

ATACD

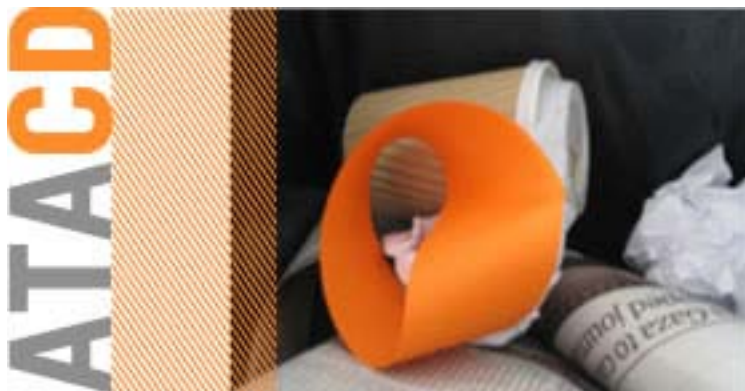
A topological approach to cultural dynamics

Programme and Abstracts

Changing Cultures: Cultures of Change
University of Barcelona, Barcelona
10-12 December 2009

Co-organised by:

Goldsmiths, University of London and University of Barcelona



Goldsmiths
UNIVERSITY OF LONDON



UNIVERSITAT DE BARCELONA



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Dear conference participants

It gives me great pleasure to welcome you to this conference, a culminating event for the research network, A Topological Approach to Cultural Dynamics (www.atacd.net).

This network is funded under the 'New and Emerging Science and Technology' (NEST) priority of the European Union Sixth Framework Programme (FP6), and brings together some 20 partners from a variety of disciplines, including sociology, psychology, philosophy, politics, mathematics, artificial intelligence, physics, digital media, all of whom are using topological thinking in their work. In a series of different activities – workshops, residencies and colloquia – we have worked together on developing a topological approach to the study of cultural dynamics.

A topological approach can be distinguished from both a typological and topographic approach. It proposes the study of cultural change as normal and immanent rather than exceptional and externally determined; cultures as constituted in relations rather than as having some essential properties; cultures as intensive, not extensive, that is, cultures are defined by their possibilities for change rather than their size or location.

A topological approach also provides a distinctive perspective on cultural predictability and innovation. Geometry has been understood as a perception of space that is to be actualized and repeated with certainty in the future. Topology, in contrast, offers an approach to the process of actualisation that is to do with possibilities rather than certainty. It offers a framework for the study of culture that is not to do with the measurement of fixed human properties and their extrapolation into the future but instead enables the problematization of events in terms of the potential they offer for change. It thus opens up a complex relation to the future. The potential value of such an approach for the public perception and management of cultural change is profound.

I am pleased to see an even wider range of disciplines represented at the conference, and hope that our discussion can acknowledge the differences between us productively as well as leading to some shared understandings.

The conference itself has many parts, including a graduate day, a cultural policy event, a public lecture, and is linked to an exhibition at Arts Santa Mònica. I would like to acknowledge the hard work and creativity of the ATACD partner and local organizer, Josep Perelló, in Barcelona and the other organizers of these various events, and gratefully acknowledge the support of a number of organizations.

Student Day: Beatrice Ferrera, Alessandra Marino, Università degli Studi di Napoli – L'Orientale, Carolin Gerlitz, Ann-Christina Lange, Goldsmiths, and Professor Steve Brown, Leicester University, with the support of Arts Santa Mònica

Topology, Innovation and Cultural Policy: Jaron Rowan, yProductions, with the support of Arts Santa Mònica

'Cultures of Change' Exhibition: Professor Josep Perelló, University of Barcelona and Pau Alsina, Arts Santa Mònica

Public lecture: with the support of Juan Insua, CCCB

University of Barcelona, for providing conference rooms and support.

I would also like to thank the network partners, whose contributions to the conference and the network have been many and various, and my colleagues at Goldsmiths, especially Jules Davidoff, Mariam Fraser, Matt Fuller, Scott Lash, Luciana Parisi, Nicholas Salazar, Robert Zimmer, and especially the project manager, Jasmina Bolfek-Radovani.

Celia Lury

Conference Programme

Thursday 10 December - Conference sessions, Faculty of Philosophy, University of Barcelona

Registration

8:30 hrs - 10:00 hrs Foyer, 4th floor

Refreshments

09:00 hrs - 10:00 hrs Foyer, 4th floor

Introduction and Plenary session

10:00 hrs - 12:00 hrs ROOM Aula Magna Chair: Celia Lury

Self-Organization and emergence in social systems. Modelling the co-evolution of social environments and cooperative behaviours

Dirk Helbing

Evolution of Technology Innovation Networks

Sergi Valverde

Parallel session 1b: Making publics

12:00 hrs - 13:30 hrs ROOM 402 Chair: Ute Tellman

1b1 Decolonizing Culture, Engaging Plurinationalism: exploring Bolivia's new education reform

Jesse Strauss

1b2 Public sphere: a systems theoretic approach. Interrelation between conventional news media and political blogosphere

Evgeniya Boklage

1b3 Citizen Management of Technology: from open content to open networks with guifi.net.

Yann Bona Beauvois, Roger Baig Viñas

Parallel session 1c: After Euclid: technologies of prediction

12:00 hrs - 13:30 hrs ROOM Aula Magna Chair: Fabian Muniesa

1c1 Expanding the frame on carbon visualisation: topologies of (ir)relevance

Noortje Marres

1c2 Ironic Spatiotemporalities: HIV, PrEPs and Topology

Mike Michael, Marsha Rosengarten

1c3 Topology, Economy, Crisis

Lisa Adkins

Parallel session 1d: Networks, politics and publics

12:00 hrs - 13:30 hrs ROOM Sala Gran Chair: Joe Deville

- 1d1 Wikipedia as a Space of Controversy
Sabine Niederer
- 1d2 Comparing Google to Google: Repurposing the Engine to Study Local Cultures
Esther Weltevrede
- 1d3 Archived Publics? On Methods for Reconstructing Context with the Internet Archive
Michael Stevenson

Lunch

13:30 hrs - 14:45 hrs

Parallel session 2a: Topologies of social change - Urban spaces and design

14:45 hrs - 16:45 hrs ROOM 401 Chair: Penny Harvey

- 2a1 Out of the Blue: topographies of Olympic development in the East End of London
Gillian Evans
- 2a2 Spaced-Out in the City: Homeomorphic topologies and the empty set
Damian O'Doherty
- 2a3 Transforming Manchester: On the Topological Promises of Digital Simulation and Ethnographic Description
Hannah Knox
- 2a4 Working on ideas first: an ethnography of design processes in Milan (Italy).
Andrea Gaspar

Parallel session 2b: Movement, migration and territory

14:45 hrs - 16:45 hrs ROOM 402 Chair: Rosi Braidotti

- 2b1 Identification Topologies
Evelyn Ruppert
- 2b2 Borderscapes of Differential Inclusion. Challenging the epistemic borders of topology
Sandro Mezzadra
- 2b3 Mapping topological deformations of space as diffused migrant territories
Nishat Awan, Phillip Langley
- 2b4 Social movements as actor-networks: a topological approach to social change.
Israel Rodriguez-Giralt

Parallel session 2c: Innovation, organisation and culture industries

14:45 hrs - 16:45 hrs ROOM Aula Magna Chair: Alex Adriaansens

- 2c1 Where mass media and social production meet: Change and continuity in self-produced audiovisual projects
Antoni Roig
- 2c2 Social production and consumption in networks: Do we have a new means of

- economic organisation?
George - Michael Klimis
- 2c3 Networks in culture: concepts versus practices
Aleksandra Uzelac, Jaka Primorac
- 2c4 A Topological Approach to the Study of Social Innovation and Design
Ann-Christina Lange

Parallel session 2d: Continuity and change

14:45 hrs - 16:15 hrs ROOM Sala Gran

Chair: Yannis Scarpelos

- 2d1 The discursive manifestation of past and present through the spatial organisation of changing rituals
Reza Masoudi Nejad
- 2d2 Where is the Underground Today? A Question of Cultural Continuity in Russia.
Anna Ljunggren
- 2d3 The Engaged Humanities
Rick Dolphijn, Iris van der Tuin

Conference reception

18:00 hrs - 19:00 hrs Palau March

Exhibition Opening and Plenary session

19:15 hrs - 20:15 hrs Arts Santa Monica

Introduction by Josep Perello, Joan Manuel Tresserras (*Minister of Culture and the Media of the Catalan Government*) and **Vicenç Altaió** (*Director of Arts Santa Mònica*)

Can robots create their own language?
Luc Steels

Friday 11 December - Conference sessions, Faculty of Philosophy, University of Barcelona

Registration desk opens

08:30 hrs Foyer, 4th floor

Parallel session 3a: Performativity, relations and indicators

09:30 hrs - 11:30 hrs **ROOM 401** **Chair: Lisa Adkins**

- 3a1 What do you think an indicator is, anyway?
Fabian Muniesa
- 3a2 Cultural Relationality outside the Frame?
David Oswell
- 3a3 Concern and Cutting: Thinking though the critique of performativity
Vikki Bell
- 3a4 Morphogenesis: Whitehead's concrescence, Alexander's unfolding, and Serres' noise.
Xin Wei Sha

Parallel session 3b: Thinking networks

09:30 hrs - 11:30 hrs **ROOM Sala Gran** **Chair: Matt Fuller**

- 3b1 Stacked Networks Approach in Modeling Sociological Agents as Combination of Non-Determined Stochastic Automata
Ivan Tchalakov, Peter Kopanov, Donka Keskinova
- 3b2 Social network influences on reproductive decision-making - an evolutionary approach
Mace Ruth, Heidi Colleran
- 3b3 Collective dynamics of social annotation
Vittorio Loreto
- 3b4 Privacy + association: selecting work venues with space + time no longer fixed
Ziona Strelitz, William Fawcett

Parallel session 3c: A topological approach to psychology?

09:30 hrs - 11:30 hrs **ROOM Aula Magna** **Chair: Mike Michael**

- 3c1 Varieties of radical empiricism: James/Bergson
Steve Brown
- 3c2 Deep empiricism for a Psychology in the Whiteheadian Key of Life
Paul Stenner
- 3c3 Around the day in 80 Worlds: Deleuze, Suggestibility and the Matter of Application
Johanna Motzkau

Parallel session 3d: Space, creativity and culture

09:30 hrs - 11:30 hrs ROOM 402

Chair: Emilio Luque

- 3d1 From the Lab to the Factory: Bridging creators and industry
Ruth Pagès, Gemma San Cornelio, Antoni Roig
- 3d2 City of Mobility and Mobile Networking
Tatjana Todorovic
- 3d3 The Impact of Built Form on Location Decisions in Creative Industries
René Barownick, Noam Andrews
- 3d4 Tools for Charting Cultural Networks: GIS, Ethnography and Cultural Research - A Case Study
Chris Brennan-Horley, Susan Luckman

Refreshments

11:30 hrs - 12:00 hrs Foyer, 4th floor

Plenary session

12:00 hrs - 13:30 hrs ROOM Aula Magna

Chair: Fabian Muniesa

- Territorial integrity in precarious places: the power, plasticity, and provocation of infrastructural systems
Penelope Harvey
- Forensic Architecture
Eyal Weizman

Lunch

13:30 hrs - 14:45 hrs

Parallel session 4a: Global topologies - global futures

14:45 hrs - 16:30 hrs ROOM Sala Gran

Chair: Ute Tellman and Sven Opitz

- This session starts with a 15 min introduction by Sven Opitz and Ute Tellman followed by presentations.*
- 4a1 Global Extermination. The End of Man as a Biopolitical Phantasy.
Eva Horn
- 4a2 Aesthetic technologies: Imagining Catastrophic Futures
Claudia Aradau, Rens van Munster
- 4a3 Global Panics: Topology in Discourses of the Financial Crisis
Urs Staeheli

Parallel session 4b: Unfolding postcolonial topologies: bo(u)nds and mutations

14:45 hrs - 16:45 hrs ROOM 401

Chair: Silvana Carotenuto

- 4b1 Mereotopologies of Dance and Culture
Stamatia Portanova, Annalisa Piccirillo
- 4b2 Unfolding Otherness. Differentiating Difference in Lost.
Enrica Picarelli, Valerio Rinaldi
- 4b3 Topological Border walls: Indian Visual Art and Political Graffiti
alessandra marino, Maria Domenica Arcuri
- 4b4 'Affective topology' between Postcolonial Digital Art and Urban Music
Beatrice Ferrara, Michaela Quadraro

