, sociology and philosophy. The boundaries between science and politics have become increasingly sophisticated in the last half-century. These boundaries are conceptualized as complex, elusive and re-made spaces. A number of different entities are located on boundaries, mainly organisations, institutions, groups and intermediaries. In this communication it will be addressed a type of entity which has been scarcely considered in the analyses of boundaries: *boundary knowledge*. The hypothesis is that certain scientific knowledge shows a series of characteristics that turn them into *boundary objects* opened to political intervention. The aim of this communication is to clarify what exactly is meant by *boundary knowledge* in

science, what characterizes this knowledge, and which its status is. This will be done mainly through the notion of *boundary* object (Leig-Star and Griesemer (1989), Carlsson et al. (1996)). The characteristics of *boundary knowledge* will be analysed under other conceptual denominations coming from sociology of science: trans-science, (Weinberg (1985), hybrid management (Miller (2001) -with some reference to Latour's hybrids-, and post-normal science (Funtowicz and Ravetz (1993), -especially as Petersen et al (2011) applies it.

### **Reading Critical Theories in Participatory Design as Ontological Politics.**

*Mariacristina Sciannamblo and Maurizio Teli, Madeira Interactive Technologies Institute, [cristina.sciannamblo@m-iti.org](mailto:cristina.sciannamblo@m-iti.org), [maurizio.teli@m-iti.org](mailto:maurizio.teli@m-iti.org)*

Since their inception, Science and Technology Studies (STS) have taught us that boundaries are constructed through multiple processes of translation. That applies to STS themselves as a hybrid field of study, which is in ongoing conversation with older and younger research areas in social sciences and technology design. In this contribution, we acknowledge the hybrid nature of STS to interrogate their conceptual and theoretical boundaries and links with the field of Participatory Design (PD). In doing so, we underline the performative character of theoretical practices to go beyond the assumption that social inquiry and its methods are merely descriptive. A similar understanding of theories evokes the ethical and political agendas of research projects, a concern that Annemarie Mol has phrased as 'ontological politics' insofar as it calls into question the interventionist character of social theories and methods. We take up these assumptions in relation to PIE News, an EU-funded project conceived as a design intervention at the intersection of critical social theories and recent developments in PD. The project aims at designing a digital platform, [commonfare.net](http://commonfare.net), *with* and *for* people who are at risk of poverty or social exclusion, and involves academic and non-academic organizations working in five European countries with different backgrounds and expertise. This case study allows us to explore the role of critical theories in articulating STS as an engaged program in practice. In conclusion, we discuss the potentially fruitful relation between STS, critical theory, and technology design as a way to understand and intervene in the world.

### **Translating participation**

*Ana Delicado, Instituto de Ciências Sociais, Universidade de Lisboa, [ana.delicado@ics.ulisboa.pt](mailto:ana.delicado@ics.ulisboa.pt)*

The drive for engaging the public in debates about science and technology has been hailed as a much necessary solution for the problem of breaching the divide between science and society, democratising the management of new technologies and associated risks and including different voices in decision-

making. However, this participatory turn emerged in countries with high literacy levels, strong civil society and robust scientific systems. The global dynamics of science, paired with the growth of transnational funding for research and other connected activities, has come to enshrine participation as a quasi-mandatory step (see, for instance, the RRI Responsible Research and Innovation seal of approval in European projects), pushing its practices beyond its initial borders and requiring different kinds of translations. As any social scientist believes, context matters. So the who and how of participation in science is bound to require adjustments and negotiations within the more or less flexible standardization frameworks of transnational research and innovation projects. This paper aims to discuss the challenges and constraints of translating participation in science into different contexts, in particular to semi-peripheral European scientific systems. It is based on the analysis of several international research and innovation projects and interviews with their researchers.

### **Water Borders in the Land of Participation**

*Sofia Bento & Oriana Brás, Universidade de Lisboa/SOCIUS- Research Centre in Economic and Organizational Sociology /CSG- Consortium of Social Sciences and Management, ISEG-School of Economics and Management, [sbento@iseg.ulisboa.pt](mailto:sbento@iseg.ulisboa.pt), [orianarb@socius.iseg.ulisboa.pt](mailto:orianarb@socius.iseg.ulisboa.pt)*

Participatory processes also give rise to reflections on borders. Participation is a process that actively involves not only managers and government officials but also interested parties (International Association for Participation, 2016). If the definition of participation is quite simple to grasp, the practical issues remain problematic and highly political. Borders may be technical, epistemic, linguistic and social. One of the main questions related to borders is the definition of the public: who is included in participative processes? Who has a stake? The question is as old as the first reflections on democracy and the distribution of power within societies. Several STS's authors have reflected on this topic but the scientific community needs also to question itself. From which perspective do we look at the participation processes? What are our borders? Anglo-saxon and critical approach? And what are the borders of the organizers of these events? The case we look at refers to the discussion of a specific step of the Portuguese regional hydrographic plans, a report called Significant Issues for Water Management. In 2015, the Portuguese Environment Agency implemented the public consultation on this technical report in each hydrographic region. Through observation of the sessions, we counted the share of attendance and of interventions and the positions of the participants. Ethnographic observation at the 8 sessions shows few interventions from participants on topics not included in the report. This kind of intervention was very interesting for analysing the borders of the discussion. Normally, the debate is framed by the contents of the report, in a closure process that Jasanoff (2003) identified as a limitation of participation. In the same way, the

interventions in the process we studied show how even in highly formatted state experiments (Ehrenstein and Brice, 2016) the participants react and verbalize concerns and arguments that are not expected by the organizers. What should be subject to discussion and collective decision-making? Where do those issues begin and end? These are usual questions that come up in participation events, complexified by disputes about the borders between the political and the technical, the social and the natural, the causes and the right actions... Certain arguments may conflict and reveal views of the world that fall into contradiction with the underlying logic in the proposed discussion. What are these borders made of? And how can we rethink the borders between worlds of knowledge? How can STS help imagining new borders and fostering constructive solutions?

## **Technologies across boundaries**

*17.30-19.30, Wednesday 7th June, room 1*

### **Appropriating mobile phones for livestock production and marketing: the case of the Maasai and Wasukuma pastoralists in Tanzania**

*Luis Soares, The University of Edinburgh*

This paper will explore two contrasting attempts to translate (Western) Information and Communication Technologies to tackle the challenges faced by Tanzanian pastoral livestock management: LINKS - an ICT-based tool (developed in the 90s) that seeks to give farmers timely access to market information. This however is not embraced by farming communities. In contrast the mobile phone has been enthusiastically embraced. Opportunities for communication with nomadic Maasai herdsman enable them to manage better their search for pasture, water and the decision to bring cattle to market. We highlight the ease of appropriation of the generic mobile technology across cultural boundaries - and note that in this case the technology is introduced in a rather conservative manner which does not disrupt existing roles and authority relations. We also note that more settled Wasuma agropastoral communities have found opportunities to exploit the same mobile technology in more intricate ways - for example to arrange lorry transport and sale of cattle. We introduce the idea of a spectrum of appropriation to explain the interactive process of social learn where there are more chances for visions and the translation of languages to occur. The spectrum helps to identify different forms of technology adoption according with the context, where users process meaningful interpretation and negotiate technology meaning and practice, which facilitate the appropriation process.

### **When Care Matters. Technological Mediation in 2013 Gezi Movement**

*Öznur Karakaş, UOC (Universitat Oberta de Catalunya)*

The literature on the 'Occupy' movements characterized by the occupation of and encampment in public squares is laden with accounts on the role of social media in the emergence of such mobilizations. Nevertheless, be it the logic of collective action (Bennett & Segerberg), aggregation (Juris) or networks of hope and rage (Castells), most of these accounts prove to be hyperbolic and sometimes over-generalizing regarding the significance of the use of social media in this new wave of social contention which otherwise makes use of a highly embodied action repertoire. Inspired by the critical stance taken by feminist interventions in STS towards all types of 'disembodied' accounts on technological mediation, my presentation takes a critical distance away from accounts that overtly or implicitly see in occupy movements the materialization of otherwise virtual networks, thusly making invisible what characterizes the

most such mobilizations: embodied and highly caring collective attempts to experiment on otherwise impossible encounters in the making-of alternative urban spaces. I thusly analyze the use of social media in Gezi based on observations in the field and a critical discourse analyses of 21 in-depth interviews with activists from different backgrounds with respect to the prevalence of care in the movement as an ethical and political stance, avoiding to be caught in either a technological euphoria on the potential of digital media to recruit virtual communities 'then to be' materialized in the squares or an unjust praise of willful 'human' action characterized by 'it's just a tool,' approach.

### **What's in a Name? The material semiotic enactments of Anonymous**

*Pedro Jacobetty, Universitat Oberta de Catalunya,*  
[pedro.jacobetty@gmail.com](mailto:pedro.jacobetty@gmail.com)

Resulting from the awareness that digital artifacts and traces serve surveillance and identification – like personal documents and organizational records – the enactment of Anonymous relies on obfuscation and effacement of “offline” connections for the disruption of digital networks and meaning production processes. This poses a challenge to analyses that privilege the co-production of objects and knowledge. Speaking of “failed”/“successful” translations refers to how intentional strategies work (or not) but obscure how those same processes can be purposively oriented towards disarranging the very possibility of successful translations. The production of objects and events that point to the Anonymous “entity” acts as material camouflage, allowing the accumulation and free appropriation of symbolic power: they form a generative presence/absence. My research follows those boundary objects that bridge and separate the invisible world of collective internet anonymity – where public manifestation does not compromise privacy – and the world of institutions and organizations – that of names and faces. My focus is not limited to the production of digital artifacts, integrating objects of knowledge, cultural objects, techniques, iconography, *genres*, and even the word “anonymous”. What gets “lost” or effaced in translation is the possibility of enclosure and of assessing contexts of practices and intentions; thus of negotiation or the introduction of obligatory passage points. The result is the material and semiotic enactment of a “zone” of contingency and chaos, simultaneously producing patches of stability that integrate constant process of their own transformation and subversion.

### **Translation, Hybridisation, Appropriation of US hacker culture in Europe**

*Maxigas, Central European University, Centre for Media, Data and Society,*  
*School of Public Policy, Budapest, Hungary,* [maxigas@anargeek.net](mailto:maxigas@anargeek.net)

European hacking history is underrepresented in the literature compared to the premier scholarship that connected the development of cyberculture to historically and geographically specific socio-cultural milieus in the United States such as the Californian psychedelic counterculture or the interdisciplinary research in Boston. The resulting bias influenced interpretations of computational cultures elsewhere, particularly the hypothesis of hackers' liberal and libertarian political orientation. As a corrective, this presentation charts the appropriation of US hacker culture in European scenes from the 1990s through three strategically selected cases from fieldwork conducted since 2012. One focuses on the hybridisation between local squatter movements and hacker culture in Italy and Spain around the turn of the millennia. The second study develops these notions to show the articulation of distinct Northern and Southern European Circuits of Hacking through infrastructures of regular meetings and shared machine shops during the next decades. The third demonstrates the explanatory power of the Circuits concept on the lost translation between open source software developers and anarchist squatter hackers in France around the same time period. Even though hacker culture is strongly articulated in transnational online spaces, local interpretations are hashed out in geographically circumscribed meetings and contexts. Interestingly, shared interpretations may be stressed, assumed and practiced online, whereas in meetings away from the keyboard mutual understanding and the feeling of solidarity breaks down more easily. Eventually, appropriations of hacker culture are highly dependent on local socio-cultural conditions.