Parallel session 4c: Networks, politics and agents

14:45 hrs - 16:45 hrs ROOM Aula Magna

Chair: Richard Rogers

- 4c1 Redundancy as a resistance discourse
Josep Perello, Gennaro Ascione
- 4c2 Cognitive automata and the topology of the social web
Tiziana Terranova
- 4c3 Error Contagion: Tardean Network Hypnosis and Collective Culpability as Processes of Cultural Change
Tony Sampson
- 4c4 The Image of Networks
Yuk Hui

Refreshments

16:45 hrs - 17:15 hrs

Public event: Taking networks literally

18:00 - 20:00

CCCB

Chair: Tiziana Terranova

Advisable Techniques for Super-Hubs
Matthew Fuller

What you see is what you get?
Alex Galloway

Studying the Web with the Web?
Richard Rogers

Conference dinner

20:30 hrs

Attic Restaurant

Saturday 12 December - Conference sessions, Faculty of Philosophy

Registration desk opens

08:30 hrs Foyer, 4th floor

Plenary session

10:15 hrs - 11:30 hrs ROOM Aula Magna Chair: Urs Staeheli
From ontology to multiplicity
Scott Lash

Refreshments

11:30 hrs -12:00 hrs Canteen

Parallel session 5a: Media ecologies

12:00 hrs - 13:30 hrs ROOM 401 Chair: David Oswell

5a1 From the object to the system: art-perception and evolution
Raquel Paricio, Juan Manuel Moreno

5a2 Media Ecologies of Animal Intensities, or, Ecosophical Probe Heads
Jussi Parikka

5a3 Evolution as biopolitics: Ethics of control and change in Greg Bear's science fiction
Tom Idema

Parallel session 5b: Mathematics and culture

12:00 hrs - 13:30 hrs ROOM 402 Chair: Ivan Tchalakov

5b1 Constraints and extremes, limits and boundaries: A mathematical perspective on social systems
Josep Perelló

5b2 Spontaneous vs. imposed globalization in a model of cultural dynamics
Juan Carlos Gonzalez Avella, Mario Consenza, Victor M. Eguiluz, Maxi San Miguel

5b3 On the modelling of financial time series
Mihail Zervos

Parallel session 5c: Borders and boundaries

12:00 hrs - 13:30 hrs ROOM Sala Gran Chair: Urs Staeheli

5c1 Local governance and mining: a boundary problem in a complex system.
Amma Buckley

- 5c2 Identifying Borders: Erasing Identities
Nikola Petkovic
- 5c3 Border Spaces: Challenging the City
Sara Saleri

Parallel session 5d: Control, Communication and terror

- 12:00 hrs - 13:30 hrs ROOM Aula Magna Chair: Tiziana Terranova**
- 5d1 The labyrinth of the continuum: topological control and becoming
Luciana Parisi
- 5d2 The terror memos: topologies of official pathology
Karen Petroski
- 5d3 The safety of the common space; Foucault, Nancy and Funny Games U.S.
Samuel Kirwan

Parallel session 5e: Change, language and books

- 12:00 hrs - 13:30 hrs ROOM 410 Chair: Ruth Mace**
- 5e1 Media change and cultural change? Quantitative and generic questions concerning printed French Bibles from the 15th century.
Margriet Hoogvliet
- 5e2 The universal fractal structure of literary texts
Alvaro Corral, Ramon Ferrer-i-Cancho, Gemma Boleda, Albert Diaz-Guilera
- 5e3 Understanding change through laws of language
Ramon Ferrer-i-Cancho, Nuria Forns, David Lusseau, Silvia M.G. Caldeira

Lunch

13:30 hrs - 14:45 hrs

Parallel session 6a: Cultural topologies: performance and space-time

- 14:45 hrs - 16:15 hrs ROOM Sala Gran Chair: Brian Rotman**
- 6a1 Cinematic transfigurations
Pasi Valiaho
- 6a2 Form and per(form): rehearsals for a topological theatre
Nicolas Salazar-Sutil
- 6a3 Auditory topologies, relationality and the diasporic propagation of culture
Julian Henriques

Parallel session 6b: Learning agents

- 14:45 hrs- 16:15 hrs ROOM Aula Magna Chair: Ivan Tchalakov**
- 6b1 Liberals and conservatives: worldviews in a society of learning agents
Nestor Caticha, Renato Vicente

- 6b2 New topological approaches to the study of cognition, computation and culture
Sonia Matos
- 6b3 Predator-prey model for stock market fluctuations
Miquel Montero

Parallel session 6c: Money and markets

14:45 hrs - 16:15 hrs ROOM 401

Chair: Fabian Muniesa

- 6c1 'I think I shouldn't be allowed around these things': the uncertainties of consumer credit calculations
Joe Deville
- 6c2 Changing money: opportunities and challenges in a context of diverse markets
Lucia del Moral Espin
- 6c3 Modeling markets at person level
Esteban Moro, Josep Perelló

Parallel session 6d: Interactivity and entanglement

14:45 hrs - 16:15 hrs ROOM 402

Chair: Stamatia Portanova

- 6d1 Entanglement as a medial practice
Susan Schuppli
- 6d2 Made by many. Tracing and mapping the affective topologies of brands.
Carolin Gerlitz
- 6d3 Laboratory interactivity: The rethinking of science museums
Chinfang Chang

Parallel session 6e: Lines, design and architecture

14:45 hrs - 16:15 hrs ROOM 410

Chair: Yannis Scarpelos

- 6e1 Method in visual research
Dag Petersson
- 6e2 The in-between space
Ana Leonor Madeira Rodrigues
- 6e3 Time and folds in architecture: a topological interface for designing the built environment
Emilio Luque

Refreshments

16:15 hrs - 16:45 hrs Canteen

Plenary session

16:45 hrs - 18:45 hrs Aula Magna

Chair: Celia Lury

On empirical transcendental groundings or: against methodological nationalism

Rosi Braidotti

Topology, algebra, diagrams

Brian Rotman

Topology, Innovation and Cultural Policy

17:30 hrs - 20:30 hrs Arts Santa Monica

For an event description and programme please see relevant section in this book.

Conference Posters

Posters

10 December to 12 December Foyer, 4th floor

- | | |
|----|---|
| P1 | Real Virtuality of JJ. Gibson
<i>Andrej Radman</i> |
| P2 | Exhausted Disclosures – (E/e)xistential Growth Through Film and Topology
<i>John Ferrara</i> |
| P3 | Psybody design_Alternative design approaches, without being design themselves
<i>OtherehtO</i> |

Topology, Innovation and Cultural Policy

Arts Santa Mònica, Saturday 12 December, from 17:30 hrs

Organised by: *YProductions in collaboration with Goldsmiths and University of Barcelona*

In recent years the concept of innovation has been introduced into the cultural sphere, importing some of its meaning from management and economic theory but also acquiring a new dimension as a consequence of the peculiarities and singularities of the sphere. An alternative approach to innovation has emerged in the last decade that presumes that the cultural sphere is a space in which knowledge is produced in processes of collaboration. This collaboration takes place in spaces in which agents are actively connected to each other, in which public institutions, universities, cultural agents and private firms create virtuous networks aimed at sharing and transferring knowledge, ideas and objects between each other. Innovation is understood as a context rather than as an output, and is to be found in the creative basins that lie at the heart of the city's life. The role of policy-making agencies seeking to support this form of innovation is unclear; how can policy promote emergence rather than designing top-down cultural schemes? This form of innovation is inspired by movements such as free/open software, and encourages forms of cooperation as opposed to competition. It implies self-organization, encourages new ways of measuring value and gives autonomy to cultural agents. All these changes present important challenges to policy makers who are used to defining culture as a static element or completed work that needs to be preserved and protected. In this new scenario, the aim is to maximize the circulation of objects and ideas in ways that enable collaboration.

This panel will address the problems that come from trying to apply this dynamic view of culture to the design of concrete measures or institutional structures aimed at managing culture. Cultural policy has traditionally operated with a notion of culture understood as a set of closed artifacts. Many new agencies are challenging this notion and are designing policies aimed at reinforcing cultural networks, promoting the emergent properties of cultural production and designing complex spaces of interaction between institutions, technologies and cultural producers. The following debate aims to analyze the extent in which these experiments can help to redefine cultural policy and how can these ideas be transformed into specific measures.

This half-day event will run for 3 hours, after a brief presentation carried out by YProductions each speaker will do a 20 minute presentation followed by a 15 minutes Q&A. The event will conclude with a 30 minute round table with all the speakers.

Speakers include:

Jose Luis de Vicente (Barcelona, Spain)
Ramon Sanguesa (Barcelona, Spain)
Monika Fleischmann (Bonn, Germany)
Ronaldo Lemos (Rio de Janeiro, Brazil)

Speaker Biographies

Monika Fleischmann (<http://fleischmann-strauss.de/monika-fleischmann.html>) is a German research artist and scientist, scenographer and curator. She is a Professor of Media Art & Media Theory at Fraunhofer IAIS and the University of Applied Sciences in Bremen. Since 1987 she has been founder and director of research labs in Media Art, Interface Design & eCulture. Awarded as a pioneer of media art at Ars Electronica in Linz, Austria, she produced since fundamental works of interactive art, such as "Cyber City Berlin", "Home of the Brain", "Liquid Views", "Rigid Waves", "Virtual Balance" or "Media Flow" in partnership with research architect Wolfgang Strauss. Award-winning projects such as the eTeaching Platform and the "netzspannung.org" archive for Media Art or the patented bio-sensory interface "PointScreen" for gestural interaction, the "semantic map" or the "interactive poster" are among the "100 Products of the Future" categorized as "groundbreaking ideas that will change our lives" (T.W.Hänsch 2007). With the MARS Exploratory Media Lab, Fleischmann has established one of the internationally recognized laboratories for media art and technology.

Ronaldo Lemos is the director of the Center for Technology and Society at the Fundação Getúlio Vargas (FGV) School of Law in Rio de Janeiro. Dr. Lemos is the head professor of Intellectual Property law at FGV Law School. He is also the director of the Creative Commons Brazil and board member (formerly chair) of iCommons. He has earned his LL.B. and LL.D. from the University of Sao Paulo, and his LL.M. from Harvard Law School. He is the author of three books, including "Direito, Tecnologia e Cultura", published by FGV Press, 2005.

He coordinates various projects, such as the Cultura Livre project, and the Open Business Project, an international initiative taking place in Brazil, Nigeria, Mexico, Colombia, Argentina, South Africa and the UK. He is one of the creators of Overmundo, which received the Golden Nica prize at the Prix Ars Electronica 2007. He is also curator of the TIM Festival, and writes weekly to Folha de Sao Paulo and monthly to Trip Magazine.

Ramon Sangüesa is the founder and current director for innovation at Citilab (<http://citilab.eu>). He holds a Phd in computing (Artificial Intelligence) by the Universidad Politécnica de Catalunya, and holds an MA in Scientific Communication. He teaches at the Innovation in Organizations Centre at the Columbia University and he is an Associate Fellow at the Strategic Innovation Lab in the Ontario School of Art and Design.

In 2007 he opens Citilab from which he has promoted several initiatives aimed at triggering new forms of citizen lead innovation as UrbanLabs and the international project Breakout. He has also worked on the "Social Innovation Spaces" project along the Columbia University exploring the possible outcomes of Citilab as an innovative organization.

José Luis de Vicente is a cultural researcher, curator and journalist. He works in the context of digital media, new media art and innovation in culture and design. His research includes areas such as information visualization, infrastructures in a net society, games and recreational objects and the archeology of digital culture.

Some of his more recent projects are the exhibition Arcadia: Games from a culture of innovation at Laboral Centro de Arte y Creación Industrial in Gijón. He is director of the Visualizar program in Medialab Prado, Madrid.

He has been artistic director of OFF festival working on software aesthetics and deputy manager of ArtFutura, the most important festival in Spain on art and technology . He has also curator for the Sonar music and art festival in Barcelona.

YProductions is a Barcelona based company that since 2003 has worked and developed production, research and management projects in the cultural field. They have worked on new forms of cultural labor, creativity and the city or the growth of the creative industries. In June 2009 the published the book "Innovación en Cultura: Una aproximación crítica a la genealogía y usos del concepto" in which they analyze different ways of conceiving innovation in culture. For more detailed information on their projects see www.ypsites.net

Plenary Presentations

Plenary Session 1 – Introduction
Plenary Session 1 – PL1
Thursday, 1 Dec
10.00-12.00 hrs
Location: Aula Magna

Topology: the engaging of multiplicity

Celia Lury

Goldsmiths, University of London

'It was a decisive event when the mathematician Riemann uprooted the multiple from its predicate state and made it a noun, 'multiplicity'. It marked the end of dialectics and the beginning of a typology and topology of multiplicities.' Gilles Deleuze and Felix Guattari To introduce this conference I want to explore the implications of the decisive event described here. I aim to do this, not by trying to explain the mathematics of multiplicity in its own terms, but by finding ways to talk about the mathematics of this decisive event that reveal its sociological significance for cultures of change. A first point relates to space, a second to number, and a third to problems, or rather the relations between problems and solutions. In this way, I hope to explore what is to be gained – and what might be lost – in understanding changing cultures in terms of a typology and topology of multiplicities across a range of disciplines.