## **Living matters across boundaries 1/3**

*09.30-11.00, Thursday 8th June, room 3*

### **Construindo bio-objetos humanos: dinâmicas sociais entre a saúde e a ciência**

*Brígida Riso, CIES-IUL/ISCTE-IUL, [brigida.riso@gmail.com](mailto:brigida.riso@gmail.com)*

A recolha de uma amostra biológica em contextos de saúde é um ato relativamente vulgar. No entanto, a crescente procura de amostras biológicas humanas para pesquisa clínica tem promovido o armazenamento sistemático destas amostras em repositórios designados de biobancos. No processo da recolha até à utilização da amostra pelos investigadores, esta ganha estatuto próprio, com identidade e autonomia, e torna-se independente do indivíduo que lhe deu origem, ainda que possua o seu património genético. A submissão das amostras a testes de qualidade, que a permitem codificar, remete para a eliminação das impurezas e para a redução dos riscos associados à sua utilização. A diversidade de cenários percorridos pelos produtos biológicos, a multiplicidade das suas utilizações, em contextos diferentes daquele em que foram recolhidas, criam uma entidade diferente, que rompe com os limites convencionais e com as identidades rígidas das formas biológicas. Neste percurso, as amostras vão-se constituindo objetos, que rompendo as fronteiras e a ordem biológica estabelecida, de doentes e impuros se transformam em objetos de ciência e saúde, no sentido de contribuírem para a descoberta de novas terapêuticas. Assumindo que este fenómeno não acontece num território único exclusivo e de fronteiras delimitadas, toma-se o local onde são armazenados as amostras, o biobanco, como ponto de partida para esta pesquisa etnográfica. A pesquisa ainda em curso parece sugerir que a constituição de bio-objetos, neste campo, é um processo mediado e mediador de relações sociais ancoradas em dois contextos aparentemente distintos: de saúde e ciência.

### **Forensic DNA Phenotyping: controversies, translations and boundaries**

*Filipa Queirós & Helena Machado, Centre for Social Studies, University of Coimbra; [filipaqueiros@ces.uc.pt](mailto:filipaqueiros@ces.uc.pt), [helenamachado@ces.uc.pt](mailto:helenamachado@ces.uc.pt)*

Over the last decades, forensic genetics have been developing various technologies for criminal intelligence. One of the latest technological innovations is Forensic DNA Phenotyping (FDP) that aims, from biological materials collected at crime scenes, to infer the physical features of criminal suspects. This technology is surrounded by controversies of scientific, technical, ethical and legal nature. This paper approaches FDP as a boundary object in order to understand such controversies by exploring the continuous (re)making of translations and boundaries. In particular, we aim to understand

how controversies around FDP assemble the making of identities, practices and knowledge in three different sites: the scientific discipline of forensic genetics, the social sciences, and the private companies that provide FDP analysis. Empirical materials are drawn from advertisements of FDP by private companies and scientific articles about FDP in the fields of forensic genetics and in the social 2 sciences. What are the shared and the different meanings attributed to FDP across different academic disciplines? How is FDP plastic and robust enough to adjust to local practices while at the same time maintaining a common identity when circulating across diverse contexts? Finally, a major controversy of FDP lies in the potential of stigmatisation and criminalisation of ethnic minorities. How is this ethical and social challenge addressed in different social worlds? In other words: How are controversies managed in order to extend the expertise of both forensic genetics and social sciences? How do controversies around FDP also serve to protect the demarcation of science from private companies?

### **(In)visibilidades da investigação criminal em Portugal**

*Susana Costa, CES, Coimbra, [susanacosta@ces.uc.pt](mailto:susanacosta@ces.uc.pt)*

A polícia é o primeiro elemento de uma cadeia de custódia composta por várias culturas epistémicas que culmina no tribunal. Com recurso a autos de notícia, autos de inspeção, relatórios fotográficos, recolha de vestígios, etc, é possível documentar com objetividade o “diálogo silencioso” entre a cena do crime e o elemento policial. Os documentos que produzem constituem-se assim como objetos de fronteira que comunicam entre diferentes arenas e diferentes áreas disciplinares com o intuito de obter uma prova mais robusta e credível em tribunal. Com base nas regras formais a polícia dá visibilidade à narrativa e confere legitimidade e credibilidade à sua atuação. Porém, tratando-se de objetos impuros, esta atividade é suscetível a práticas improvisadas e ao acionamento de conhecimento tácito. A decisão de dar a “ver” certos aspetos da narrativa, deixando outros na penumbra pode refletir-se na cadeia de custódia da prova e na produção de uma sentença judicial. Inserida na investigação de pós-doutoramento “Trajetórias dos vestígios na cena do crime” (SFRH/BPD/63806/2009) e com base na análise de 20 processos judiciais de diferentes tipologias criminais (1998 e 2012), nesta comunicação serão analisadas as visibilidades e invisibilidades na produção da prova forense. Argumento que na investigação criminal em Portugal a produção de uma narrativa com valor jurídico em tribunal pode ser condicionada pela coexistência de subculturas epistémicas do trabalho policial (diferentes polícias na cena do crime), com diferentes conhecimentos, práticas, entendimentos e modos de “ver” a prova forense. O grau de entusiasmo tecnológico que pauta a atuação das diferentes polícias na cena de crime pode refletir-se na robustez e na eficácia da prova que chega a tribunal.

## **Medical and criminal fields: genetic data as a boundary object**

*Sara Matos & Helena Machado, Centre for Social Studies (University of Coimbra, Portugal), [saramatos@ces.uc.pt](mailto:saramatos@ces.uc.pt), [helenamachado@ces.uc.pt](mailto:helenamachado@ces.uc.pt)*

In recent years, medical biobanks, repositories of human biological material for medical treatment/research, and criminal databases, containing genetic data for law enforcement purposes, have expanded enormously. Traditionally, medical biobanks and criminal databases are conceived as separate entities whose boundaries are clearly demarcated. However, in exceptional circumstances medical biobanks are accessed for criminal intelligence aims. This paper focuses on genetic data as a boundary object when circulating between the medical and the criminal fields. From a set of interviews with forensic experts working with criminal databases and the analysis of two criminal cases involving the use of data collected in a medical context, we address the (re)making and the blurring of boundaries between the medical and criminal field. The access to medical biobanks by police institutions to solve criminal cases raises acute ethical and social challenges. The approach to genetic data as a boundary object will be carried out by following the controversies displayed by the intersections between medical and criminal fields. The blurring of boundaries between the medical and the criminal fields allows the understanding of three interrelated dimensions: First, the plasticity of genetic data and how it acquires different meanings in different fields of practice and knowledge. Second, how genetic data maintains a common identity in different social worlds. Third, how the fluidity of boundaries between the medical and the criminal field reinforces social inequalities and threatens civil rights, in particular the right to genetic privacy.

## **Political economy of science 1/2**

*09.30-11.00, Thursday 8th June, room 1*

### **Make Way for the Robots. Roles for autonomy in building a European Public-Private Partnership**

*Kjetil Rommetveit (University of Bergen), Niels van Dijk (Vrije Universiteit Brussels), Krístrún Gunnarsdóttir (University of Surrey)*

In this talk we will describe the project to make 'autonomous' robots in order to address Europe's societal problems. It departs from an extended notion of human-machine configurations to explore the efforts at working and building across ontological boundaries between humans and machines. We describe how this boundary-crossing work is paralleled on the institutional level, where different disciplines, the private techno-scientific innovation sector and public political institutions are expected to come together and integrate. We describes how various techno-epistemic networks within industry, science and law appropriate and creatively enact the imaginary of autonomous robots. Through these networks, the imaginary becomes anchored within these institutional domains, thus providing legitimacy, whereas at the same time strategically orienting them towards new goals. Roadmaps are the main metaphor and organising tool for such mutual organisation by aligning these heterogenous actors through a common machine-centric focus. Furthermore, we describe what happens as the industry-dominated project to make robot autonomy docks with the public institutions of the European Union in a public-private partnership. The paper focuses on a recent legislative initiative for robotics of the European Parliament. Emphasising the co-productions of robotics with politics we observe an increased speculative emphasis on ethics and on possible futures. We suggest that the increasing tight confluences between regulation, networks of innovation, scientific research and ELSA studies are in need of new kinds of epistemic checks and balances.

### **Políticas públicas y políticas evidenciarias: un análisis de la controversia en torno a la regulación de los alimentos funcionales**

*Jose Luis Luján & Oliver Todt, Universitat de les Illes Balears, [jl.lujan@uib.es](mailto:jl.lujan@uib.es)*

Una parte importante de las controversias en la ciencia reguladora están relacionadas con el establecimiento de los estándares de prueba, esto es, con el nivel de evidencia que se considera necesario para seleccionar una hipótesis. Los estándares de prueba establecen una jerarquía entre los diferentes tipos de evidencia que pueden utilizarse para informar la toma de decisiones, por ejemplo, para considerar que un alimento es un alimento funcional. El establecimiento de los estándares de prueba no sólo influye de manera decisiva en la elaboración de regulaciones, sino también en el

desarrollo de la propia investigación científica, tanto en la elección de metodologías como en el establecimiento y consolidación de líneas de investigación. Consecuentemente, en las controversias en torno a los estándares de prueba en la ciencia reguladora aparecen tanto consideraciones de tipo metodológico como otras relativas a las consecuencias sociales de la regulación. El establecimiento y aplicación de la regulación europea de las declaraciones de salud ha generado controversia en la comunidad científica en torno a ambas consideraciones. En relación con la metodología hay un debate relativo la exigencia de datos causales y la adecuación del uso de los RCTs en la regulación de los alimentos, en comparación con otras metodologías (por ejemplo, estudios epidemiológicos). El otro debate concierne a los objetivos sociales últimos de este marco regulador: proteger a los consumidores de la información errónea o proporcionar la mayor cantidad de información posible sobre las propiedades saludables de ciertos alimentos. Nuestro análisis concluye con una propuesta que relaciona ambos debates: 1) respecto de los objetivos de la regulación es necesario tener en cuenta los efectos poblacionales; y 2) consecuentemente, las elecciones metodológicas se han de llevar a cabo teniendo en cuenta dichos efectos poblacionales.

### **The retreat of reasoning: regulating knowledge during the Obama administration**

*Tiago Mata, Department of Science and Technology Studies, UCL, [t.mata@ucl.ac.uk](mailto:t.mata@ucl.ac.uk) (written jointly with Jack Wright, Department of History and Philosophy of Science, University of Cambridge)*

During his eight years in office, Barack Obama was faced with a hostile Congress obstructing his administration's legislative initiatives. The Obama administration resorted to the discretion afforded by the White House's bureaucracy to effect policy. It steered regulatory independent agencies and the executive departments by shaping the flow of funds and information in government. Our contention is that in fortifying the White House's bureaucracy the Obama Presidency endorsed a conception of civic engagement that removed reasoning from the encounter between government and governed. This strategy comprised of the management of information (collection, and disclosure) rooted on the promises of data science and of behavioral economics. This strategy atomized social actors and deemed their judgment faulty, it sought to extract information from records of their actions instead of soliciting expression of their beliefs, commitments and wants. Our essay shows how science becomes political. That process has two components, how science is politicized by inflating and modulating its claims to participate in the political decision-making, and how science serves political ends.