Biography

Professor Celia Lury

Sociology Department, Goldsmiths

Celia Lury is a Professor of Sociology at Goldsmiths, University of London and is director of the ATACD network, A Topological Approach to Cultural Dynamics. She has published widely on feminism, cultural theory, branding and the global culture industry.

Publications include *Global Culture Industry: The Mediation of Things*, with Scott Lash, Polity, 2007, and *Branding: The Logos of the Global Economy*, Routledge, 2004.

Plenary Session 1 – PL1

Thursday, 1 Dec

10.00-12.00 hrs

Location: Aula Magna

Self-Organization and emergence in social systems. Modeling the coevolution of social environments and cooperative behaviours

Dirk Helbing

ETH Zurich, Zurich, Switzerland

We demonstrate with computational simulation scenarios how social environment and individual behavior coevolve and how fundamentally different macro-effects emerge, when separate micro-mechanisms are combined. Our framework considers social interactions in prisoner's dilemmas, stag hunt, chicken or coordination games among agents on a spatial grid. Neither imitation of more successful strategies nor the migration to more favorable locations can promote cooperation in prisoner's dilemmas. However, when both microscopic mechanisms are combined, they cause the segregation of cooperators and defectors, and the self-organization of cooperative clusters on the macro-level. These are robust to randomness, while cooperation may break down in a "globalized society". Results are discussed regarding their implications for the evolution of norms and institutions.

Biography

Prof. Dr. Dirk Helbing

Chair of Sociology, in particular of Modeling and Simulation

ETH Zürich

Dirk Helbing studied Physics and Mathematics, but was always interested in other fields of science as well. In 2000, he became Professor and Managing Director of the Institute for Transport & Economics at Dresden University of Technology, and in 2007 he was appointed Professor of Sociology, in particular of Modeling and Simulation, at ETH Zürich. Since 2008, he has been an elected member of the German Academy of Sciences "Leopoldina".

Professor Helbing is also the chairman of the newly established ETH Competence Center "Coping with Crises in Complex Socio-Economic Systems", which will develop computer models of crisis scenarios and finally provide decision support for politics and economy.

Plenary Session 1 - PL2
Thursday, 1 Dec
10.00-12.00 hrs
Location: Sala Magna

Evolution of Technology Innovation Networks

Sergi Valverde
University Pompeu Fabra, Spain

The study of cultural diversity from an evolutionary perspective offers many advantages but some interesting challenges as well. But how tree-like is cultural evolution? Can we understand the pattern of variation and the diversity of human inventions using a Darwinian approach? Recently, we have investigated these questions using a complex network approach. From the patent citation network of the United States Patent and Trademark Office (USPTO), we can trace the specific sequence of intermediate steps towards any (patented) invention. And, unlike phylogenetic trees, the patent network is not tree-like: there is vertical, horizontal and oblique inheritance and borrowing is widespread. Nature is far more limited when evolving organisms. In my talk, we will review the main results of the network analysis of patent evolution and discuss its implications for a more general theory of artificial and natural evolution.

Biography
Dr Sergi Valverde
University Pompeu Fabra, Spain

Sergi Valverde is a computer scientist with a PhD in Applied Physics by the Polytechnical University of Catalonia (UPC). He is now a post-doc in the Complex Systems Lab and assistant professor in the University Pompeu Fabra (both). His main field of expertise is complex networks (a branch of Statistical Physics), where he has specialized in the study of the evolution and dynamics of different natural and artificial networks.

Plenary Session 2 - PL3

Thursday, 10 Dec

18.00-20.00 hrs

Location: Arts Santa Monica

Can robots create their own language?

Luc

¹SONY CSL, Paris, France, ²University of Brussels (VUB AI Lab), Brussels, Belgium

I will describe experiments we have been doing over the past decade that try to see under what circumstances and by what mechanisms physical humanoid robots could self-organize a symbolic communication system without human intervention. This challenge raises tremendously difficult problems because we need to understand and artificially simulate visual perception, conceptualisation of reality for language, interaction scripts, and language processing. We need to understand not only how robots can learn concepts and language from others but also how they can extend their existing language system with new words or constructions to express new concepts and talk about situations they have never encountered. Then we need to orchestrate the coordination between the languages and concepts that each robot constructs so that a coherent shared language effectively emerges.

Despite the magnitude of the challenge, I will show that research has advanced tremendously. Concretely, I will show demonstrations of robots self-organizing a communication system for naming individuals, for expressing spatial relations, including those involving perspective reversal, and for commanding actions which requires a mirror system to recognise actions of others in terms of a self body-model.

Biography

Professor Luc Steels

Director of the Artificial Intelligence Laboratory of the Vrije Universiteit Brussel and the SONY Computer Science Laboratory in Paris

Luc Steels is professor of Computer Science (at the moment part-time) at the Free University of Brussels (VUB), founder and director (from 1983) of the VUB Artificial Intelligence Laboratory and co-founder and chairman (from 1990 until 1995) of the VUB Computer Science Department (Faculty of Sciences).

Professor Steels' scientific research interests cover the whole field of artificial intelligence, including natural language, vision, robot behavior, learning, cognitive architecture, and knowledge representation. At the moment his focus is on dialogs for humanoid robots and fundamental research into the origins of language and meaning. Current work focuses on developing the foundations of semiotic dynamics and on fluid construction grammars.

Plenary Session 3 – PL4
Friday, 11 Dec
12.00-13.30 hrs
Location: Aula Magna

Territorial integrity in precarious places: the power, plasticity, and provocation of infrastructural systems

Penelope Harvey

University of Manchester, Manchester, United Kingdom

The paper asks how material infrastructures of state produce 'territorial integrity'. Drawing from ethnographic research of the Peruvian road system, I look in particular at how a fragile, but determinedly neo-liberal post-colonial state exemplifies tensions between the closure of territorializing practices and the openness of capital flows. A descriptive focus on routine disruptions to such networks (road-blocks, landslides, floods) orients attention to the production of internal borders as locations where state force takes form. The aim is to explore ways in which the infrastructures enact a variable openness - or tension between flow and containment - such that the network can simultaneously become a locus of territorial state power, of emergent spatial plasticity, and of a minority territorial politics which refuses the terms of segmented geometric space.

Biography

Professor Penelope Harvey

Social Anthropology

University of Manchester

Professor Harvey's research interests include: language, politics, gender, history, visual anthropology, and the anthropology of technology. Her regional specialisation is in South America and Europe, and she has conducted extensive fieldwork in the Peruvian Andes and Spain.

Recent publications include:

Harvey, P. (1996) *Hybrids of Modernity: Anthropology, the Nation State and the Universal Exhibition*, Routledge, London

Wade, P., Edwards, J., Harvey, P. (2009) *Technologized Images, Technologized Bodies*, Berghahn, Oxford

Wade, P., Edwards, J., Harvey, P. (2007) *Anthropology and Science: Epistemologies in Practice*, Berg, Oxford

Plenary Session 3 - PL5
Friday, 11 Dec
12.00-13.30 hrs
Location: Sala Magna

Forensic Architecture
Eyal Weizman

Abstract tbc.

Biography

Dr Eyal Weizman

Director of Centre of Research Architecture
Goldsmiths, University of London

Eyal Weizman studied architecture at the Architectural Association in London and completed his PhD at the London Consortium, Birkbeck College. He was Professor of Architecture at the Academy of Fine Arts in Vienna. His work includes buildings and stage sets in Israel/Palestine and Europe. Dr Weizman works with a variety of NGOs and human rights groups in Israel/Palestine. He co-curated the exhibition A Civilian Occupation, The Politics of Israeli Architecture, and co-edited the publication of the same title. His books include Hollow Land [Verso Books, 2007], A Civilian Occupation [Verso Books, 2003], and many articles in journals, magazines and edited books. Dr Weizman is the recipient of the James Stirling Memorial Lecture Prize for 2006-2007.

Plenary Session 4 – PL9
Saturday, 12 Dec
09.30-11.30 hrs
Location: Aula Magna

From ontology to multiplicity

Scott Lash

Abstract tbc.

Biography

Professor Scott Lash

Director of the Centre for Cultural Studies
Goldsmiths, University of London

Professor Scott Lash's research interests are social and cultural theory, information society, multimedia and urban studies. Among his recent publications are (2007) with C. Lury, *Global Culture Industry: The Mediation of Things*, Cambridge: Polity, (2002) edited with M. Featherstone, *Recognition and Difference: Politics, Identity, Multiculture*, London: Sage, (2002) *Critique of Information*, London: Sage and (1999) *Another Modernity, A Different Rationality*, Oxford: Blackwell.

Plenary Session 5 – PL10
Saturday, 12 Dec
16:45 – 18:45 hrs
Location: Aula Magna

On empirical transcendental groundings or: against methodological nationalism

Rosi Braidotti

Utrecht University, Utrecht, Netherlands

This paper explores the methodological advantages of an immanent ontology of the subject that is based on both material and vital principles. The empirical transcendental grounding of the subject also assumes non-unitary or nomadic structures and complex or multi-layered relationality. It moves accordingly beyond identitarian categories. This concept challenges the traditional equation of the subject with rational consciousness, of knowledge with transcendental reductions and that also resists the linear vision of time. The paper argues that this vision of a collectively assembled, externally-related and multi-layered subject that acts in a vital time-continuum clashes with the established view of the European subject of scientific knowledge. Philosophical 'European-ness' has made European science into the symbol of universal self-consciousness, that is to say the alleged universalizing powers of self-reflexive and self-correcting transcendental reason. This claim lies at the heart of the methodological nationalism or conceptual euro-centrism which the paper targets as one of the key issues in contemporary epistemology and knowledge production.

Biography

Professor Rosi Braidotti

Distinguished Professor in the Humanities, Director of Centre for the Humanities
University of Utrecht

Rosi Braidotti is Distinguished Professor in the Humanities of Utrecht University and founding Director of the Centre for the Humanities at Utrecht since 2007. For the previous fifteen years, she was the founding professor of Gender Studies in the Humanities at Utrecht and served as the first scientific director of the Netherlands Research School of Women's Studies.

Professor Rosi Braidotti's research and writing largely engages feminist philosophy and cultural studies/studies of popular culture. She is especially interested in poststructuralism and psychoanalysis, theories of sexual difference and the history of feminist ideas. Her research focuses on the work of Gilles Deleuze and Luce Irigaray.

Plenary Session 5 – PL11
Topology, Algebra, Diagrams

Brian Rotman

The Ohio State University, Columbus, United States

What are the tools, techniques and artifacts of topology? What kinds of mathematical language - symbolic/syntactical vocabulary, depictive/diagrammatic means - are available and how appropriate are they to the project of deploying topology to articulate and theorize cultural change and transformation? I present a two-fold response to these questions. First, by noting the relevance of a distinction within topology itself: namely, differential topology, which understands change and movement within the horizons of calculus, as distinct from algebraic topology's less restricted notion of topological spaces and their transformations. Second, by questioning the set-theoretical understanding of mathematical entities that gave birth to the idea of a topological space and which subsequently dominated the presentation of mathematics for the better part of the 20th century. Specifically, I direct attention to the (post set-theoretical) concept of a category at the heart of contemporary mathematics' theoretical/pragmatic understanding of itself, not least of topological transformations and their intimate connections to algebra.

Biography

Professor Brian Rotman

Comparative Studies

The Ohio State University, United States

Professor Brian Rotman is interested in cultural studies of mathematics, particularly in how signs (linguistic, pictorial, symbolic, gestural) achieve their discursive effects and how mathematical inscriptional practices facilitate and alter human consciousness.

Professor Rotman is the author of several books, including *Signifying Nothing: the Semiotics of Zero* (UK: Macmillan, 1987; 1993), *Ad Infinitum...the Ghost in Turing's Machine: Taking God out of Mathematics and Putting the Body Back In* (Stanford University Press, 1998), and *Mathematics as Sign: Writing, Imagining, Counting* (Stanford University Press, 2000). His most recent book is *Becoming Beside Ourselves: The Alphabet, Ghosts and Distributed Human Being*.

Public event “Taking Networks Literally”

Friday, 11 Dec

18:00-20:00 hrs

Location: CCCB (Centre for Contemporary Culture of Barcelona)

PL6

Advisable Techniques for Super-Hubs

Matthew Fuller

Goldsmiths, University of London, London, United Kingdom

This presentation will work on the question of a potential topological approach to cultural development through the perspective of Evil Media. This is an articulation of media studies that I am currently developing with Andrew Goffey. Evil Media emphasises the use of power in relation to the often invisible forms of media operative in contemporary computational and networked digital media. We work with corporate software such as workflow algorithms, recommendation systems, and decision support systems and with other techniques such as sophistry and persuasion. Evil Media calls upon the precursor work of tactically engaged thinkers such as Schopenhauer, Nietzsche, Machiavelli and Gracian amongst others to develop a series of stratagems which may be operationalised in database-driven social formations, policing, network analysis and management. The approach offers means to work with variability and invariability of form in organisation at various scales taking the micropolitics of technique into particular account. A number of these stratagems with particular relevance to topological thinking will be proposed.

Biography

Professor Matthew Fuller

Centre for Cultural Studies

Goldsmiths, University of London

Matthew Fuller is David Gee Reader in Digital Media at the Centre for Cultural Studies, Goldsmiths College, University of London. He is the author of *Media Ecologies: Materialist Energies in Art and Technoculture* (MIT Press, 2005) and *Behind the Blip: Essays on the Culture of Software*.

PL7

What you see is what you get?

Alex Galloway

New York University, New York, United States

What is a network and what can a network do? Can a network be an archive, and if so how does this change our very notion of the archive? This talk will describe the specific mode of mediation that is appropriate to networks, while at the same time differentiating it from two more commonly used modes, hermeneutics and immanence. Three divine forms embody these three modes of mediation: Hermes for hermeneutics, Iris for immanence, and the Furies for networks. The network mode of mediation is further defined via reference to three principles: the anti-hermeneutic principle, the principle of the occult, and the principle of recuperation.

Biography

Professor Alex Galloway

Department of Media, Culture, and Communication
New York University

Alexander R. Galloway is an author and programmer. He is a founding member of the software collective RSG and creator of the Carnivore and Kriegspiel projects. The New York Times recently described his work as "conceptually sharp, visually compelling and completely attuned to the political moment." Galloway is the author of *Protocol: How Control Exists After Decentralization* (MIT, 2004), *Gaming: Essays on Algorithmic Culture* (Minnesota, 2006), and a new book co-written with Eugene Thacker called *The Exploit: A Theory of Networks* (Minnesota, 2007). He teaches at New York University.

PL8

Studying the Web with the Web?

Richard Rogers

University of Amsterdam, Amsterdam, Netherlands

We look at Google results and see society, instead of Google. That is a shorthand way of saying that we see institutions and issues in the ranked lists that are returned in the search results. Query the word rights in Google.com and you are returned with the top Websites in the English-language space doing rights, in a variety of ways. You can also see which rights types are higher than others. For example, LGBT rights appear in the top ten of Google.com, but not in Google.fr, where youth rights are much higher.

But the question that is often asked is, where does social research end, and Google studies begin? Isn't it Google that determines the rankings? Surely Google has more to do with the hierarchies than societal dynamics. Can Google ever be removed from the picture when one is using it to perform research? These questions are of course classic ones more generally about the possibility of ever being able to isolate phenomena dependent on a context for them to exist. However, this question should also be put to Web studies more generally. Can one only study the Web with the Web?

The research projects presented are attempts at a Web studies, where the devices themselves are a part of the analysis, and one is always aware of the significance of the question of where Google studies ends, and social research with Google begins. It is a question and approach that also may be applied to other devices as Twitter, Wikipedia and the Internet archive.

Biography

Professor Richard Rogers

Professor of Media and Culture

University of Amsterdam

Prof. Richard Rogers is a Web epistemologist, an area of study where the main claim is that the Web is a knowledge culture distinct from other media. The most well-known tool Rogers has developed with his colleagues is the Issue Crawler, a server-side Web crawler, co-link machine and graph visualizer. Professor Rogers and colleagues also developed the Election Issue Tracker, a pre-RSS newspaper query machine employed in the Netherlands to understand whether media aided the rise of populism. Recently, Rogers and collaborators have embarked on building the Issue Scraper, which undertakes comparative analysis of the news sphere and the blogosphere. The lead question is: What is the quality of the blogosphere? The Index is a novel form of attention cycle research, showing whether attention to issues is rising or falling, according to civil society (as opposed to the newspapers). Some of the tools by Rogers and colleagues were featured at the ZKM, in the 2005 exhibition, entitled "Making Things Public: Atmospheres of Democracy," curated by Bruno Latour and Peter Weibel.

Parallel Sessions
Thursday, 10 December 2009

Parallel Session 1b Making publics

Chair: Ute Tellman

1b1

Decolonizing Culture, Engaging Plurinationalism: exploring Bolivia's new education reform

Jesse Strauss

University of Amsterdam, Amsterdam, Netherlands

While education interacts with culture as formative features of society, the former has become an important tool to create a false sense of social cohesion while the latter has been forced to battle the diminishing effects of homogenization. This attack on non-Western consciousness has occurred amid vast local and global inequalities, which have proved modernity's ineffectivity. Exploring alternative development strategies in education therefore plays an important role in understanding the interaction between cultural development and educational change. This paper will examine that interaction in Bolivia's context through analysis based on the 'coloniality' framework. The new Bolivian constitution (enacted last January) engages an education reform whose objective is decolonization, inter- and intra-culturalism, anti-imperialism, anti-globalization, and productivity as well as an education which is transformative of economic, social, cultural, political and ideological structures. The government is currently engaging in a dialogue with teachers around the country about implementation. However, the reform is contested by many, especially the urban teacher union. In Bolivia's context of economic poverty and an indigenous majority, the constitutional reform could play a transformative role for many. It is within this transformative potential of the reform that this paper grounds itself. Through three months of field research using strategies from reflexive science, this paper hopes to shed some light onto the debate around the new reform as well as to explore prospects for implementation in the context of that debate. Moreover, it will examine the relationship between education and cultural change in the context of a development framework.

Keywords: coloniality, decolonization, inter- and intra-culturality, indigenism.

1b2

Public sphere: a systems theoretic approach. Interrelation between conventional news media and political blogosphere

Evgeniya Boklage

Free University, Berlin, Germany

This article examines public sphere as an open communicative system. In order to observe the operation and functions of the system of public sphere the study scrutinizes interrelationship between the mainstream news outlets (both offline and online) and political blogs.

Using the system code offered by Neidhardt based on Etzioni's "cybernetic abilities" (input-throughput-output), the paper focuses on the three functions of public sphere: transparency, validation and orientation and how those functions can be successfully performed by the public sphere consisting of various elements, online and offline media as well as conventional and non-mainstream media. In addition, this study applies the concept of the levels of public sphere (encounter-level, topic-level and mass media-level) in order to see what role political blogs play on each of these levels in establishing of the public sphere.

Present research claims that the function of transparency cannot be accomplished merely by means of conventional news media and therefore is the need for independent online media. On the other hand, such medium as blog often fails to perform the functions of validation and orientation and the process leads back to the mainstream media.

1b3

Citizen Management of Technology: from open content to open networks with guifi.net.

Yann Bona , Roger Baig Viñas²

¹*Universitat Autònoma de Barcelona, Barcelona., Spain,* ²*Fundació Guifi.net, Gurb, Osona., Spain*

After the rise of many WiFi networks in different locations since year 2000, an increasing interest on how technologies are managed at a urban level by citizens is leading to what we propose as a Citizen Management of Technology. Drawing from one of the largest free wifi networks in Europe (comprising more than 7.200 links, 6.600 nodes and a will to incorporate fiber optic technologies by 2010) originated in Catalonia, guifi.net, we will present some of the characters that are at play in what we think is a new relation to urban infrastructure. As a step towards that end, we will use Michel Serres notion of quasi-object and collective to highlight changes on the way infrastructure is thought and managed. We will then show the entanglements in which guifi.net emerges, allowing us to map an entity which produces and mobilizes objects which cannot be assembled according to the previous models of telecommunications infrastructure development.

Keywords: wifi, quasi-object, collective, infrastructure, sociosemiotic.

Parallel Session 1c After Euclid: technologies of prediction

Chair: Fabian Muniesa

1c1

Expanding the frame on carbon visualisation: topologies of (ir)relevance

Noortje Marres

Oxford Said Business School, Oxford, United Kingdom

This paper seeks to engage with debates about the affordances of networked technologies of publicity for topological analysis, by considering the case of online tools for the visualisation of carbon emissions. In some respects, these 'easy to use' publicity devices remain surprisingly loyal to geometric – and not topological – forms of space-time. They tend to format emissions as a stable, "detachable" object located in a scalable space, and many rely on 'the exponential curve', enacting a linear future tending to extremes. These applications can thus be seen to participate in the framing of climate change as 'essentially' a spatio-temporal problematic of accountability: how to render measureable in the here and now atmospheric effects produced elsewhere in a geometric space-time. As such, they exhibit some features of what Ezrahi (1993) has described as the 'instrumental epistemology' of liberal democracy. However, in this paper, I would like to substitute for this epistemic perspective an 'ontological' reading of these publicity devices, which has consequences for how we appreciate their topological affordances. To do this, the paper will "expand the frame" on technologies of carbon visualization themselves (Suchman, 2005). Thus, I will consider two further ways in which these devices materialize space-time: by charting their circulation, and by considering their 'in situ' deployment, as documented on blogs. Such an exercise suggests that these networked visual technologies in various ways 'scramble' the scales assumed in definitions of environmental accountability. And it highlights a different way in which disclose space-times, one that is not really considered in epistemic readings: they enact relations of (ir-)relevance among heterogeneous entities (domestic subjects, global targets, industrial sectors, droughts, and so on.) It is to the analysis of such 'isohypses of relevance' that a topological perspective has most to contribute.

Keywords: networks, publicity, carbon emissions, the visual, ontology, scale, relevance.

1c2

Ironic Spatiotemporalities: HIV, PrEPs and Topology

Mike Michael, Marsha Rosengarten

Goldsmiths, University of London, London, United Kingdom

In this paper we use the notion of irony to recast the temporal/spatial configurations of an area of HIV prevention research that in 2004 incurred unprecedented community resistance, namely 'offshore' US funded randomised clinical trials in Cambodia and Cameroon. Irony is understood as the contrast between two or more registers of meaning, where 'meaning' is interpreted heterogeneously to signify enactments of material and semiotic ordering. Referring to these early trials to develop oral PrEP, 'a pill a day' HIV pre-exposure prophylaxis, we trace how the predominant enactment of clinical trials intended to establish prevention efficacy—the basis for predicting effectiveness—is grounded in a view of bodies that are appropriate for testing on the basis of a singular space-time calibration: global counts of infected and dying bodies. Yet the resistance to such enactments suggests something more is taking place. We then review a variety of professional accounts of the early and current trials and propose that this ordering of prophylaxis efficacy is mediated by an ethico-biomedical slimming of multiple spatiotemporalities. This slimming ironically obscures a spatiotemporal multiplicity wherein, for instance, the globalizing rhythm of changing worldwide HIV/AIDS infection and death rates, regional and professional bioethical orderings of risk, and the local instantiation of needy experimental populations complexly – that is, topologically – interweave. Without a capacity to encompass the ironies of such topological complexities, we suggest that predominant ethico-biomedical enactments of trialling are destined to fail in the realisation of ethically effective prevention despite a recent smoothing over of the antagonistic reactions that initially greeted the trials.

Keywords: complexity, bioethics, HIV pre-exposure prophylaxis, 'offshore' clinical trials

1c3

Topology, Economy, Crisis

Lisa Adkins

Goldsmiths, University of London, London, United Kingdom

How might and can a topological approach to culture account for the current economic crisis? Indeed can a topological approach to culture incorporate a notion of crisis at all? The latter is a particularly pertinent question in as much as most received social scientific notions of crisis rest fundamentally on accounts of causality, that is, on the kinds of accounts which a topological approach to culture would ostensibly contest. Notions of causality are moreover routinely evoked in accounts of the current economic crisis, whether these be in classic sociological accounts - where problematic sets of socio-political relations in which economic devices are embedded are attributed with causal powers - or, in accounts attuned to the performatative powers of economic devices where the latter are attributed such powers. The notion of crisis therefore appears thoroughly entangled with that of causality, that is, with a particular arrangement and movement of events in time. Yet this paper will question the necessary entanglement of crisis with causality by examining the temporal profiles of devices attempting to measure economic value and of value producing labour, profiles which suggest that in the contemporary capitalist economy events do not take place in time but with time. The latter examples allow, in other words, a decoupling of the notion of crisis from a linear notion of causality and moreover allow us to speculate that the current economic crisis is one in which non-Euclidian forms of time may be centre stage.