## Egg donation in Spain: a quasi market

Vincenzo Pavone

Recent debates on egg donation have highlighted a common trend towards commodification of body tissues and reproductive work across the globe. Whether organized around egg-sharing scheme, generous compensations schemes or through market based transactions, egg procurement seems to stand at the heart of a growing business within the IVF industry. For instance, a significant portion of all the IVF cycles performed in Spain, around 30-40 per cent, is now based on egg donation. The increasing postponement of maternity, the growing amount of women freezing their own eggs to delay pregnancy, the mounting flow of IVF tourists into the Mediterranean coast of Spain, the liberal and permissive legal framework and the availability of first-rate assisted reproduction technologies and expertise make Spain a unique place to study egg donation practices. Recent interviews with professionals involved in the management and delivery of egg donation cycles in various IVF clinics in Spain reveal that a generous economic compensation is key to the development and sustainment of this medical practice. While a number of other factors need to be factored into the equation, such as the existence of reliable expertise and technologies, a shared sense of trust towards the medical profession and a country-wise positive attitude towards organ and tissue donation, the generosity of the compensation acts as a necessary catalyser, which essentially facilitate the donors are abundantly available. As a typical case of *lost in translation*, the amount of compensation is often considered low to northern European observers. Yet, it represents a relevant option in the survival strategies of the specific social group targeted by clinics in search for donors, that is women between 18 and 30 years. The absence of altruistic donors in public hospitals, where no compensation is available, and the change in the socio-economic profile of the donors during the years of the crisis reinforces the conclusion that, in the Spanish reproductive bioeconomy, the compensation scheme, while not necessarily the only factor, remains the key element in a *quasi-market*, which enrolls the reproductive work of women in needs under the flag of a gift economy but deliver its products and services through a neoliberal commercial strategy targeting upper class, wealthy women.

## **Conversations about STS at the Interstice: Inhabiting and expanding disciplinary borderlands**

*11.30-13.00, Thursday 8th June, room 3*

### **Living in disciplinary borderlands: exploring the weedy side of STS**

*Sara Peres, University of Cambridge, UK, [saramiperes@gmail.com](mailto:saramiperes@gmail.com)*

Any weed is a boundary object: by definition, it is a plant “out of place”, rather than belonging to specific taxonomical group. Hence, someone's carefully tended garden plant can be, at a different place and time or perspective, another's problematic interloper. In this reflection, I suggest that there is value in exploring the 'weedy side' of STS. It is a way to explore this academic field in context, and in relation to other disciplines, places, and histories. This metaphor encourages us to think about the life and evolution of STS in different environments of contemporary academia that shape how we think of its uses, implications, contributions, and problems. Questions such as ‘is it successful?’, ‘Is it damaging?’, ‘is it adaptable?’ and ‘is it evolving?’ can then be understood in relation to complex environments within which our heterogeneous field ‘grows’. In turn, it can be a way of appreciating the heterogeneity of our field as a function of its ability to live in, and across, disciplinary (and other) borderlands.

### **Associações e grupos CTS pelo mundo afora. As aves que aqui gorgejam nem sempre gorjeiam como acola**

*Arthur Arruda Leal Ferreira & Pablo Santoro, Programa de História das Ciências, das Técnicas e Epistemologia/UFRJ – BRASIL, [arleal1965@gmail.com](mailto:arleal1965@gmail.com)*

Este trabalho é o esforço de juntar duas experiências: em primeiro lugar os desdobramentos da sessão *National STS networks meeting* proposta por Pablo Santoro Domingo e por mim na última conferência conjunta Easst & 4S, e em segundo lugar as participações nos encontros de três redes CTS (Esocite-BR, Red CTS-Chile e Rede esCTS). No primeiro caso, interessa apresentar um quadro geral do que pôde ser obtido na sessão por meio da discussão em grupos e por envio de informações a posteriori, considerando a presença ou não de uma associação nacional ou regional específica, seu modo de funcionamento, a presença de uma revista, e a de um ou mais programas de pós-graduação, além da relação com entidades transnacionais (como a Easst, 4S e Esocite LA). No caso da experiência de participação, são notórias as diferenças de formato (quanto à escolha referente à institucionalização), de vinculação exclusiva ou não ao meio acadêmico e de relação com as entidades supranacionais. A proposta do levantamento destas diversas formas de ser instituição não se refere apenas a uma externalidade

diante de uma definição unívoca do campo CTS, mas a formas muito singulares de performá-lo com políticas ontológicas e fronteiras específicas, que são capazes de se transformar ao longo do tempo, configurando distintas ontologias históricas sócio-técnicas.

### **La investigadora feminista como objeto fronterizo**

*Natalia Fernández Jimeno, Universidade de Oviedo, [fernandezjnatalia@uniovi.es](mailto:fernandezjnatalia@uniovi.es)*

La reflexividad feminista es una característica presente en la mayoría de los enfoques de género para el estudio de la ciencia y la tecnología. Lejos de caer en la autocontemplación y resultar paralizante, esta reflexividad aporta las claves para comprender cómo el análisis académico y el compromiso activista pueden beneficiarse mutuamente (González García, 2001). Además, es entendida también como un principio metodológico indispensable en la medida en que muestra, desde un punto de vista situado y comprometido (Haraway, 1998), la parcialidad de las visiones hegemónicas androcéntricas y del poder. Recogiendo estas ideas, pretendo realizar una reflexión sobre mi propia práctica investigadora en el equilibrio entre la academia y el movimiento feminista. Como si mi propio ser se tratase de un objeto fronterizo (Star y Griesemer, 1989; Star, 2010), transito entre ambos mundos sin pertenecer totalmente a ninguno de ellos. Mantengo mis principios pero, al mismo tiempo, puedo adecuarme a los distintos ambientes en los que me muevo (congresos, asambleas feministas, trabajo,...). Soy observada por diversas miradas y sirvo a distintos intereses. Mi identidad es tan múltiple como los mundos que habito. Mi subjetividad se transforma en una suerte de vaso comunicante entre ambas realidades pero, al mismo tiempo, ejerzo el compromiso con respecto a mis principios epistémicos y políticos. Utilizaré mi práctica como investigadora en el ámbito de las tecnologías reproductivas para reflexionar sobre mis propios métodos investigadores así como el compromiso epistémico, metodológico y político que atraviesa mi práctica, el cual es el fruto de mi pertenencia a ambos mundos, el académico y el del movimiento feminista.

### **Objects and boundaries. Social science, smart technology and engineering**

*Sara Degli Esposti<sup>1</sup> - [sara.degliestposti@gmail.com](mailto:sara.degliestposti@gmail.com), Daniel López Gómez<sup>1</sup> - [dlopezgo@uoc.edu](mailto:dlopezgo@uoc.edu), Miquel Domènech<sup>2</sup> - [miquel.domenech@uab.cat](mailto:miquel.domenech@uab.cat), Ramon Ribera Fumaz<sup>1</sup> - [rriberaf@uoc.edu](mailto:rriberaf@uoc.edu), Israel Rodríguez Giralt<sup>1</sup> - [irodriguezgir@uoc.edu](mailto:irodriguezgir@uoc.edu)*

<sup>1</sup>*Internet Interdisciplinary Institute (IN3), Universitat Oberta de Catalunya , <sup>2</sup> Universidad Autónoma de Barcelona*

Do STS scholars know how to overcome the limits of their own professional culture to reach other epistemic communities? Are we able to escape the constraints of our own jargon and transform our discourses in such a way to be understood by technologists and engineers? Within the context of the development of smart digital infrastructure projects, the work explores ways to translate academic writing into creative knowledge which can trigger fruitful interdisciplinary exchanges. The role of visual aids, examples, online forum, social media and diplomacy is explored and articulated in relation to the identification of infra-concepts which generate a form of debate that does not have to produce an agreement. The aim of the paper is to present the complex bricolage behind peers' engagement and ask questions on the impact and relevance of social science in the construction of the future with or without technology.

**Troubling Intradisciplinary Boundaries. Reading each other and engaging with the question "What would I have (not) done differently?"**

*Sara Bea & Meritxell Ramirez-i-Olle*

We propose a mutual reading exercise of our research projects with the aim of mapping, exposing, probing and troubling some disciplinary boundaries that are present both in our works in particular, and within the STS field in general. We acknowledge that STS is a highly heterogeneous field that encompasses, in a seemingly harmonious manner, diverse empirical projects and theoretical approaches. Nevertheless, we will offer a few personal vignettes to show that there are some rather unexamined and, in our opinion, troubling intradisciplinary boundaries in STS that deserve further attention. We situate these present tensions as part of a longer history of mannerisms in our field. In our conversation we will be addressing the 'double trouble' that such intradisciplinary boundaries pose to us, firstly about our personal experiences of wishing to engage seriously with each other's work without falling into antagonistic positions, and secondly given that such boundaries trouble us we decided to take action and trouble them back. This will be done through re-enacting our mutual readings whilst attending to the question: what would I have (not) done differently? The ultimate purpose of this collaborative exercise will be to discuss the use, or lack thereof, of a set of theoretical and methodological strategies to inhabit, but also trouble, existing intradisciplinary boundaries within STS.

## **Living matters across boundaries 2/3**

*14.30-16.00, Thursday 8th June, room 3*

### **Las tecnologías de la sangre como tecnologías liminales**

*Pablo Santoro & Mariluce Bomfim de Souza, Departamento de Sociología V (Teoría Sociológica), Universidad Complutense de Madrid, [psantoro@ucm.es](mailto:psantoro@ucm.es)*

En los últimos setenta años se han desarrollado diversas tecnologías biomédicas, cada vez más refinadas, para recolectar, conservar y transfundir los diferentes componentes sanguíneos. Extraída, fragmentada, estandarizada, crio-preservada, la sangre tecnológicamente transformada se ha llegado a convertir en un recurso imprescindible para los sistemas sanitarios contemporáneos. Esta conversión de la sangre en un producto biotecnológico no ha acabado, sin embargo, con el profundo contenido simbólico asociado tradicionalmente al fluido sanguíneo y a su circulación entre los cuerpos – pero sí ha hecho variar, junto con las diversas innovaciones en su manipulación técnica y su gestión sociopolítica, la forma en la que este flujo intercorporal se ve significado. La presente comunicación pretende indagar en las formas en las que las diferentes tecnologías de la sangre se involucran en procesos de construcción de identidades colectivas y en dinámicas políticas de inclusión/exclusión. Recurriendo a los resultados de diversos proyectos de investigación y estudios llevados a cabo por los autores en los últimos años, se analizarán las configuraciones socio-técnicas de tres diferentes tecnologías hematológicas: la transfusión de sangre basada en la donación altruista; el trasplante de precursores hematopoyéticos procedentes de la médula ósea; y la criopreservación privada de sangre de cordón umbilical. Argumentaremos que cada una de estas configuraciones de la sangre funciona como una tecnología liminal que, a la vez que genera nuevos lazos bio-técnicos de reciprocidad entre determinados individuos y colectivos, produce nuevos límites y nuevas fronteras – simbólicas, tecnológicas, territoriales e identitarias – entre grupos sociales.