Keywords: global economic crisis, causality, time.

Parallel Session 1d: Networks, politics and publics

Chair: Joe Deville

1d1

Wikipedia as a Space of Controversy

Sabine Niederer

¹*University of Amsterdam, Amsterdam, Netherlands,* ²*Digital Methods Initiative, Amsterdam, Netherlands*

The Wikipedia project has been the source of musings about wisdom of crowds and collaborative knowledge, as well as the subject of criticism about the demise of the expert and reliability of encyclopedic knowledge. Wikipedia is a topic of controversy, but on another level, is also a place where controversies are born, logged and archived.

Wikipedia has a strict protocol of editing and upkeep, making use of technical tools and content agents to deal with vandalism and dubious content. A next step in Wikipedia controversy research could put Wikipedia to use as a space for societal diagnostics. Looking at Wikipedia, what can be said about the state of a controversy? What are indicators and measuring instruments, available on Wikipedia? What are new methods of mapping, when looking at the aspects of technicity of Wikipedia content, such as the Wikipedia editing protocol, an article's history, activity stats, discussion pages, ranking (through WikiRank), language Wikipedias and recent changes feeds. In this paper I will identify these indicators, and will try to develop methods for identifying and mapping controversies through Wikipedia.

1d2

Comparing Google to Google: Repurposing the Engine to Study Local Cultures

Esther Weltevrede

¹*University of Amsterdam, Amsterdam, Netherlands,* ²*Digital Methods Initiative, Amsterdam, Netherlands*

How local or global is an issue? The location of an issue can be studied in a number of ways. A geography of news, for example, may critically study the international coverage of national news in the press. Internet researchers, on the other hand, have theorized the various locations of an issue from a web perspective; that is, researching the discrepancy between where an issue is happening and where it is discussed. Such an approach understands the web as a site for researching not only online culture, but also as a means to studying cultural change and societal conditions. Building on this work, I want to repurpose Google as a research tool to map the nationality of issues with the web.

Which countries have local sources for human rights issues, and which rely on non-local, perhaps establishment global sources? Do such privileged source sets tell us more about a country's information culture, or about Google's means of delivering content nationally? In order to answer these questions, engine results are compared for queries across national domain Googles.

Keywords: digital methods, national webs, Google, issues, algorithm, devices, borders, internet research.

1d3

Archived Publics? On Methods for Reconstructing Context with the Internet Archive

Michael Stevenson

¹*University of Amsterdam, Amsterdam, Netherlands,* ²*Digital Methods Initiative, Amsterdam, Netherlands*

How might a Digital Methods approach and related tools be deployed in the work of the historian of Web documents, specifically those collected by the Internet Archive? As Internet researchers have stressed, the website exhibits characteristics of both 'live' and 'permanent' media, leading to difficulties in the archiving process. At the same time, the presence of natively digital forms of description and organization (e.g. meta elements and hyperlinks) may significantly affect the manner in which the archive is navigated, as well as the process by which the historian selects and analyzes data. I would like to suggest that while the problems of archive inconsistency and incompleteness have been exacerbated on the Web, the specificity of the Internet Archive and the documents it has collected may also make innovative methods possible.

As demonstrated in previous Digital Methods research, the Internet Archive's Wayback Machine lends itself to single-site histories, such as a study of Google through the evolution of its home page. Now, the question concerns to what extent past states of the Web, or portions thereof, can be derived from the Internet Archive. Where historical research generally involves the reconstruction of context, such links may be explicit in Web archives; moreover, one may take a cue from digital ranking algorithms (such as those employed by search engines) and use hyperlinks to indicate reputation.

In this paper I will present ongoing research into the development of blogging in the period 1994-1999. In particular, I will present initial findings on how methods may follow the medium, both in terms of the Wayback Machine's interface and the hyperlinked structure of the Internet Archive.

Keywords: digital methods, web history, Internet archive.

Parallel Session 2a Topologies of Social Change – Urban Spaces of Design Chair: Penny Harvey

2a1

Out of the Blue: topographies of Olympic development in the East End of London

Gillian Evans

University of Manchester, Manchester, United Kingdom

In this paper my empirical focus is the development of the London Olympics 2012 in the East End of London and, in particular, the 11 miles of blue fence which demarcates the construction site and creates a boundary between the new development and surrounding 'fringe' areas of the city. I argue, further to recent theoretical work that explores the dissolution of the subject/object distinction, that entities, of all kinds, including mega-infrastructure projects in cities, are multiple relational sets characterised by a condition of spatio-temporal flux. This makes relationality and spatiality the points of analytical focus in such a way that both new entities and their spatial configuration can be explained as the emerging outcome of what happens when a new field of action is constituted - as a force - against the backdrop of a hinterland of prior acts. Focusing on a field of action - 'the situation' - which here is the Olympic development site and how it becomes well defined despite contesting practices of stabilisation, I explore the symbolism of the blue fence and its promise of a future presence. I show how the leaky boundaries of the fence and the very different spaces at its margins, threaten the integrity of the powerful discursive vision of what is being brought into being on the inside of the fence - a new entity - an Olympic Park, a 'new piece of city' and harbinger of social change.

2a2

Spaced-Out in the City: Homeomorphic topologies and the empty set

Damian O'Doherty

University of Manchester, Manchester, United Kingdom

Inspired by elements of situationism and the *dérive* this paper reports on a methodological experiment that sought to establish a series of urban walks or 'walkscapes' designed to carve open the topological space of city. The project deploys a strict mathematical formula to generate and inscribe the letters 'order/disorder' across an A-Z map of the city of Manchester used as a template to 'write' the letters into the landscape through the physical act of walking. This arbitrary set of rules and constraints was adopted in the spirit of the Oulipo school of social analysis and textual production (associated with Queneau, Perec, Calvino, etc.) in an effort to 'vandalize dormant energies' in the city 'by an act of ambulant signmaking' (Sinclair, 1997). In the effort to observe these restrictions I found myself on occasion hanging by my fingertips from the stone banks of abandoned canals or crawling under barbed wire perimeter fencing. Each letter provides a strict homeomorphic sampling of the city that generates collections of 'objects' that could be interpreted as 'subsets' of Manchester defined according to the axioms of topological structure. However, as the defences of normative locomotion give way to digression and indetermination, perception begins to fragment and distort opening up a realm of uncanny correspondences. In this paper I specifically report on the sampling provided by the letter O in the order series which in the language of topography provided evidence of what might be called an 'empty set' that seemed to resonate with the equally beguiling shape identified as a 'Klein bottle' in formal mathematics. This raises the spectre that at the heart of the city lies a void giving chance to what Derrida might call a 'monstrous' futurity made available in the conduct of such 'bastard' topologies of social change.

Keywords: Manchester, walking, psychogeography, transurbance.

2a3

Transforming Manchester: On the Topological Promises of Digital Simulation and Ethnographic Description

Hannah Knox

University of Manchester, Manchester, United Kingdom

Future spaces of development like buildings, cities and even nature reserves can now be made available to the imagination prior to their material realisation through digital modelling technologies which can simulate fly-throughs, walk-throughs and movies of future spaces. These technologies conjure utopian visions of the transformation of seemingly asocial non-spaces of dereliction, abandonment and non-accessibility into happy, prosperous and safe lived-in worlds. Built by engineers and therefore highly mathematically accurate, these interventionist digital models are ideal examples of a topological approach to social change. They privilege the quantifiable and the mappable to illustrate and illuminate current and projected processes of social transformation. In contrast, the ethnographic methods which I have been using to investigate the development and use of one of these digital models of the city of Manchester, UK, tend to illuminate the ways in which the process of producing these immaterial visions, and of transforming them into material futures, is a fraught political battle between engineers, developers, and the publics that these models are meant to convince. The account that an ethnographic approach produces is therefore not one of smooth topological changes like those that the models promise, but of discontinuity and unevenness in social relations. On the other hand, the potential descriptive success of ethnography raises questions about how an ethnographic mode of attention is itself able to sense patterns and forces of change - to what extent, in other words, can ethnography also be seen as a topological method? In this paper I explore these issues by looking at both the techniques of engineers and the practices of ethnographers as they each try to understand, describe and intervene in changes to Manchester, with a view to thinking about how the idea of the topological might complicate the conventional divide made between quantitative and qualitative methods.

2a4

Working on ideas first: an ethnography of design processes in Milan (Italy).

Andrea Gaspar

University of Manchester, Manchester, United Kingdom

During my ongoing ethnography in a design studio, in Milan, I became progressively familiar with the word 'conceptual': projects are often referred to as being 'very conceptual'. So I wonder what does that mean. It basically means working on ideas before working on objects. Not only ideas are previous to objects, but context, culture and places more broadly, are set apart from ideas as something external to the creative design processes. Ideas come first, and then the "outside" world of culture, objects, places, is used to shape and carry those ideas. A separation between creating and making (Octavi Rofes) is performed, as well as a reinforcement of the idea that design is about change, or about intervention in the world. Whereas objects are used as instruments for ideas, culture, context and space are the background for them. This is not just a matter of rhetorics, it is actually about practices. In order to make a project 'conceptual', all of these 'outside' factors must be created as such. The conceptuality, rather than being given a-priori, is actually provided by a daily and continuous work of isolating ideas from the contingencies of a real – physical, cultural, contextual – world, made external to those same processes. This is what Bruno Latour would describe as a purification process. Design emerges then through those processes as a particularly mental activity, in which objects are progressively abstracted from real and particular things, and transformed into symbolic, semiotic entities, thus achieving the more prestigious status of 'ideas'. What I propose to discuss with my presentation are some of the ethnographic details that reveal how, in practice, those abstracting processes and purifications take place within the design world.

Keywords: design, conceptual design, objects, culture, context, creative processes, purifications, mind, abstraction, making vs creating.

Parallel Session 2b: Movement, migration and territory

Chair: Rosi Braidotti

2b1

Identification Topologies

Evelyn Ruppert

The Open University, Milton Keynes, United Kingdom

In the commercial and government sectors transactional databases contain massive quantities of digital information on individual conduct (purchases made, services used, finances transferred, benefits received, licenses acquired, borders crossed, tickets purchased). The data can be understood as on-going and dynamic measurements of the activities, movements, and transactions of people. In this paper I identify how links, associations, and correlations between these categories of conduct constitute a surface through which populations are being identified and enacted. That is, categories of conduct rather than the usual categories of sociological interest (social class, ethnicity, etc.) are the basis on which whole populations are being identified. What people do in relation to government (transactions) is the object of concern and intervention rather than what they say they do and who they say they are (subjective identifications). Identification is 'read off' transactions and movements, and is derived from multiple sources that can be assembled and reassembled in myriad ways. Rather than stable or relatively fixed, populations are enacted as modulations, continuously changing and always in a process of becoming. Identification is thus open-ended, not fixed but dependent on transactions and movements and the correlative potential of practices such as profiling, data matching, data mining and predictive analytics. Through examples of UK government databases related to border management and social policy I investigate how these identification topologies enact visibilities and invisibilities and the distributive consequences for who is known and governed.

Keywords: transactions, databases, population, conduct, enactment.

2b2

Borderscapes of Differential Inclusion. Challenging the epistemic borders of topology

Sandro Mezzadra

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The presentation will be based on a research and book project with Brett Neilson (University of Western Sydney), tentatively entitled "Border as method, or the multiplication of labor". At stake in the paper will be different instances of proliferation and transformations of borders. These processes will be analyzed with reference to the changing shape of citizenship and labor market. Both the debate on "precarity", which has been particularly virulent especially in continental Europe in the last decade, and different experiences of mobility will be taken into consideration. Highlighting the tensions, the subjective claims that crisscross both borderscapes and the field of migration, the thesis will be presented that we are confronted nowadays with shifting and multi-scalar geographies of inclusion and exclusion. The concept of "differential inclusion" will be proposed as a provisional analytical tool that allows to come to terms with such shifting geographies. In the last part of the presentation, some of the key concepts of the topological approach - such as order, connectedness, distribution, relationality - will be tested with regards with the transformations of borders, citizenship and labor market outlined in the paper.