### **Considerações sobre ética e privacidade no contexto de produção de dados sobre doenças raras**

*Roberta Reis Grudzinski, Programa de Pós-Graduação em Antropologia Social do Rio Grande do Sul – Brasil, investigadora visitante no Centro de Estudos Sociais (CES) – Portugal, [roberta.grudzinski@gmail.com](mailto:roberta.grudzinski@gmail.com)*

Procuro apresentar uma revisão crítica dos debates acerca da coleta e compartilhamento de dados de pacientes com doenças raras. Entre as justificativas de tal empreendimento estão o desenvolvimento de pesquisa, diagnósticos e tratamento, e, por fim, a possibilidade de formulação de políticas de saúde adequadas aos afetados por tais problemas de saúde. Meu

objetivo neste trabalho é, num âmbito geral, realizar um mapeamento das distintas redes de pesquisadores e profissionais financiados pela Comissão Europeia atualmente envolvidos na produção de registros clínicos de pacientes e na construção de biobancos. Esses grupos empreendem tais ações com vistas à produção de uma plataforma global onde procura-se futuramente compartilhar dados de pacientes, para alcanças os objetivos acima mencionados. Procura-se, com base nas competências mobilizadas por tais redes de pesquisa, problematizar como os agentes envolvidos em tal empreendimento compreendem e definem as questões éticas atreladas à produção e compartilhamentos de dados de pacientes.

### **From the lab to the media: DNA technologies on the move**

Marta Martins ([martamartins@ces.uc.pt](mailto:martamartins@ces.uc.pt)), Rafaela Granja ([rafaelagranja@ces.uc.pt](mailto:rafaelagranja@ces.uc.pt)) & Helena Machado ([helenmachado@ces.uc.pt](mailto:helenmachado@ces.uc.pt)),  
*Centre for Social Studies (University of Coimbra, Portugal)*

DNA technologies are increasingly playing a pivotal role in criminal investigations. As they move in various spheres of social life different representations about its potentials and constraints take shape. On the one hand, forensic experts point out the limitations of the use of DNA evidence in the criminal justice system. On the other hand, cultural messages circulated by the media tend to present DNA as infallible evidence to solve crimes. This paper takes as its starting point the recognition that the meanings attributed to the potential of DNA to identify the authors of crimes can be addressed as a boundary object. We aim to discuss how DNA technologies may acquire a different identity in the world of forensic experts and in the world of the media, although maintaining a common identity across sites. Our data draws on the analysis of mediatized criminal cases and on interviews with forensic experts working with the transnational exchange of DNA profiles for criminal intelligence purposes. We argue that representations on the potential of DNA technologies in solving crimes involves a translation work and the creation of fluid boundaries between the lab and the media. Despite the possibility of acquiring different meanings, DNA technologies also present, simultaneously, common features that enable the cooperation of various social actors. One of those features is the shared notion of “transnational suspects”. Media discourses and views of forensic experts about cross border criminality enroll and translate heterogeneous elements into stable assemblages of data that construct common categories of suspicion.

## **Political Economy of Science 2/2**

*14.30-16.00, Thursday 8th June, room 1*

### **A procura do impacto: o modelo de investigador na semiperiferia mundial**

*Fernando Ampudia de Haro, Universidade Europeia / CIES-Instituto Universitário de Lisboa, [fernando.ampudia@universidadeeuropeia.pt](mailto:fernando.ampudia@universidadeeuropeia.pt) / [fernando.haro@iscte.pt](mailto:fernando.haro@iscte.pt)*

Fator de impacto, indexação, número de citações e avaliação são conceitos omnipresentes nas em universidades e centros de investigação: todos eles fazem parte de uma visão específica da publicação científica. Esta, como prática social, envolve uma apropriação do conhecimento além do poder, da desigualdade, das lógicas de mercado e dos modelos específicos de conduta associados. Isto é, a publicação científica contém elementos que a tornam num alvo legítimo para qualquer exercício de sociologia crítica. Como tal, o objetivo desta comunicação é refletir sobre: a) A lógica e o funcionamento da publicação científica entendida, de acordo com Norbert Elias, como uma figuração global que envolve docentes e investigadores, universidades e centros de investigação, o Estado, as editoras de revistas e as empresas de informação e indexação científicas assim como as suas conexões internas e os seus equilíbrios de poder. b) O modelo de investigador subjacente a esta figuração com especial atenção ao campo das ciências sociais. Explora-se o discurso que legitima a publicação científica de acordo com critérios particulares de internacionalização, divulgação e reconhecimento, assim como o modelo de conduta que prescreve. Esse discurso é reconstruído a partir do material pedagógico distribuído nas sessões de formação que as universidades portuguesas, em parceria com as principais editoras de revistas científicas, oferecem aos seus docentes/investigadores com o objetivo de aumentar a sua produtividade e impacto.

### **La frontera entre ciencia y mercado ¿una cuestión de percepción?: Diseño de indicadores para medir la actitud hacia la ciencia en la empresa**

*Irene López-Navarro<sup>1</sup> & Jesús Rey-Rocha<sup>2</sup>*

*<sup>1</sup> Instituto de Filosofía (Centro de Ciencias Humanas y Sociales-CSIC) [irene.lopez@cchs.csic.es](mailto:irene.lopez@cchs.csic.es); <sup>2</sup> Instituto de Filosofía (Centro de Ciencias Humanas y Sociales-CSIC) e Instituto de Estudios de la Ciencia y la Tecnología (Universidad de Salamanca), [jesus.rey@cchs.csic.es](mailto:jesus.rey@cchs.csic.es)*

El enfoque de los estudios de percepción permite aproximarse a los espacios intersticiales entre la ciencia y las comunidades científicas, por un lado, y distintos colectivos más o menos alejados de éstas, ya sea la ciudadanía en

general, o sectores de la misma. El proyecto CC<sup>e</sup> (Cultura Científica Empresarial) analiza cómo el sector empresarial se relaciona con la ciencia, la tecnología y la innovación, a través del estudio de la cultura científica, la percepción y las actitudes de las personas que ocupan cargos de alta responsabilidad dentro de la empresa. En este sentido, partimos del marco planteado en la literatura previa acerca de la posible existencia de una frontera entre ciencia y empresa (o conocimiento y aplicación). Una de las hipótesis del proyecto es que esta distancia no se debe únicamente a cuestiones de tipo económico o estructural (características de la empresa) sino que responde a cuestiones de tipo sociológico y cultural. Por ello nuestro objetivo en este encuentro es presentar la construcción de indicadores de cultura científica empresarial que nos permitan sintetizar las principales dimensiones detectadas en los estudios de percepción de la ciencia: información, interés, actitud y percepción. Para ello contamos con las respuestas de 707 cargos de responsabilidad que respondieron a nuestro “Cuestionario de cultura científica, percepción y actitudes ante la ciencia y la innovación en el sector empresarial español” a finales de 2016.

### **La transformación neoliberal de la ciencia: el caso de las humanidades digitales**

*Eduard Aibar, Universitat Oberta de Catalunya, [eaibar@uoc.edu](mailto:eaibar@uoc.edu)*

Los impactos de las políticas y prácticas neoliberales están produciendo la transformación más importante de la ciencia y la academia contemporáneas desde mediados del s. XX. Desde la década de los 80 las políticas científicas neoliberales han puesto el énfasis más en la creación de valor comercial que en la consecución del bienestar social o en la generación de conocimiento; se ha fomentado el uso de patentes – con leyes de propiedad intelectual cada vez más permisivas sobre el tipo de objetos patentables - más que la difusión abierta del conocimiento y se ha promovido la inversión privada en las universidades y en los proyectos de investigación desarrollados por sus investigadores, con objeto de favorecer aquellas líneas de investigación de mayor aplicación comercial y, por tanto, con mayores expectativas de retorno económico. Este trabajo tiene dos objetivos básicos. En primer lugar ofrecer una panorámica sintética y estructurada de estas transformaciones, haciendo especial hincapié en aquellos cambios que afectan a los métodos, objetos y productos de la actividad científica. La literatura existente sobre estos temas centra su atención, preferentemente, en las ciencias naturales o “duras” como el ámbito biomédico – pionero en los procesos de privatización y comercialización del conocimiento – así que el segundo objetivo de esta presentación es discutir la emergencia de este tipo de fenómenos en un ámbito mucho menos estudiado: el de las humanidades. En particular nos centraremos en el terreno de las denominadas ‘humanidades digitales’.

## **The social life of projects - exploring the grounds for a project about projects**

*Andrea Gaspar<sup>1</sup> & Chiara Carozza<sup>2</sup>, <sup>1</sup>DCV-FCTUC, University of Coimbra, [gaspar.andrea@gmail.com](mailto:gaspar.andrea@gmail.com), <sup>2</sup>CES, University of Coimbra, [chiaracarozza@ces.uc.pt](mailto:chiaracarozza@ces.uc.pt)*

The 'project' has since the 1980's become the standard way of organizing and financing activities in many sectors and areas of economics and public life, with Maylor et al. 2006 talking about a “projectification of society”. Particularly in science, projects have been growing as a mode of funding research activities, encouraging a process of managerialization of research institutions and signing a shift in the relationship between governments and those institutions. But what exactly do projects do? What kind of devices are they? What kinds of things, people, materials, funds and infrastructures do they mobilize? What kind of temporality do they perform (Ylijoki 2015)? Do they work as some form of - let's say, temporal - 'boundary objects'? And what about if they do nothing at all? What about the great amount of projects people abandon for various reasons such as the lack of funding or simply the lack of interest? Can we follow the life (and death, or afterlife) of some of these projects, ethnographically? Or, if we think of them as 'projects in waiting' (similarly to 'objects in waiting', also a project - curated by Newell & Whitehead, in 2006), can we speculatively think of ways of reusing them? Drawing on our personal experience with (research) projects and also on some ethnographic work with the lives of others' projects (specifically in design), in this paper we will explore some of these questions as a means for preparing the grounds for a project about projects.

## **People across spatial boundaries**

*09.30-11.00, Friday 9th June, room 1*

### **Mapeando diásporas online: saharauis entre fronteras físicas y virtuales**

*Silvia Almenara Niebla, Universidad de La Laguna, [silvia.almenara@ull.edu.es](mailto:silvia.almenara@ull.edu.es)*

El concepto de refugiado/a representa el máximo exponente de las consecuencias sociales de un mundo conformado por fronteras físicas. Las limitaciones a la movilidad impuestas por el lugar de origen, por la etnia y por la clase social configuran un escenario donde determinados sujetos no pueden llegar a ser considerados agentes de su propia realidad. El pueblo saharauí conoce de primera mano esta situación tras cuarenta años de exilio y convivencia en campamentos de refugiados/as al sur de Argelia. Sin embargo, en las últimas décadas, los y las saharauis han participado en la redefinición de sus propias fronteras. A través de Internet, han conseguido diluir los límites geográficos y reforzar los aspectos simbólicos que conforman su propia identidad y reivindicación política. Las redes sociales, especialmente Facebook, han permitido conectar a la población de los campamentos de refugiados/as con la diáspora saharauí presente en multitud de países y con las poblaciones bajo control marroquí. El pueblo saharauí se afirma virtualmente a través de banderas, mapas, canciones, lemas y reivindicaciones que se comparten, comentan y discuten. Así pues, esta ponencia tiene como objetivo reflexionar sobre el papel de las fronteras en entornos virtuales y en la configuración de diásporas digitales. A través del caso saharauí analizaremos el papel de las redes sociales en la redefinición de las fronteras e identidades colectivas. Todo ello con el objetivo de contribuir a la reflexión teórica y metodológica sobre los usos cotidianos de las tecnologías y espacios virtuales en contextos sociales particulares.