2b3

Mapping topological deformations of space as diffused migrant territories

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Our research develops tools for interrogating the types of spaces produced through the migration and movement of people. It is based on a single street in north-east London in an area where many Turks and Kurds live. We investigate how the space of the street is affected by the subjectivities of its migrant users through mapping the fluctuating and overlapping territories they produce. By walking with people who have differing, sometimes highly opposing political views, we have tried to create a mapping of the street as a series of 'milieu-effects' (Deleuze) that territorialise and deterritorialise the street. We use artificial neural networks (Kohonen) to encode the walks and to reveal how these diffused migrant territories produce topological deformations in the space of the street. These bio-territories are mapped as 'scapes' (Appadurai) and 'spheres' (Sloterdijk) through referring to the worlds of ticks (Uexküll) and birds (Deleuze and Guattari). Our research claims that the topological approach to interrogating cultures needs also to be addressed at the micro-level, to interrogate how global changes affect the everyday interactions and subjectivities of people. We refer to the concept of 'bio-territory' to move the question of territory beyond that of geopolitics alone to include subjectivities human or otherwise. Using a highly specific computational technique to map the walks as bio-territories was an attempt to transform walking, which is normally viewed as an artistic practice into a specific architectural tool for investigating the fluctuations and flows of the contemporary city.

Keywords: Bio-territories, walking, subjectivities.

2b4

Social movements as actor-networks: a topological approach to social change.

Israel Rodriguez-Giralt

Universitat Oberta de Catalunya, Spain

Conceptualizing and understanding forms of collective action is one of the historic preoccupations of social thought. In this context, I propose that the conceptual and methodological baggage that goes with the Actor-Network theory (ANT), can become a fundamental resource for renewing and enriching the analysis of collective action. For this, I focus on two main contributions: i) ANT's alternative understanding of social action (to explain the social it is necessary to leave the exclusive concern with social relations aside and take into account the non-human actors, such as the technical procedures in which they are involved); and ii) its original definition of the 'collective' (the collective is basically an aggregate of humans and non-humans, without predefined borders, it is just the relational product created by the constant and precarious commitment between heterogeneous elements). Both contributions, I affirm, allow the opening of an interesting discussion about agency and the possibility of articulating a more topological theory of collective action and social change that differs from the dominant traditions in that it considers and assumes the heterogeneous and relational character of social movements, and, as such, it also assumes that all political action is the emergent effect, the interactive product of hybrid collectives in action.

To give an example of the fertility of this approach, I will focus on an analysis of the ecological disaster that occurred in Doñana National Park, in Spain. As will emerge from my reading of the events, the action of environmentalist groups mobilised and enlisted human and non-human entities to resignify the content of the political activity and weave a globality that was to resist the attempts at localising the disaster operation.

Parallel Session 2c: Innovation, organisation and culture industries

Chair: Alex Adriaansens

2c1

Where mass media and social production meet: Change and continuity in self-produced audiovisual projects

Antoni Roig

Universitat Oberta de Catalunya, Barcelona, Spain

In this paper I want to discuss some of the conclusions drawn from a research on collaborative media production, regarding the interrelations between these emergent forms and traditional mass media industries.

Even if the debate around the phenomena of complex self-production (like fan movies or webseries and open source or participatory media) tend to reproduce some old stereotypes in media studies -in terms of revolutionary changes or mere assimilation and complicity with new industry strategies-, I stand for a different approach: the analysis of continuity and change -as expressed by Hesmondhalgh (2007)- precisely through emergent practices, hybrid models and incipient ways of collaboration between different cultural circuits. For this study I have turned to comparative analysis of paradigmatic case-studies through the lens of theories of practice (Schatzki, 1996; Swidler, 2001; Reckwitz, 2002), in order to identify the diversity of motivations behind complex forms of self-production, which account with what Benkler (2006) defines as social production and 'non market production'.

Keywords: media change, mass media, self-production, social production, media practices, cultural industries.

2c2

Social production and consumption in networks: Do we have a new means of economic organisation?

George - Michael Klimis

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Economic organization is forecast to change dramatically due to the growth of the technologies of production, distribution and influence made possible by the internet and ICT (Information and Communication Technologies) in general. The information and knowledge economy emerging will be completely different from the industrial economy of modernity. Effects include the replacement of decreasing returns to scale, proposed by Ricardo, by increasing returns, and the eclipse of agglomeration economies which created the industrial clusters like Silicon Valley and Hollywood, to name but some.

Various theories have been proposed to explain different forms of economic organization and one of the most popular in management is Transaction Cost Economics (TCE). The TCE theory belongs to the neo-institutional and evolutionary traditions and has a long history beginning with Coase and continuing with Williamson as its main proponent. Their analysis gave economists, and especially management scholars, a theory of the firm which enabled them to move away from the "black box" models of the neo-classical economics. The TCE literature distinguishes economic organization in a spectrum that ranges from markets to hierarchies which includes, so called, hybrid forms of organisations such as networks.

The paper critically examines TCE as a theory used to study the phenomena of social production and consumption and try to discern the implications of new systems of exchange on the structure of an industry. It argues that the effects of ICT may vary according to the nature of the industry and /or the product/service, with the cultural industries (e.g the music industry) being exceptional since they produce mostly credence goods where social contagion and network externalities lead to increasing returns. Based on the idiosyncratic nature of the cultural industries hypotheses and propositions are generated for further research.

Keywords: information and communication technologies, transaction cost economics, cultural industries, industry structure.

2c3

Networks in culture: concepts versus practices

Aleksandra Uzelac, Jaka Primorac

IMO - Institute for International Relations, Zagreb, Croatia

In the context of globalisation and technological convergence our social, cultural and working practices have changed and became heavily mediated by digital networks. Today's cultures are in the state of flux that cannot be viewed as static phenomena and we need new conceptual tools to approach it. The new possibilities opened up by ICT - global connectivity and the rise of networks - challenge our traditional ways of understanding culture, extending it to digital culture as well. We have to rethink the concepts we are operating with in our analysis, taking into account the cultural dynamics of the today's changed social reality. Introducing concept of network into looking into a culture as a system is an attempt to grasp its complexity. Network structures challenge us to think outside of scale and of immediate direct cause-effect between two things. In a situation where 'things' are interconnected through networks not all influences are the direct ones. Connectivity is simultaneously opportunity as well as the threat as we must in our analysis look at any particular instance in its overall network context where influences are complex and not always plainly visible. In networks everything is everywhere - networks produce effect of ubiquity and thus poles between global and local become closer. Thus, context of networks have changed how we operate (within them). The paper will examine how the concept of network has been understood in the field culture, particularly in the area of international cultural cooperation. It will look at expectations of the cultural community from the environment of cultural as well as digital networks and investigate/map how different networking structures have been applied in building various networks that facilitates the work of dispersed cultural professionals in Europe.

Keywords: digital networks, cultural cooperation, network models.

2c4

A Topological Approach to the Study of Social Innovation and Design

Ann-Christina Lange

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This paper will focus on the creation of topology as a performative concept of space, by investigating the emergence of creative spaces in artistic subfields of the economy of innovation. This is part of my ongoing research on social innovation where I examine the invention of 'aesthetic objects' and the experimentation with collaborative art forms to foster innovation. First, I investigate the notion of innovation as it is deployed in the discourse of creative practices such as the Danish film-company Zentropa Workz, which use the tool and methods from film production to facilitate business innovation. In order to understand how such artist-led practices, in this case filmmaking operates I will introduce two central topological concepts, which is the distinction between striated and smooth space (Deleuze 1987). I argue that this operation takes form as a 'differential strategy'. The aim is not to investigate the production of artistic objects, that's is a film for the screen, but to look into the set up of film production as an interactive space for producing ideas. Secondly, I will provide an example of a specific interactive event in order to illustrate how such innovation processes can be considered as new sites of knowledge production in contemporary capitalism. In conclusion, I will reflect on how to use a topological approach to study these transformative spaces as a process of smoothing and striation. I will do so, not only by tracing the movement of aesthetic objects in terms of their emergence across different creative sites, but also the becoming of these sites, which constitute a study of organisational transformation.

Keywords: space, invention, aesthetic objects, experimentation.

Parallel Session 2d: Continuity and Change

Chair: Yannis Scarpelos

2d1

The discursive manifestation of past and present through the spatial organisation of changing rituals

Reza Masoudi Nejad

Max Planck Institute, Göttingen, Germany

This paper investigates the complex dynamics of social-spatial relations in the Ashura ritual observances occurring under the impact of rapid and transformative shifts during Iranian modernisation, since the 1920s. The procession of Ashura is known the most significant socio-religious ritual by which the social organisation is practised since the 16th century in Iran. This paper is the result of an interdisciplinary research, integrating morphological analyses, using Space Syntax which focuses on topology rather geometry of spatial systems, with qualitative fieldwork. The research is aimed at advancing the understanding of the spatial dynamic of the Ashura ritual. The research reveals the multidimensional nature of such transformation by illuminating the ways in which society reacts to an imposed transformation of urban structure through the ritual. The study demonstrates that, in contrast with everyday activities and political processions, the Ashura ritual has not been unilaterally affected by the transformation of urban structure. The research states that as long as the social organisation is not significantly changed, the spatial organisation of the ritual will be stable. The analyses shows that the transformed Ashura ritual is spatially organised through the modern city in a way in which the current social relationships are practised, while at the same time the idea of traditional social relationships are preserved and practised. The transformed ritual appears as a practice preserving the idea of traditional urban structure, which is physically transformed but remained alive through the ritual. The spatial organisation of the ritual is then observed as a mechanism that embodies a form of 'social memory', which preserves and transmits the idea of traditional social relationships and urban structure to the present day. In short, the Ashura ritual constitutes a space in which past and present co-exist in a discursive relationship through its spatial organisation in Iranian cities.

2d2

Where is the Underground Today? A Question of Cultural Continuity in Russia.

Anna Ljunggren

Stockholm University, Stockholm, Sweden

The starting point of my paper is the memoire written by a prominent Russian émigré artist Ilya Kabakov entitled "60-s- 70-s", a work dictated before he left Russia and recently published as a book in Moscow.

I am going to analyse the spacial metaphors used in this book such as 'Underground', 'corner' even 'tin-can'. In the context of this work I will also discuss how these concepts relate to the sociological notion of 'subculture'; in this connection I will discuss the question of applicability of the semiotic theory and its cardinal principle of binary oppositions to contemporary culture.

I will in this connection raise the following question: In what sense is the Russian culture that emerged in the course of Perestrojka could be considered new? Is it aesthetically new, or is it the new 'cultural' topology that embraced the pre-Perestrojka culture? I am inclined to believe the latter. Where did the Underground 'flow' today while the space of free expression is shrinking.

Finally I will raise the question of cultural mechanisms during times of radical change. Their function seems to be regulatory: being a compensatory in the situation of dramatic shifts and promoting change in the times of stagnation.

Keywords: underground, perestrojka, cultural mechanisms.

2d3

The Engaged Humanities

Rick Dolphijn, Iris van der Tuin

Utrecht University, Utrecht, Netherlands

This paper proposes the concept 'engaged humanities' as a way to explore questions on how the philosophy of science thinks and acts in response to topological approaches to the study of culture, that is, how scholarly cultures are themselves to be understood topologically. The dominant tradition in the philosophy of science refuses to engage itself with culture or the epistemology of the humanities. Still in the grip of Logical Positivism, the Philosophy of Science in our time still considers itself a discourse that constitutes and is constituted by the alterity of culture and the humanities. Treating the dominant tradition in the philosophy of science as a dominant tradition allows us to map a series of alternative histories that, in different ways, all show us how nature and culture, the humanities and the natural sciences have always already been highly involved with one another. The humanities are engaged in the study of naturecultures (Donna Haraway's term) and the nature of the study of naturecultures; and as such, they are engaged in the philosophy of science. Likewise, they are engaged philosophies of science. By rewriting the philosophy of science as it does not exclude culture and the humanities, we aim at articulating a tradition in the philosophy of science that allows for the topological study of scholarly cultures in the beginning of the 21st century.

Keywords: philosophy of science, cultural theory.

Parallel Sessions
Friday, 11 December 2009

Parallel Session 3a: Performativity, relations and indicators

Chair: Lisa Adkins

3a1

What do you think an indicator is, anyway?

Fabian Muniesa

Mines ParisTech, Paris, France

In the line of an earlier ATACD working paper ("What do you think a simulation is, anyway?"), this paper takes the form of a dialogue between two agents who try to characterize emerging cultures of quantification as a suitable topic for sociological research. Transparency-making devices such as (economic, ecological, social) indicators are both instruments for social-scientific research and part of local material cultures of quantification. Their proliferation carries a series of performative aspects and poses important challenges in terms of their anthropological appraisal. This paper tries to raise a number of theoretical issues in this direction. It focuses on the particular case of performance indicators in public administration.