### **Portugal in the semi-periphery of malaria research**

*Ana Ferreira, Centro Interdisciplinar de Ciências Sociais da Universidade Nova de Lisboa, CICS.NOVA; FCSH-UNL, [afferreira@fcsch.unl.pt](mailto:afferreira@fcsch.unl.pt)*

In 2013, 45% of the world's population was at risk of developing malaria, a disease considered as a major threat for public health, particularly in geographies where it is endemic, mostly poor countries and populations, including regions of all former Portuguese territories. In fact, Portuguese science has been contributing to the understanding of malaria's pathophysiology for a long time. This has been attributed to the endemicity of malaria in continental Portugal until 1973, and the long-standing relations with its former territories. However, no studies have addressed how scientific knowledge construction is framed by the patterns of scientific cooperation established between core countries, semi-peripheral territories, and the

periphery, where malaria remains endemic. This paper addresses this issue through the characterization of the scientific landscape of malaria research in all *Web of science*-indexed publications involving Portuguese organizations (1900-2014; n=467). First, data was systematized by content and bibliometric analyses. Subsequently, multiple correspondence and cluster analyses revealed a bi-dimensional landscape (who is publishing *versus* what is being published) and three profiles: beginners (early non-experimental publications); local appropriations (low-impact research in which Portuguese organizations lead others from former Portuguese territories); global patterns (applied research developed by heterogeneous actors, in which Portuguese organizations are subordinated to others belonging to countries from more established S&T systems). These profiles reveal the construction of Portugal's scientific system and unveil its semi-peripheral role in the world system. More specifically, Portugal adopts scientific modes of production from the center and implements them in the periphery, thus critically reinforcing dominant core countries.

## **O impacte da mobilidade internacional dos cientistas na criação de redes transnacionais de conhecimento**

*Pedro Videira*

A mobilidade científica tornou-se um elemento intrínseco das carreiras científicas. As trajetórias de mobilidade permitem o contacto com conhecimento novo e com novas formas de 'fazer' e 'julgar' na atividade científica (Allen, 2000) e são encaradas pelos investigadores como parte essencial do percurso profissional (Musselin, 2004), e determinante para a construção do seu capital humano e social (Murray, 2004). As políticas europeias também enfatizam esta 'exigência de mobilidade' associando-a à excelência e competitividade (Ackers 2008). A relevância atribuída à mobilidade internacional é igualmente visível ao nível das políticas nacionais, particularmente em países com sistemas científicos mais periféricos. Espera-se das políticas que encorajam a mobilidade internacional dos investigadores que permitam o acesso a conhecimento avançado em sectores menos desenvolvidos nos sistemas científicos nacionais (Mahroum 2000; Jöns 2007) e a inserção dos cientistas em redes de conhecimento internacionais que poderão ser mobilizadas após o seu retorno (ou mesmo sem esse retorno através de redes diaspóricas). Através dos dados de um inquérito com uma amostra alargada de doutorados portugueses a trabalhar em instituições públicas de investigação, e recorrendo a uma metodologia que engloba métodos da análise de redes sociais, pretende-se com esta apresentação: i) aferir o impacte da mobilidade internacional na construção de redes internacionais de acesso a conhecimento que perduram após o regresso dos cientistas ao seu sistema científico nacional; e ii) analisar possíveis diferenças ao nível das redes de conhecimento criadas entre cientistas com diferentes trajetórias de mobilidade internacional (de curta ou longa duração, durante ou

após o doutoramento, etc.). Desta forma, pretende-se contribuir para um melhor conhecimento sobre o papel desempenhado por diferentes tipos de mobilidade internacional em dinâmicas transnacionais de circulação de conhecimento.

### **A mobilidade de cientistas como processo comunicativo e cultural: práticas, desafios e exigências**

*Emilia Rodrigues Araújo<sup>1</sup>, Thérèse Tam<sup>2</sup>, Juliana Barboza<sup>3</sup>; <sup>1</sup>Universidade do Minho, CECS, [emiliararaujo@gmail.com](mailto:emiliararaujo@gmail.com) ; <sup>2</sup>Universidade de Timor Leste, [atam320@gmail.com](mailto:atam320@gmail.com); <sup>3</sup>Universidade do Minho/Instituto Federal do Rio Grande do Norte, [julianarangelbarboza@gmail.com](mailto:julianarangelbarboza@gmail.com)*

Os cientistas e investigadores, particularmente os que se encontram em mobilidade (que não se define apenas no sentido de um país para outro país, mas que pode envolver um conjunto complexo de relações entre vários países), auto identificam-se frequentemente através da capacidade que assumem de experimentarem contextos culturais e políticos diversos, posicionando-se em lugares “acima” das fronteiras nacionais – portanto, em espaços-tempo transnacionais. Esta comunicação versa, portanto, sobre as experiências de mobilidade de investigadores de diversas nacionalidades e explora o modo como estas experiências podem ser fundamentais para explicitar o entendimento da mobilidade como processo cultural e comunicacional, propondo e sugerindo novas práticas de entendimento e de gestão da internacionalização e das dinâmicas de mobilidade envolvendo este público. Através de entrevistas e inquérito por questionário a investigadores estrangeiros que estudam e desenvolvem projetos de investigação em centros nacionais e outros portugueses que interagem com aqueles, foram analisadas diversas dimensões relacionadas com a experiência de mobilidade, nomeadamente no que se refere aos modos de situação e de comunicação intercultural . Esta análise e discussão foram elaboradas partindo das abordagens sobre a mobilidade já existentes, incluindo estudos acerca da comunicação e da mediação intercultural, bem assim como construção e impacto das redes e da diáspora em ciência, perante a transnacionalidade e a construção de espaços-tempos exotópicos favoráveis a novas “extensões” culturais em lugares de ciência e de investigação. É nosso argumento que o entendimento da mobilidade e a sua relação com a internacionalização sob uma perspetiva cultural, da qual não se aparta uma análise à importância da memória e do poder na constituição das representações que mediam esse relacionamento, sublinha o interesse político desta prerrogativa no desenho e operacionalização de políticas de envolvimento efetivo dos investigadores estrangeiros em mobilidade, não só no desenvolvimento dos projetos de investigação, de modo estrito, mas em toda a dinâmica de mudança e metamorfose cultural que a deslocação implica.

## **Concepts across boundaries**

*09.30-11.00, Friday 9th June, room 2*

### **A la sombra de la referencia circulante**

*Francisco Salinas Lemus, Institute of Education, UCL – Reino Unido,  
Núcleo de Teoría Social, UDP – Chile, [f.lemus.15@ucl.ac.uk](mailto:f.lemus.15@ucl.ac.uk)*

Uno de los grandes méritos del trabajo de Bruno Latour reside en la vida que sus estudios etnográficos han dado a instrumentos técnicos, laboratorios y al trabajo de los científicos. En términos teóricos, su concepto de *referencia circulante* condensa particularmente bien esta dinámica, aludiendo a la concretitud de las cadenas socio-materiales de abstracción con las que operan las prácticas científicas. Según el autor, las referencias circulantes son frágiles pasadizos que, en el mismo plano de inmanencia, permiten una conexión pragmática entre lenguaje y mundo. Pese a ello, se podría sospechar que algo se esconde en la apertura de esta “caja negra”. En un rincón sombrío operan una maraña de elementos metafísicos, normativos, políticos y gramaticales ocultos tras un manto retórico. Latour tiene concepciones sobre la realidad, el deber ser, la organización colectiva y el vocabulario propicio para las ciencias humanas que son totalmente debatibles. Pero persuade hacia una trampa: seduce con sus excelentes etnografías y enrola a sus víctimas en una red semántica e ideológica que puede pasar desapercibida para quienes pasan por alto sus ironías. Sugiero poner atención a las abstracciones que Latour realiza cuando deja de seguir a los científicos y pensar en qué hace cuando deja de describir. Por sobre todo, propongo atender a sus pretensiones como autor y figura intelectual. Más aún, me gustaría sugerir que la metáfora animal que Latour propone para su trabajo ha demostrado ser insuficiente: cabe explorar si es que la hormiga [ANT] no es más bien una araña de rincón.

### **El concepto de información como objeto limítrofe en biología: del Dogma Central a la bioinformática**

*César González Herrerías, Universidad de Oviedo,  
[cesarherrerias@hotmail.com](mailto:cesarherrerias@hotmail.com)*

Desde la publicación de la Teoría Matemática de la Comunicación por Claude Shannon en 1948 (Shannon, 1948), el concepto de información ha adquirido un papel fundamental en el desarrollo de las distintas ramas de la biología a lo largo del siglo XX y el presente siglo XXI. Es el caso de la genética y la bioinformática, contextos donde se erige como verdadero objeto limítrofe cuya definición es esquivada, admitiendo múltiples interpretaciones y permitiendo la colaboración entre científicos con formaciones diversas. No se trata de un simple proceso de mutua contaminación terminológica, sino de un mecanismo

de coevolución que se remonta al mismo enunciado de Dogma Central de la biología y la emergencia de la cibernética. De la secuenciación automática de genomas al empleo de algoritmos evolutivos, o del biochip a la computación basada en el ADN, el concepto de información fluye libremente entre disciplinas desdibujando fronteras físicas y conceptuales. El propósito de la comunicación que se propone es poner de manifiesto tales interconexiones, abordando los diferentes usos del término y su justificación epistemológica, para avanzar hacia una reformulación del concepto de información que incorpore estas características abriendo paso a posibles nuevos desarrollos teóricos.

### **Azar controlado y probabilidades: enfoque multidisciplinar**

*Miguel Yarza Luaces, Universidad Pontificia Comillas,  
myarzaluaces@gmail.com*

El uso de las palabras azar y probabilidad lleva con frecuencia a situaciones ambiguas confusas e incongruentes. Esto se debe, por una parte, a su uso en el lenguaje común con un sentido laxo y ambiguo y, por otra, a su uso en algunos lenguajes más especializados con unas significaciones más o menos precisas pero que se refieran a acepciones muy distintas. Aquí se trata de discernir, trabajar y expandir los espacios intersticiales entre estas fronteras conceptuales. Se reflexiona, a partir del ejemplo más sencillo ligado a las probabilidades de tipo azar controlado, lanzar una moneda al aire, sobre su relación con la probabilidad matemática y a continuación con la algorítmica y la convencionalmente denominada subjetiva. El análisis se puede hacer desde distintos puntos de vista, y claramente son significativos al menos, el del matemático, el físico, el ingeniero y el antropólogo. Pero, teniendo en cuenta que para obtener una visión holística se han de cruzar las fronteras de los sistemas epistemológicos propios de estas disciplinas, parece inevitable la perspectiva del filósofo. En este sentido el estudio se plantea como un dialogo entre unos personajes que representan estos distintos tipos de aproximaciones completado con otro, que denominó ingenuo, que representa al hombre común que con frecuencia cae en aparentes paradojas. El trabajo se apoya en varias publicaciones del autor sobre estos temas y en las de autores tales como: Hacking, Hajek, Huber, Jeffrey, Kolmogorov, Lakatos, Merzbach, von Mises, Piaget, Ramsey,...

### **Ideology across boundaries: the construction of an international Catholic network of education sciences as boundary object.**

*Antonio Fco. Canales Serrano, Dpto. de Historia y Filosofía de la Ciencia, la Educación y el Lenguaje, Universidad de La Laguna, [acanales@ull.edu.es](mailto:acanales@ull.edu.es)*

This paper aims to show how geographic and social boundaries are traversed and overtaken by certain type of boundary objects that move and act through

them connecting instead of separating. These boundary objects are constituted by shared ideas, conceptions and attitudes with a common ideological identity across sites. These boundary objects ease the communication of actions, ideas, programs and people through boundaries. This is the case of international networks in different spheres, from scholar to religious ones. This paper focuses on the international Catholic network built in education at the end of the forties and beginning of the fifties. This was a scholar network of universities, but it had a strong constituent religious and ideological alignment. It was chiefly a Catholic network, whose objective was to face the new ideological context born after the defeat of fascism. The network tried to reformulate traditional Catholic positions under a new form through experimental pedagogy. This network was based on Francoist Spain and the Spanish educationalists promoted by the regime played a key role in it. The paper will describe this network and its action through country, societies and political boundaries. This Catholic network went beyond boundaries in at least two directions. First, it overcame the boundary between science and religion; secondary, it overcame national boundaries and especially the international isolation of Francoism. Finally, it will be concluded that this case shows the importance of ideological alignments, more than strictly academic ones, as a way to overtake boundaries.

## **Collaborations across boundaries**

*11.30-13.00, Friday 9th June, room 1*

### **Fronteiras políticas e linguísticas da investigação: Colaboração científica em Portugal e Espanha na área das energias renováveis**

*Luis Junqueira, ICS-UL*

Alem da sua proximidade geográfica, os sistemas científico português e espanhol aproximam-se também por circunstâncias históricas. Ambos saíram de regimes autoritários na década de 70 com sistemas científicos pouco desenvolvidos e relativamente fechados, que se desenvolvem com a adesão à União Europeia. Assim, partilham um percurso simultâneo de integração num espaço europeu de ciência, dominado por alguns dos principais centros de produção científica, como o Reino Unido ou a Alemanha, ao mesmo tempo que mantem uma ligação privilegiada com os países da América Latina devido à proximidade linguística. Na área das energias renováveis partilham um trajeto de rápida implementação de energias renováveis a partir da década de 2000 que os colocou no topo dos países que mais recorrem as estas tecnologias na produção de energia elétrica e que foi acompanhada de uma promoção da investigação na área a nível nacional e comunitário. Mas como estão hierarquizadas estas redes de colaboração que sustentam esta investigação? Que instituições estão envolvidas nas redes internacionais? Qual a importância dos parceiros europeus e da América Latina? Este trabalho propõe-se a explorar a relação entre os sistemas científicos dos dois países, assim como a sua integração internacional, através duma análise das redes de colaboração científica em energia renováveis, com base em recolha de dados bibliométricos.

### **Assembling transnational cooperation. Tensions between global standards and local implementation**

*Filipe Santos & Helena Machado, Centre for Social Studies, University of Coimbra, Portugal, [filipesantos@ces.uc.pt](mailto:filipesantos@ces.uc.pt), [helenamachado@ces.uc.pt](mailto:helenamachado@ces.uc.pt)*

The concept of boundary object has been employed where the “same” object acquires “different” uses and interpretations for multiple social groups. In this sense, the notion of boundary object has become almost synonymous with interpretive flexibility. In a more recent reflection on the concept, Susan Leigh Star argues that its usefulness should also regard the scale and scope of application, particularly on an organizational level, in order to understand the meanings of its materiality and infrastructural properties. This paper explores the operation of an EU-wide technoscientific system for the transnational exchange of DNA data – the Prüm system – as a boundary object. Drawing from interviews with national contact points (NCP) responsible for the implementation and operation of the system, we explore the situated

coordination among them. On the one hand, this coordination allows cooperation and work without consensus. On the other hand, it provides a foundation for a flexible and continuous process of articulating and disentangling a collective identity. The activities associated to the functioning of Prüm system offer an exceptional case for the study of the development of a structure across national borders into differentiated and hierarchized local contexts. However, its necessary plasticity and adaptation to local practices and structures is confronted with the demands for stability in a cooperative transnational system. We seek to explore how the situated coordination of the actors involved in the operation of Prüm assembles transnational cooperation. Global processes of harmonization and standardization merge with the often contentious and situated nature of local practices.

### **Indagação Colaborativa: Ciência e Sociedade nas Fronteiras (notas sobre a fabricação múltipla do fenómeno gaguez)**

*Daniel Neves Costa, Centro de Estudos Sociais da Universidade de Coimbra, [danielneves@ces.uc.pt](mailto:danielneves@ces.uc.pt)*

As interações entre ciência e sociedade ocorrem numa diversidade de espaços, articulando diferentes atores e práticas de envolvimento. Esses espaços definem a fronteira entre ciência e sociedade co-constituídas na produção dos fenómenos que compõem o mundo, e dos públicos associados. Nesta apresentação, mobilizando trabalho desenvolvido sobre Gaguz em parceria com a Associação Portuguesa de Gagos, proponho problematizar a implementação de indagações colaborativas, articulando atores sociais e dos mundos da Ciência, em torno de “objetos de fronteira” (Star e Griesemer, 1999). Estas indagações mobilizam dispositivos que se constituem enquanto espaços de fronteira onde ciência e sociedade se interpenetram e se co-constituem. A metáfora da fronteira procura dar conta dos espaços e objetos de intersecção entre conhecimentos, indivíduos, coletivos e instituições em dinâmicas coletivas de indagação que constituem os fenómenos que compõem o mundo comum. Esta fronteira entre ciência e sociedade emerge como lugar do político, de experimentação, interpelação e transformação das relações de poder entre distintas redes e traduções dos fenómenos, indagando outras possibilidades de tradução através da análise dos seus efeitos no mundo, e como lugar de “política ontológica” (Mol, 2008), de exploração da multiplicidade e das escolhas que emergem nas dinâmicas de recomposição do mundo. Por último, será alvo de reflexão as dificuldades da Sociologia, produtora de relatos que participam na composição do mundo comum (Latour, 2005), de dar conta da multiplicidade e das transformações no social que estas indagações produzem, com destaque para a reconfiguração de públicos, identidades individuais e coletivas, e de Organizações da Sociedade Civil.

## **Práticas e políticas agrícolas: a batalha Ibérica contra as pragas de gafanhotos**

*Inês Gomes*<sup>1</sup>, *Ana Isabel Queiroz*<sup>2</sup>, *Daniel Alves*<sup>3</sup>; <sup>1</sup>*CIUHCT, FCUL, [gomes.ida@gmail.com](mailto:gomes.ida@gmail.com)* <sup>2</sup>*IHC, FCSH, [ai\\_queiroz@fcsb.unl.pt](mailto:ai_queiroz@fcsb.unl.pt)*, <sup>3</sup>*IHC, FCSH, [alves.r.daniel@gmail.com](mailto:alves.r.daniel@gmail.com)*

O estudo da interação entre a natureza e a sociedade ao longo do tempo levanta à História um vasto conjunto de desafios metodológicos. Porque se trata de compreender como os humanos moldam o ambiente que os rodeia e como são moldados por ele, a investigação exige a integração de um complexo número de variáveis naturais e culturais, documentadas em diversos tipos de fontes, analisadas com diferentes ferramentas e interpretadas num contexto interdisciplinar. Para além disso, quando falamos de natureza, desvanecem-se as fronteiras entre Estados. No que se refere à fauna, e sobretudo a todos os seres alados, as divisões administrativas não impedem a sua circulação. Se dois países (como Portugal e Espanha) partilham o mesmo espaço (a Península Ibérica), não há fronteiras que se oponham ao movimento de animais. O estudo das invasões de gafanhotos ocorridas na Península Ibérica está a ser desenvolvido no quadro de um projeto de investigação sobre história das pragas agrícolas. Desde o final do século XIX, as respostas dos serviços agrícolas portugueses e espanhóis a esta praga apresenta paralelos que indiciam uma história de observação, comparação e apropriação de políticas e procedimentos. No entanto, a percepção da 'sociedade' relativamente à sua origem e à eficácia das medidas tomadas indicia, pelo contrário, uma história onde pessoas, tecnologias e práticas pareciam estar de costas voltadas.

## **Living Matters across boundaries 3/3**

*11.30-13.00, Friday 9th June, room 2*

### **Ape in translation: el proceso de traducción y la constitución de nuevos seres y nuevos mundos en los experimentos con simioides**

*Rubén Gómez-Soriano, UNED, [rubengomezsoriano@gmail.com](mailto:rubengomezsoriano@gmail.com)*

Siguiendo la misma línea de los trabajos que presenté en los últimos encuentros de la red esCTS (2014 y 2015), quisiera continuar reflexionando en torno a algunos casos concretos de simios “enculturados” o *simioides* (p. e.: Nim o Kanzi), como yo prefiero denominarlos. Estos seres, que han sido utilizados en investigaciones vinculadas con el aprendizaje y la comprensión lingüística, se articulan en unos dispositivos experimentales cuyas características (p. e.: una alta recalcitrancia) pueden constituir un buen ejemplo de lo que Latour o Stengers han denominado proposiciones altamente articuladas, donde el simio deja de serlo para convertirse en otro ser diferente. Atendiendo a las peculiaridades y características concretas de cada caso específico, me planteo explorar de qué manera estos dispositivos constituyen nuevos seres y generan nuevos mundos compartidos a través de un proceso de traducción, que no es ni mucho menos inmediato. Por el contrario, se producen ajustes, se multiplican las definiciones a partir de la pregunta inicial –¿Puede un simio aprender a hablar?– y se van generando nuevas experiencias a través del vínculo que necesariamente se establece, en el proceso de afectar y dejarse afectar por el cuerpo del otro.

### **Variaciones de la carne: infraestructuras vivas de un estado moderno**

*Gonzalo Correa, Instituto de Psicología Social, Universidad de la República (Uruguay), [gcorrea@psico.edu.uy](mailto:gcorrea@psico.edu.uy)*

En esta comunicación presentaré las líneas argumentales del proyecto “VA.CA.: Variaciones de la carne”. Este proyecto indaga el papel de la muerte masiva animal (vacas) en la consolidación de un estado moderno del sur (Uruguay) que deviene factoría de carne para el consumo humano en el norte. En otras palabras, el proyecto versa sobre el papel infraestructural que posee la muerte animal para la configuración de las fronteras y los puntos de paso que separan el norte del sur mediante la diagramación del estado como forma de conexión global. Estas fronteras, lejos de ser esenciales, son cambiantes, hechas de infraestructuras que conectan y desconectan las praderas de la Pampa con, según el momento histórico, el modo de producción esclavista de Cuba y Brasil (segunda mitad del siglo XIX), la maquinaria bélica anglo-americana (I y II Guerra Mundial) y el comunismo capitalista de China (siglo XXI). Brevemente, mostraré el método de la rumiación inspirado en las vacas que tomo para llevar a cabo la exploración. Se trata de rumiar la idea de la

tanatopolítica animal de escala global para la infraestructuración de una biopolítica humana de escala local (instauración y modernización del estado uruguayo) a través de 4 estómagos muy distintos entre sí: una etnografía sobre la incorporación de un cajón de aturdimiento en un frigorífico; conversaciones con artistas que han hallado su inspiración en torno a la vaca; grupos de discusión y charlas con consumidores de carne y animalistas y la historiografía uruguaya de los siglos XIX y XX.

### **Cancer on paper: stories and objects of illness among women, spoken words, art and written science**

*Susana de Noronha, CES (Centre for Social Studies, University of Coimbra), [susananoronha@yahoo.com](mailto:susananoronha@yahoo.com)*

This presentation summarizes the third part of a research trilogy written about the art and material culture of cancer. Working between social science and art, it gives applicability to the first two investigations, proposing an understanding of art and objects as constitutive parts of cancer, that is, of how illness is sensed and lived, between sensations and thoughts (Noronha, 2009, 2015). Giving use to consolidated concepts, considering cancer as a “modular disease” and objects as illness’s “built-in realities”, it tells the stories of eight Portuguese women, looking for the objects and materialities that shape the experience of cancer. Constructed as an intersubjective and multidisciplinary exercise, while understanding these cancer(s), it refuses a separation between experience, science and art, bringing bodily *senses*, drawings, photography and imagination to the centre of the investigation, mixing and using them as materials, resources, tools, methods and forms of knowledge. This exercise resulted in a “text filled with things”, (re)mixing parts of cancer among bodies, sensations, emotions, spoken words, ethnography, creative writing and scientific illustration, made in what I call the “third half of things and of knowledge”. Texts and images, drawings and photographs, result from a creative and collective construction between me and the eight women, departing from their illness narratives, giving form, meaning and a social/public use to individual experiences of malignant tumours.