3a2

Cultural Relationality outside the Frame?

David Oswell

Goldsmiths, University of London, London, United Kingdom

The paper begins by framing the question of cultural relationality (and its corresponding notion of cultural topology) in the context of the continuities and discontinuities across structural linguistics and anthropology, cybernetic systems theory, and actor-network theory. The paper argues that the declared particularism of actor-network theory (i.e. 'no a priori' as a methodological principle) is foreclosed by the residual and framing contexts of structuralism and systems theories.

The second part of the paper then sympathetically stays with the methodological ethos of such a particularist social and cultural perspective in order to consider the arrest of semiosis within the 'context', 'situation', or 'frame'. It does so, though, with emphasis on the relationship between the metaphors of the 'frame' and the 'physicalities' of the built environment. [N.B.: It will probably consider this in the context of sound and acoustic architectures.] In doing so, the question of cultural relationality and cultural change become figured and framed with insides and outsides, insides and externalities.

The third, and final, section of the paper tentatively suggests that recourse to the mathematical sciences (that helped establish both structuralisms and systems theories) offers little in the way of resolving the problem and impossibility of the frame (as a container for time and space as much as meaning). Instead, the paper suggests that the humanities and social sciences offer fruitful resources for considering complex and dynamic relationality across multiple agencies.

Keywords: relationality, frame, agency.

3a3

Concern and Cutting: Thinking through the critique of performativity

Vikki Bell

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Re: the critique of performativity in the turn to questions of process-and-ontology. Beginning from the critique of Butler's performativity, sometimes this critique is less a critique than an extension of it, but, on the other hand, there are fundamental questions at stake in the debate. Through a reading of Bergson, Deleuze and Whitehead, it will be suggested that notions of creativity and 'self-activity' that seemingly 'trump' performativity may be better approached in terms of the etho-ecologies within which elements of all types are sustained and survive. Thus I explore Whitehead's emphasis on mutual prehension, the inter-est that parts and particles of a situation have in other part(s), that creates and sustains them. It is more than a reduction in scale that is at stake here; for although there is a de-privileging of subjects and also of objects in order to consider how their qualities or particles are constituted in relationship to the specific relevant aspects of their ecologies, it is less a reduction of scale of enquiry, than an acknowledgement that from the point of view of those particles only certain aspects of the assemblage may be of interest. Whatever is sustained, is sustained by elements that not only pertain to but are concerned with it. He wrote: 'The Quaker word 'concern', divested of any suggestion of knowledge, is more fitted to express this fundamental structure [of occasions of experience].'(1933:176) Thus might be understood Barad's argument that material-discursive phenomena come to matter through the specific causal intra-actions of the relevant elements, including the apparatus by which it is made to appear, and the human elements who describe the event. Part of the work of these intra-actions, Barad argues, is to enact boundaries – agential 'cuts' (2007:175) - by which the phenomena emerge, making the issue of cutting crucial here.

3a4

Morphogenesis: Whitehead's concrescence, Alexander's unfolding, and Serres' noise.

Xin Wei Sha

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To nuance a topological approach to cultural dynamics, I develop the question of morphogenesis, setting out from A.N. Whitehead, visiting late Christopher Alexander, and landing in Michel Serres. One of my fundamental motivations for this concern is in fact a return to a tissue- or field-based extension of biopolitics that respects the autopoietic qualities of systems but does not reduce to mimicking biological, informatic, or graph-theoretic schema.

In *Process and Reality*, Whitehead states his ontology unequivocally as a philosophy of process: "How an actual entity becomes constitutes what the actual entity is." (PR 64) This process of concrescence is marked by the production of a novel occasion out of many occasions, the "production of novel togetherness." (PR 22) To make this relatively self-contained I will briefly summarize Whitehead's construction, but in this particular presentation I wish to address Whitehead's fundamental appeal to the Principle of Least Action, and contrast it with four other morphogenetic principles.

In his late, and philosophically most evocative work, *The Nature of Order*, Christopher Alexander arrived at the same central problem of morphogenesis from the practical art of building living structures via living processes in space and place, revealing his relation to Whitehead and Leibniz. However, Alexander recognized alternatives to the principle of least action: emergence in complex dynamical systems, and richness through evolutionary process of adaptation or selection. Alexander remarked that there must be a morphogenetic dynamic beyond those governed by "energetic" action, which he equated with the category of number-measure. He therefore conjectured a fourth principle, a morphogenetic unfolding defined with respect to a slippery concept of wholeness that is thoroughly Whiteheadian.

Parallel Session 3b: Thinking Networks

Chair: Matt Fuller

3b1

Stacked Networks Approach in Modeling Sociological Agents as Combination of Non-Determined Stochastic Automata

Ivan Tchalakov, Peter Kopanov, Donka Keskinova
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The paper applies the 'indirect network approach', developed earlier in the framework of Actor-Network Approach (ANT) to the modeling a complex network dynamics. It depart from the empirical observation that often mathematical modelling of social phenomena begins with a kind of reduction, which is far away from the complex (qualitative) models the social sciences develop. Key problem in this type of mathematical modelling is the adherence to the idea of 'guidance' of a (social) life being modelled - i.e. taking for granted the existence of instances that are 'selecting', 'estimating', 'making choices' etc. during the process of change and considering them as a privileged element in the studied phenomena. This assumption has long been dominating in traditional sociology, together with the obsession with 'consciousness' and 'intentionality'. More recent theories (ANT for example) have demonstrated the fruitfulness of different approach, considering social dynamics in terms of "praxis, not poiesis" (De Vrijs 2007). Similar approach is applied our research.

The sociological model we are developing consists in 1) pushing to its limits the idea of opportunistic evolution of the system (form of life); 2) taking 'ex post' stand to the processes going on in the specific form of life; 3) considering the properties of the identified entities (agencies, mediators, etc.) as an outcome of the evolution and not as pre-given attributes ('consciousness', 'rationality', etc. appears as researchers' mode of accounting of what they are modelling) and 4) using specially designed and collected sociological (quantitative) data to verify the models.

The mathematical modelling based on these assumptions aimed at: 1) to quantitatively model the agents in sociological networks via formal methods of discreet mathematics using the stochastic finite automata approach; 2) to develop these models as computer programs (software); 3) to test the software thus developed on real sociological data and correct them if it is necessary. The paper presents the first steps in the realization of these aims.

3b2

Social network influences on reproductive decision-making - an evolutionary approach

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Cultural innovations, such as the spread of low-fertility norms and the uptake of modern contraceptives, are diffused at least partly by social information transmission via social networks. Yet the extent to which the structure and composition of an individual's personal network have an influence over reproductive decisions is still unclear. Evolutionary theory offers clear predictions about the likely influences of kin and non-kin when it comes to reproductive decision-making, and a number of hypotheses have been put forward to explain demographic transition from this perspective. Yet few of these have been tested in real world settings and using social network data. Here we present evidence from two 'natural fertility' populations in rural Poland and Ethiopia, both characterised by high fertility and low contraceptive use. We analyse the composition and structure of personal networks, and assess the relative influence of kin and non kin on fertility outcomes and contraceptive use.

3b3

Collective dynamics of social annotation

Vittorio

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The enormous increase of popularity and use of the WWW has led in the recent years to important changes in the ways people communicate. An interesting example of this fact is provided by the now very popular social annotation systems, through which users annotate resources (such as web pages or digital photographs) with text keywords dubbed tags. Collaborative tagging has been quickly gaining ground because of its ability to recruit the activity of web users into effectively organizing and sharing vast amounts of information. Understanding the rich emerging structures resulting from the uncoordinated actions of users calls for an interdisciplinary effort. In particular concepts borrowed from statistical physics, such as random walks, and the complex networks framework, can effectively contribute to the mathematical modelling of social annotation systems. First I'll introduce a stochastic model of user behavior embodying two main aspects of collaborative tagging: (i) a frequency-bias mechanism related to the idea that users are exposed to each other's tagging activity; (ii) a notion of memory, or aging of resources, in the form of a heavy-tailed access to the past state of the system. Remarkably, this simple modelling is able to account quantitatively for the observed experimental features with a surprisingly high accuracy. This points in the direction of a universal behavior of users who, despite the complexity of their own cognitive processes and the uncoordinated and selfish nature of their tagging activity, appear to follow simple activity patterns. Next I'll show how the process of social annotation can be seen as a collective but uncoordinated exploration of an underlying semantic space, pictured as a graph, through a series of random walks. This modelling framework reproduces several aspects, so far unexplained, of social annotation, among which the peculiar growth of the size of the vocabulary used by the community and its complex network structure that represents an externalization of semantic structures grounded in cognition and typically hard to access.

3b4

Privacy + association: selecting work venues with space + time no longer fixed

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The authors combine design anthropology and mathematical modelling in considering key questions surrounding 'workplace mobility', contingent on technology's dissolution of fixed time and place for much contemporary work.

Technology-work: changing culture - What factors now govern individuals' choice of workplace when technological enablement offers significant freedom in where work is undertaken? Is the reality of 'distributed work' work- or lifestyle-driven? Have management responses adapted to - do they exploit - the scope available? Do these changes facilitate - and have they further catalysed - a reprioritisation of work in work-life harmonisation?

Ideology-space: culture of change - The paper evidences the choice now afforded in work activity, involving amount, mode and venue - at home, in a café, at the office, etc, and through individual or private work, virtual and face-to-face association. Another level of agency is the role of corporate real estate and design consultancy, championing work settings to facilitate interaction, in the belief that (a) these will prompt interaction, that (b) equals collaboration and (c) creates value. Whilst validation of this sequence remains a quest, its propagation is now an independent force shaping workplaces, resulting in varied settings intended to support a range of activities. It is also spawning new methods to evidence these spaces' utilisation and 'change management' strategies to relate people to the options provided.

Mathematical modelling: predicting choice - Against this blend of influences on individuals' selection of work mode and venue, how can the quanta of spaces to match people's choices be predicted, and setting distribution and design be informed? The paper describes an agent-based simulation model of the demand for settings to support different types of work activity, with a view to optimising provision. The authors' collaboration centres on informing and calibrating the model with cultural relevance, to qualify its use in shaping further change.

Parallel Session 3c: A topological approach to psychology?

Chair: Mike Michael

3c1

Varieties of radical empiricism: James/Bergson

Steve Brown

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This paper will review the radical empiricism of William James and Henri Bergson as contributions to 'topological thinking'. Both insist that empiricism study relations caught up in processes of flux and change. This is contrasted with a mechanism which subordinates relations to simple fixed locations. Through James' notion of ambulatory vs. salutatory relations, and Bergson's notions of virtual and actual, an account of the psychological emerges which is framed around change and becoming.

3c2

Deep empiricism for a Psychology in the Whiteheadian Key of Life

Paul Stenner

University of Brighton, Brighton, United Kingdom

This paper will suggest that Whiteheadian thought can provide us with a "deep" form of empiricism that embraces creativity and value. Deep empiricism is grounded in the notion of the "actual occasion" of experience and in the temporal and spatial co-assembly of multiplicities of such occasions. It opens the way to a topological approach that can operate at affective, perceptive and conceptive levels as well as at the 'discursive' level of communication.

3c3

Around the day in 80 Worlds: Deleuze, Suggestibility and the Matter of Application

Johanna Motzkau

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Since suggestibility first featured as a 'topic' in psychology it inspired a paradox. On the one hand 'being suggestible' was considered an expression of manipulability and irrationality. On the other hand the 'ability to be suggestible' was considered the most fundamental characteristic of the human mind, accounting for the possibility of learning, affection and social cohesion. In ambiguously raising the question of 'how we relate while also being separate', 'how we know' while continuously having to perform and reaffirm such knowing in relation to ourselves and others, suggestibility dynamically expresses what could be called the paradox of the 'psycho-social'.

Drawing on interviews with psychological experts and criminal court judges, this paper will explore how suggestibility carries this paradox into the ordering disciplinary structures of psychological and legal practice. The specific focus is on the tensions emerging between concepts of memory, suggestibility, and the application of knowledge/experience for decision-making.

I will argue that the theoretical figure of the 'fold', and the way in which Deleuze (1986) conceptualised it to capture the demarcations of self and thought as a movement, as a process of individuation/subjectification, resonates closely with the way suggestibility problematises legal and psychological practices, and their relationship to individual 'authors/agents' through application. Neither self (or 'subject'), nor knowledge can be grasped as a state, but in the light of the challenge posed by suggestibility, they become visible as the effect of the dynamic self-reference of forces, a continuous process of constituting by relating. Examining the tensions emergent between concepts of memory and suggestibility in legal practice, helps to outline the value of a process oriented understanding of agency and subjectification, as they constitute what could then be called the 'matter of ap-pli-cation'.