### **Nueva Carne en odres viejos: La subjetividad en el cine de David Cronenberg**

*Iván Sánchez-Moreno & José Carlos Loreda Narciandi, (UOC / UNED), [ivan.samo@gmail.com](mailto:ivan.samo@gmail.com), [jcloreda@psi.uned.es](mailto:jcloreda@psi.uned.es)*

Nuestro trabajo intentará plantear un modelo de subjetividad alrededor del concepto de Nueva Carne según la obra de David Cronenberg. Por Nueva Carne se entiende un conjunto de manifestaciones estéticas surgidas a finales del siglo XX referidas a la transformación del cuerpo humano por la fusión entre organismo y materia, tanto por un accidente tecnológico como por

resultado de una crisis de personalidad. Nos preguntamos si el concepto de Nueva Carne es pertinente para entender ciertos trastornos provocados por un cambio de perspectiva respecto a los modelos clásicos de subjetividad. En los personajes cronenbergianos suele darse una evolución que generalmente es provocada por algún cambio tecnológico o el contacto con una nueva forma de experimentar la realidad. Nuestro trabajo constará de tres partes. La primera dibujará un marco para definir el concepto de Nueva Carne no tanto desde un punto de vista estético cuanto sosteniéndolo sobre argumentos ligados a la historia de la psicología. Dado el declarado interés de Cronenberg por el dualismo cartesiano (mente/cuerpo), consideramos pertinente explorar una teoría de la subjetividad en torno a su obra. Seguidamente veremos cómo el impacto tecnológico –tanto físico como psicofisiológico– posibilita nuevos horizontes de reflexión sobre el objeto de estudio de la psicología. Por último, analizaremos los films de Cronenberg atendiendo a los fenómenos que intervienen en el cambio que los protagonistas sufren respecto a su propio autoconcepto y el tipo de propósito que identifican para su nuevo yo tras dicho cambio.

## **Temporalities across boundaries**

*17.00-18.30, Friday 9th June, room 1*

### **Senior cohousing and the future-making of aging in participatory care innovations**

*Daniel López Gómez, Internet Interdisciplinary Institute (IN3), Universitat Oberta de Catalunya, dlopezgo@uoc.edu*

Ageing is usually seen as a process of decay and disengagement. After retirement, we are gradually excluded from certain social activities, sooner or later we become a caregiving burden on our family and then we either lose independence, if we end up in a nursing home, or feel increasingly alone at home despite being connected to a remote care system. This prospect of ageing mean for some people at a certain age: heading relentlessly towards a dead-end trap. In response to this feared destiny, collaborative housing projects for older people are springing up all over Europe and USA in the last 5 years (Labit 2015). These are grassroots care innovations led by older people, who come together to self-manage their future in their own terms, but also supported by groups of architects, caregivers and policy-makers seduced by the futures these innovations bring about. Following Adams, Murphy and Clarke (2009), Maria Puig de la Bellacasa (2015), Adam & Groves (2011), this paper is an attempt to unsettle (Murphy 2015) how we care for our future as ageing beings, and in particular, how technoscientific futures related to ageing are enacted as ethico-political imperatives in the construction of participatory care innovations such as senior cohousing. Drawing on ethnography about the flourishing of senior cohousing movement in Spain, I aim to understand how later life both is cared for and organizes care. To do so, I will firstly analyse how ageing is futurized in different participatory decision-making processes. Secondly, I will show how these futures of ageing shape the construction of the senior cohousing as a “good” and “sustainable” care innovation: what kind of care arrangements sustain and are sustained by these ageing futures? And last but not least, I aim to reflect upon the realities that are shadowed by the anticipation of these ageing futures.

### **I+D+i+rEvolución: Comunicación sobre el desarrollo del prototipo Xarxa Oberta Beacons Barcelona- XOB**

*Marcos Cereceda Otarola<sup>1</sup>, Jordi Roig de Zárate<sup>2</sup>, Marc Vallribera i Ros<sup>3</sup> y Karla Berrens<sup>4</sup>; <sup>1</sup>STS-b Universitat Autònoma de Barcelona, <sup>2</sup>Escola d'Enginyeria UAB, <sup>3</sup>Escola d'Enginyeria UAB, <sup>4</sup>Universitat Oberta de Catalunya*

¿Y si la ANT se va a los barrios y sus pequeñas asambleas? Actualmente, desde diferentes lugares de Barcelona se están generando respuestas

alternativas a la proyección de políticas para impulsar la controvertida e hipotética *Barcelona Digital* o *Barcelona Smart City*. Desde este escenario, presentamos una selección de datos etnográficos sobre el desarrollo del prototipo XOB, para sostener que con ciertos usos de la ANT es posible alterar o poner en jaque los intereses económicos de corporaciones o monopolios. La Xarxa Oberta Beacons Barcelona (XOB) es un proyecto financiado por el Ayuntamiento, que derivó de una alianza entre diferentes colectivos de la ciudad, para desarrollar infraestructura digital abierta basada en tecnología de balizas (*beacons*) que mediante el *smartphone* permite que personas con diversidad sensorial obtengan una mayor información del entorno. Durante el desarrollo del proyecto, hemos usado la ANT como un manual de dinamización comunitaria, mientras que para el desarrollo técnico nos hemos basado en los principios de los STS. Sin embargo, fue un proyecto coordinado desde las asociaciones ciudadanas, lo que nos ha llevado a reflexionar en torno al diseño participativo de tecnologías, cuando éste se dirige claramente a dar respuesta política y tecnológica a los intereses de los monopolios. Esto nos conduce a replantear el formato de investigación con el I+D+i+r para producir conocimiento de manera transversal, redistribuyendo los vínculos entre la universidad, empresas y el Estado.

### **Assembling desires: Synthetic biology and the wish to act at a distant time**

Ana Delgado, TIK Center for Innovation, Technology and Culture, University of Oslo, [ana.delgado@svt.uib.no](mailto:ana.delgado@svt.uib.no)

When looking back at developments in the life sciences, fields such as botany, agronomy and more recently biotechnology seem to have developed through ambitions of transgressing frontiers and colonizing new territories. In Pandora's Hope, Bruno Latour (1999) describes how such scientific interventions were performed through spatially oriented epistemological strategies: Science could thus turn the Amazonian jungle into a system of Cartesian coordinates (Latour, 1999). Plants and other pieces of the Amazonian forest were extracted from their original context, to be turned into pure (or purified) matters of fact. The forest was represented objectively. By such work of objectification, nature was often turned into a catalogue of exotics wonders, to be transported to other parts of the world, to become the property of collectors and pieces of a universal natural history (Leigh Star and Griesemer, 1989), and later fragments of a global biodiversity. Those fragments of nature were often presented as discoveries. Yet, as science gets closer to industry, it becomes more apparent that discoveries might not be easily distinguishable from inventions, as when standard Genetically Modified (GM) seeds were locally produced, then globally exported. My concern in this paper is with what happens when the objects of scientific research are decreasingly justified as discoveries or inventions, but they are publicized as innovations. What the paper suggests is that as the scientific enterprise gets

increasingly oriented towards the affordance of novelty, we might need to consider an approach to epistemology that is not only (or mainly) concerned with space (and with representation for that matter) but also with time, and particularly with the conquering of another frontier: the future.

### **Modelar desde lo inexistente: deseos, mapas y vivienda social**

Francisca Cancino Contreras, Universidad de Chile, [francisca.cancino@live.cl](mailto:francisca.cancino@live.cl)

La vivienda social en Chile, luego de la instauración de un modelo neoliberal a fines de la década de los 70s, ha estado al servicio de la reproducción de espacios de pobreza y desigualdad. Lo anterior ha generado un paisaje desolador, afectando hábitats, identidades y estilos de vida. Tras varias décadas, en 2006, surge una organización de pobladores –el *Movimiento de Pobladores en Lucha* [MPL] – que no solo aspira a la obtención de viviendas, sino además orientar sus vidas bajo el concepto del <buen vivir>. Este ideario, tomado de la cosmología andina, más que generar una contraposición a la noción capitalista de <vivir mejor> plantea una absorción de éste mediante la vida digna. Pero, ¿Cómo es posible traducir dichas aspiraciones en objetos concretos? ¿Cómo validar lo aún inexistente? En esta presentación, comparto un trabajo de investigación y diseño arquitectónico que realicé durante un año en el MPL. Mediante entrevistas a dirigentes y grupos focales con militantes beneficiarios del subsidio de vivienda, fue posible mapear las estructuras de la cotidianeidad de sus participantes, en relación a sus deseos respecto a su futura vivienda. Realizando un proceso de traducción de sus mapas de vida diaria y anhelos tuve la posibilidad de crear mapas técnicos de posible realización, dando forma a un diseño arquitectónico de un conjunto. Basada en esta experiencia, se concluye que el concepto del buen vivir es traducible al lenguaje de la forma como instrumento de resistencia ante el aparato público-estatal de reproducción del hábitat.

## **Subjectivities across boundaries**

*17.00-18.30, Friday 9th June, room 2*

### **Tecnologías y traducciones en la educación superior: Formación en salud en una universidad tradicional chilena**

*Marcela Apablaza S., Jimena Carrasco M., Universidad Austral de Chile, [marcela.apablaza@uach.cl](mailto:marcela.apablaza@uach.cl), [jimenacarrasco@uach.cl](mailto:jimenacarrasco@uach.cl)*

Se analizan los procesos de transformación en la educación superior chilena ocurridos durante la última década, con énfasis en las formas de subjetivación académica. Utilizando el marco de Gubernamentalidad, se abordan las orientaciones internacionales respecto de la educación superior, surgidas a partir del llamado Proceso de Bolonia en Europa y su migración como fuente de influencia en los sistemas en América Latina. Luego se realiza un estudio de caso, en una carrera del área de la salud en una Universidad tradicional Chilena, a partir del cual se pretende dar cuenta de cómo el llamado Modelo de Formación por Competencias configura nuevas tecnologías que actúan como mediadores, es decir, como artefactos que van transformando la profesión académica, así como las lógicas de gobierno que las inspiraron. Para el caso en estudio se observa que los académicos van adoptando dicho modelo, en la medida en que este logra traducir sus intereses. Al mismo tiempo se observa que los intereses de los académicos han sido transformados por la introducción de tecnologías de control y de gestión. Se concluye que el Modelo de Formación por Competencias, pese a que es presentado como una herramienta neutral y acabada, es una tecnología que contiene ciertas las lógicas de gobierno y que estas son entramados heterogéneos que se van transformadas por medio de las prácticas en cada uno de los contextos en los que son traducidos.

### **Perspectivas tecno-olfativas sobre los límites de la modernidad**

*Jennifer McColl Crozier, Facultad de Arte, Universidad Mayor, Chile, [jennifer.mccoll@mayor.cl](mailto:jennifer.mccoll@mayor.cl)*

La pregunta sobre el lugar que ocupa el olfato y el aroma en nuestra sociedad, problematiza la idea contemporánea sobre la supremacía de la percepción visual y la hiper-digitalización de la información. Es a partir de una sospecha por el olvido histórico en torno a los olores que se piensa en la relevancia de un nicho de investigación que demarca zonas de acercamiento interdisciplinarios (*crossboundaries*). La preponderancia de lo visual dentro de la historia, la estética y el desarrollo científico permite una distancia para dividir y establecer límites claros respecto de lo que se 've'. Por ende, los aromas corporales han sido reemplazado por el aroma de maquinarias, medicinas y productos de limpieza, diseñando así una imagen olfativa de la

modernidad (Peter Sloterdijk). Entonces, es a partir de las ideas de atmotécnica de Sloterdijk que se busca establecer una doble tensión: Por una parte, la falta de un lenguaje específico para describir las sensaciones olfativas, tensiona la idea del logocentrismo a partir de una volatilidad tal propia de la misma materialidad que lo constituye. Por otra parte la imposibilidad de conservar (o digitalizar) aromas problematiza la idea de un tecnocentrismo, siendo imposible mantener en el tiempo la materialidad en cuestión, dejándoles en el borde de un campo de explotación tecno-científico. De este modo se proponer abrir las preguntas sobre un giro sensual dentro de la academia desde donde pensar los sentidos 'bajos' como una clave de entrada para preguntarse no solo por la historicidad de lo visual, sino que también instalar cuestionamientos en torno al desarrollo científico, social, arquitectónico, entre muchas otras, pensándolo como un campo de expansión abierto hacia temas relacionados con la ciencia, el desarrollo tecnológico, humanidades y arte.

### **Meditation... lost in translation? The case of mindfulness**

*António Carvalho, Centre for Social Studies, University of Coimbra,*  
[antoniomanuelcarvalho@gmail.com](mailto:antoniomanuelcarvalho@gmail.com)

Over the past three decades, psychologists, neuroscientists, phenomenologists and educators have displayed a growing interest in mindfulness, a contemplative practice which aims at enhancing the experience of the present moment. Mindfulness has been implemented in the prevention of stress and heart diseases and in the management of pain. Encounters between scientists and practitioners of mindfulness have filled the public imagination of this practice with images of brain scans, visual testimonies of the effectiveness of this technology of the self. This presentation will offer a reflection on the multiple processes which transformed traditional forms of meditation into what nowadays is called "mindfulness". I am particularly interested in a number of devices which encompass neoliberal models of subjectivity (including a growing focus on autonomy, self-control, happiness and well-being); ways of quantifying and visualizing "inner experience" through medical imaging techniques such as fMRIs; forms of commodifying traditional religious and spiritual practices, overlooking relevant ethical and social dimensions. These ways of modernizing and translating meditation into contemporary forms of mindfulness will be explored by resorting to a literature review focused on various highly-cited papers on mindfulness, stemming from disciplines such as psychology, neurosciences and cognitive science. Through the support of post-humanist STS and Foucauldian approaches to the history of subjectivity, this presentation will delve into the heterogeneous assemblage of mindfulness, coupling various aspects such as neoliberalism, the quantified self and neurological subjectivities.

## **How to do things with reality. Augmented reality and the digital forms of subjectification**

*Federica Buongiorno, Istituto Italiano per gli Studi Filosofici (Naples, Italy), [federica\\_buongiorno@hotmail.it](mailto:federica_buongiorno@hotmail.it)*

In 2011 the third episode of the first series of “Black Mirror” – a British television series created by Charlie Brooker – was first broadcast on Channel 4. The episode, entitled “The Entire History of You”, describes a reality in which most people have a microchip implanted behind their ear recording every action of their “everyday life”. This is basically a form of augmented memory that allows memories to be played back either in front of the person’s eyes or on a hologramatic screen: the episode explores the pitfalls of future technology through the neurotic breakdown of the protagonist, Liam, who starts to suspect his wife of having a secret affair with an old friend of hers. He begins to obsess over his memories, searching through them for evidence of an affair – until he finds it. Due to the progress of digital technologies, the concerns about the boundaries to be set between *reality*, *virtual reality* and *augmented reality* are now a mainstream topic: especially AR, with its ambiguous combination of virtual and actual reality (for instance in many “lifelogging” activities in our everyday life) is currently modifying our traditional ways of subjectification, i.e. our ways of conceiving (and perceiving) ourselves as subjects: rather than on self-knowledge, we are now focusing on our performative abilities. But what does it mean that an extraordinary increasing amount of people are now – in a more or less conscious way – participating in augmented reality activities? Is this a new digital community? Which impact does this have socially?

## **Special Sessions**

### **History of Red esCTS meetings – Infographics poster**

*Thursday 8th and Friday 9<sup>th</sup> June*

*Livia Barts, Eötvös Loránd University (ELTE) Budapest, Institute of Art Theory and Media Studies; [bartslivi@gmail.com](mailto:bartslivi@gmail.com)*

This is an infographic poster in sketchnote-style on the history of Red esCTS meetings, featuring the main concerns, topics and conclusions of the meetings. The poster is based on the Red esCTS archives, so we invite all participants who have been to the meetings to add their own memories to the contents.

### **Conversations about STS at the Interstice**

*11.30-13.00, Thursday 8th June, room 1*

*Sara Bea, Meritxell Ramirez-i-Olle, Sara Peres*

The special session will revolve around the theme of STS at the Interstice. This will be exposed and explored through a multi-layered and multi-voiced dialogue about doing STS across disciplinary and national borderlands. We hope to ignite a collective and reflexive discussion on the affordances of STS as a translational knowledge-making practice that traverses and refigures multiple boundaries. (*See also abstracts for this session in p. 15*)

### **Estados Alterados: Un taller catartico-terapeutico para pensar el Estado de los STS**

*11.30-13.00, Thursday 8th June, room 3*

*Nizaiá Cassián, Tomás Sánchez Criado, Gonzalo Correa; [estadosalterados2017@gmail.com](mailto:estadosalterados2017@gmail.com)*

*Estados alterados* es una invitación a reflexionar cómo se ha pensado la cuestión del Estado desde los STS, cómo nos relacionamos con sus esencializaciones y desesencializaciones, las palabras e imágenes que ponemos en juego para hacerlos inteligibles, los métodos con que operamos y fabricamos distintos límites y topologías, lo dotamos de cuerpo o lo descorporeizamos. El taller consistirá en (1) una breve contextualización para luego (2) presentar distintos estados alterados que sirvan de material clínico para nuestra exploración. (3) Invitaremos a las participantes a reunirse en grupo para trabajar estas alteraciones (en formato collage, actuación, o la alteración que se haga disponible). Finalmente (4) cada grupo ensayará una

propuesta de catarsis colectiva, un modo de alterarse y relacionarse con esos estados alterados.

### **Participative Design of Social Robots by STS-b**

*14.30-16.30, Friday 9th June, room 2*

*Rodrigo de Oliveira Machado, [rodrigo.machado@uab.cat](mailto:rodrigo.machado@uab.cat), Universitat Autònoma de Barcelona. Mireia Faucha, [mireia.fauca@gmail.com](mailto:mireia.fauca@gmail.com), Universitat Autònoma de Barcelona. Núria Vallès-Peris, [nuria.valles@uab.cat](mailto:nuria.valles@uab.cat), Universitat Autònoma de Barcelona. Guillem Palà, [guillem.pala@uab.cat](mailto:guillem.pala@uab.cat), Universitat Autònoma de Barcelona. Miquel Domènech, [miquel.domenech@uab.cat](mailto:miquel.domenech@uab.cat).*

Uno de los retos más importantes que afrontan las experiencias de diseño participativo es la conjugación de las diferentes personas que en ellas participan, de sus saberes y de sus lenguajes. En este contexto no basta con “poner a dialogar” a los actores, ya que formas de hacer, identidades y expectativas a menudo resultan aparentemente inconmensurables. De hecho, son múltiples las fronteras que se hacen patentes en el momento de la relación y que no sólo tienen que ver con las disciplinas de las que provienen las personas participantes. No obstante, las experiencias de diseño participativo nos enseñan que es posible desarrollar procesos colaborativos gracias a la permeabilidad de unos límites que dejan de ser obstáculos y se convierten en oportunidades de interacción inesperada y creativa. Es por eso que consideramos interesante abrir un espacio donde preguntarse por esas dinámicas de conformación y cuestionamiento de fronteras.

Para hacerlo, en primer lugar, las personas integrantes del grupo de investigación (STS-b) introducirán una experiencia de diseño participativo de robots sociales. A continuación, a modo de taller, se invitará a las personas asistentes a identificar los espacios limítrofes y los comunes que se configuran en el proceso, mediante la presentación de ciertos elementos de carácter audiovisual. Para complementar el análisis, se dispondrán materiales heterogéneos, como pueden ser prototipos, notas de campo, dibujos o fotografías. Finalmente realizaremos una puesta en común del trabajo realizado, abriendo líneas de discusión focalizadas en la reflexión sobre cómo el concepto de frontera puede operar en nuestros análisis.

## **Oficina Orthopter-On. Cruzar a fronteira da identificação taxonomica de espécies**

*14.30-16.30, Friday 9th June, room 1*

*Eva Monteiro<sup>1\*</sup>, Jesus Rey-Rocha<sup>2</sup> & Maria Teresa Rebelo<sup>3</sup>; <sup>1</sup> Tagis – Centro de Conservação das Borboletas de Portugal; CESAM -Centro de Estudos do Ambiente e do Mar. Portugal. <sup>2</sup> Instituto de Filosofia, Centro de Ciencias Humanas y Sociales, Consejo Superior de Investigaciones Científicas. Espanha. <sup>3</sup> Faculdade de Ciências, Universidade de Lisboa; CESAM -Centro de Estudos do Ambiente e do Mar. Portugal. \* [evasmonteiro@gmail.com](mailto:evasmonteiro@gmail.com)*

Travar a atual taxa de perda da biodiversidade é o grande desafio da humanidade no sec. XXI. Para superá-lo é necessário contar com a participação comprometida da sociedade. Só protegemos o que conhecemos, mas muitas espécies estão ainda por descobrir. É por isso importante engajar a sociedade, não só na conservação da biodiversidade, como na produção de conhecimento sobre ela. Uma das bases da descoberta e da compreensão da biodiversidade é a identificação dos organismos que estão à nossa volta. Identificar uma espécie dá acesso ao conhecimento da sua biologia, ecologia, grau de ameaça, usos, benefícios para a sociedade, etc. Permite ainda vislumbrar a imensa diversidade de espécies do planeta e a variabilidade que existe entre elas. É também uma atividade lúdica e atrativa, que permite desempenhar tarefas pelas quais os humanos nutrem uma afinidade inata: a catalogação e o contacto com outras formas de vida. Na Oficina Orthopter-On convidamos os participantes no congresso e o público em geral a identificar 35 espécies de gafanhotos e grilos comuns em Portugal e Espanha, recorrendo a uma chave de identificação interativa e a uma coleção de espécimes preservados em resina. Depois, será promovido um debate sobre a contribuição das atividades de identificação na compreensão dos conceitos relacionados com a biodiversidade e na prática da sua conservação. Esta atividade foi desenvolvida em 2014/2015 e 2015/2016 com alunos portugueses e espanhóis de diferentes níveis de ensino e avaliada através de questionários. Os resultados preliminares deste estudo serão também debatidos com os participantes na oficina.

---