Parallel Session 3d: Space, creativity and culture

Chair: Emilio Luque

3d1

From the Lab to the Factory: Bridging creators and industry

Ruth Pagès, Gemma San Cornelio, Antoni Roig

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In recent years, and especially under the current economic crisis, there is a growing trend to promote innovation. This, in its turn, fosters interest in creativity and the spring of diverse kinds of relations between industry and artists. The labour conditions of such relations could be regarded through the lens of the "creative class" definition (Florida 2002), yet some other authors have highlighted its deep degrees of precariousness (Terranova 2005; Lazzarato 2008; McRobbie 2004). Regarding the conceptual level of such relations, on the one hand, it can be discerned that romantic concepts of the artist-as-genius and of creativity persist, linked to the vision of the artist as an agent of change or divergent thinking into industry -which seem much needed for innovation purposes and economic success. On the other hand, some artists claim for a redefinition of their very role, similar to that of the researcher, valuing their own methodology as an asset. Such redefinition is being proposed due to their transdisciplinary activity that overcomes the boundaries of the traditional Art World moving into the science, technology or industry fields. This context varies depending on territories, and its own conception of cultural or creative industries, and consequently the policies applied. The research we present is trying to trace the relations established between these independent creators and the industry through some specific initiatives based in the Spanish territory. The cases selected: 'Talent Factory', belonging to Fundació Digitalent, 'Disonancias', and the research carried within Universitat Pompeu Fabra bridge both sides of the coin. The aim is to examine both structural information regarding how these collaborative relationships are established in terms of authoring, contracts and labour conditions, while relating them to the changes and evolutions regarding the very concepts of talent, creativity, artist or innovation.

Keywords: artist, industry, talent, creativity, innovation, creative industries.

3d2

City of Mobility and Mobile Networking

Tatjana Todorovic

National University of Singapore, Singapore, Singapore

Extensive usage of mobile phones in both developed and the developing countries are alerting theorists from various disciplines on possible changes in how the societies and, what is of interest to this study, cities are (re)shaped. Seen as inevitable condition, increased usage of mobile phones, with its advanced applications, is presuming - intense and enhanced 'free' movement through the city, extraction and convergence of urban daily activities, and new levels such as 'performability' and playfulness in urban space. Furthermore, mobile networking is seemingly opening the possibilities for the production of altered, user-generated space and finally for re-creation of the cities. Since mobility is commonly associated with 'freedom', in both users' perceptions and media representations, first, the relationship of mobility and freedom within the urban space will be elaborated. Next, by using artwork research that involves interventions in urban space by mobile technologies (mobile networking and location based media) as exemplars, the intention is to explore the possible effects of "mass interventions" on city space once artists' experiments reach a general mobile network audience. After trying to closer elaborate what is widely presumed as the 'performability' of space, derived from mobile networking in convergence with location based applications, several questions and problems related to the surrounding discourse will be raised. So far, envisioned changes were concerned with individual users' perception of space and emergence of alternative multilayered urban space that user networks would create. The actual change is in materialization or visualization of existing layers and their further interpretation and manipulation by mobile network users. The question is what kind of alternations in urban space could be expected and for whom exactly the cities will be custom-made. While mobile users are playfully performing in space, their perceptions are looped back into a system as a useful feedback for the decision makers.

3d3

The Impact of Built Form on Location Decisions in Creative Industries

René , Noam Andrews²

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Where do artists and creatives migrate, and why do these places feel similar all over the world? This study investigates the relationship of built form and the formation of creative industry clusters within the context of emerging strands of literature in human and economic geography, network/spatial economics and urban sociology. Going beyond current explanations of gentrification patterns, the research develops a theoretical framework that connects urban migration trajectories to built form by analysing how architecture relates to the dynamic socio-cultural and socio-spatial practices prevalent in creative industries. Using methodologies that are designed to capture both the physical as well as the cultural and symbolic properties of the urban environment, two creative quarters at different stages in their development, Berlin Friedrichshain and London Shoreditch, serve as case studies. The study concludes that creative industry clusters are likely to emerge in areas consisting of urban fabric which (a) has a given set of physical properties that are conducive to socio-spatial practices within creative industries, and (b) symbolises a distance from capital/power that can be used in product imagery, as a projection space for collective identities, and as stage set that is essential for various modes of sociation.

3d4

Tools for Charting Cultural Networks: GIS, Ethnography and Cultural Research - A Case Study

Chris Brennan-Horley¹, Susan

University of Wollongong, Wollongong, NSW, Australia, ²*School of Communication, International Studies and Languages, Adelaide, SA, Australia*

This paper discusses how Geographic Information System (GIS) technologies are being used to enhance ethnographic methodologies within a cultural research project: Creative Tropical City: Mapping Darwin's Creative industries. A key component of the interview process employed on the project was the use of a 'mental mapping' exercise whereby interview subjects drew sketches, revealing important sites and linkages between people and places. Subsequent to interviews, GIS was used to link responses to real world locations, collating them and displaying them in meaningful ways. This paper focuses on how mapping technologies can broaden the scope of data available via interview practices, engaging people visually and not just verbally. Including the maps the maps potentially get away from any 'push polling' or leading aspect of interview questioning alone and, in this instance, revealed the quotidian complexity of creative practice, away from the 'creative city' rhetoric. Revealing big box retailers and collaborations with Lombok as just as much a part of the creative landscape as iconic cultural sites, the maps proved an innovative way of linking place as respondents trace the networks they're part of - local, regional and global.

Additionally, digital map databases resulting from this methodological advance have furnished the project with an accessible and meaningful interactive interface which can be used by researchers for the purpose of research information dissemination and dialogue. Maps have the potential to not only improve the visual, spatial and diachronic analytical tools available to cultural researchers; they additionally open up cultural research methodologies to a wider audience of stakeholders, importantly the research subjects themselves. Mental Maps and GIS are an invaluable triangulation tool for interdisciplinary research projects and evidence of a shift in research practice toward more inclusive forms of knowledge production in the current (new) media age.

Parallel Session 4a: Global Topologies – Global Futures

Chair: Ute Tellman and Sven Opitz

This session starts with a 15 min introduction by Ute Tellman and Sven Opitz followed by presentations.

4a1

Global Extermination. The End of Man as a Biopolitical Phantasy.

Eva Horn

University of Vienna, Vienna, Austria

Swarms present a pattern of collective movement in space that cannot be reduced to traditional concepts of interconnectedness. Swarms challenge the idea of delimited collectives with clear-cut edges and established forms of connectivity and communication. They are entities constituted only by the very movement of a collective of agents. Swarms only exist as a process in space and time. The talk will examine a few consequences of the concept of the swarm for the analysis of social spaces, dynamics and practices.

4a2

Aesthetic technologies: Imagining Catastrophic Futures

Claudia, Rens van Munster²

¹*The Open University, Milton Keynes, United Kingdom,* ²*Danish Institute of International Studies, Copenhagen, Denmark*

For security professionals, the imagination of the future has become one of the main stakes in the management of catastrophic risks: how to manage a threat that has not yet happened, we don't know and cannot predict? This paper engages with the ways in which catastrophic futures are rendered governable and actionable through simulations and exercises. It looks specifically at counter-terrorism simulations developed in the UK as part of the Argus project, which focused on preparedness against terrorist attacks in crowded places. It considers the ways in which aesthetic technologies constitute the future as a space/time to be inhabited, shaped and secured and how current simulations draw upon and reshape the format of exercises developed during the Cold War as highly orchestrated theatrical rehearsals of the disaster to come.

While the culture of catastrophe mainly draws on the role of art, we argue that aesthetic technologies need to be understood in a broader sense, as technologies that govern the perceptible and the sensible. In this sense, aesthetics refers to the governance of the human sensorium at large. We then look at how aesthetic technologies are mobilised by bureaucracies for the governance of human senses and perceptions and how the subject that is fostered through the aesthetic governance of catastrophe is an an-aestheticised subject.

4a3

Global Panics: Topology in Discourses of the Financial Crisis

Urs Staeheli

University of Basel, Basel, Switzerland

The paper addresses the spatial and temporal dimension of panic discourses. After briefly referring to the mythological concept of God Pan and the crowd psychological concept of crowd panics, the paper focuses on discourses of financial panics. The paper shows how financial panic discourses employ an "operative" model of the global by thematizing the global in terms of contagion. I will discuss how financial panics have been framed within an epidemiological framework during the recent financial crisis. This raises questions of how a topological semantics refers to the construction of the global ("global panics") and to questions of control. The paper concludes with outlines of a "political epidemiology".

Parallel Session 4b: Unfolding Postcolonial Topologies: bo(u)nds and mutations

Chair: Silvana Carotenuto

4b1

Mereotopologies of Dance and Culture

Stamatia Portanova, Annalisa Piccirillo

University of Naples "L'Orientale", Naples, Italy

The evolutions of a dancing body presuppose an organized scene, a ground or a territory delineated by the geometric principles of Cartesian space and regulated according to chronological time: a flat immobile surface on which movement unfolds as a sequential trajectory or a sum of discrete steps. Recurring to topology as the "science of self-varying deformation", it is possible to imagine the same movement as a folding spiral or a continuous curve, a multiplicity of qualitative changes undergone by the body at each of its steps. Instead of the fixed points and geometric figures realized by the body in space, the topological image of movement allows us to think of movement as a fluid transformation where it is practically impossible to distinguish between beginning and end points.

How do we make sense of the choreographic composition of dance and its precise geometric parameters, in the intensive dimension of topological thought? What happens when the moving body is that of a 'diasporic' dancer whose performance unfolds across geographic and cultural confines? Is there a relation between the steps of an individual and those of a more or less elastic and malleable cultural organism? This paper avoids the binary opposition between the continuity of movement and the discrete nature of its physical and cultural codifications. Drawing on Alfred N.Whitehead's 'mereotopology' as a 'system of fluid relations between precise geometric entities', we investigate the idea that topology, in its attention for the dynamic folds of moving bodies and overlapping cultures can be creatively woven to a geometry of points, lines and surfaces.

4b2

Unfolding Otherness. Differentiating Difference in Lost.

Enrica Picarelli, Valerio Rinaldi

University of Naples "L'Orientale", Napoli, Italy

Postcolonial studies urge us to acknowledge the presence of waves in the discourse and the representation of 'otherness' that "flares up to reveal a complexity that refuses the truth of a unique and unilateral framing" (Iain Chambers, 2005). At the same time, otherness should not only be approached as a sign of divisibility that fragments the space of representation, but as a performative thrust that softens "framing" into plastic.

The nameless island of American science fiction TV series *Lost* offers an instance of such a space of multiplicity where difference is not so much recognized as multiplicative as engaged as an immanent attractor, acting "as the structure of a space of possibilities" (Manuel de Landa, 2005).

The aim of this paper is to track variations on the issue of queerness in the fictional world of *Lost*. While assertions of difference help producing acts of self-affirmation by some characters, the encounter with the so-called "Others" and the abrupt discovery of the sentient if yet-unexplained nature of the Island - a character in itself - marks it as a "phase space". The stratified space of the Island is a topological/eventual reality where being-present and being-abstract constantly interweave. Emerging from this plastic horizon, queerness is engaged by *Lost* as a difference that exists in differentiation, not only a phenomenon but a "requirement that produces diversity" whose itinerant footsteps and actualizations I aim to follow eagerly throughout this paper.

4b3

Topological Border walls: Indian Visual Art and Political Graffiti

Alessandra Marino, Maria Domenica Arcuri

University of Naples "L'Orientale", Naples, Italy

Considering the border as a topological space, this paper analyzes different ways of envisioning geography and active resistance through visual art. Re-imagining the split between India and Pakistan, Shilpa Gupta underlines the non-correspondence of national frontiers to the territory of her belonging, while in Palestine it is the rise of a community of artists that rewrites the physicality of the wall.

In *Here There Is No Border* (2004) and *Untitled 2005-2006* by Gupta, the wall appears as a topological 'surface' both permeable and writable: in *Here There Is No Border*, strips of self-adhesive tape transform the bi-dimensional space of the wall in a multi-dimensional 'surface', where Euclidean geometry cannot hold; in *Untitled 2005-2006*, through the virtual barrier of interactive screens, the artist shows the wall as the frame of a wider landscape providing access to a 'poly-contextural' reality.

The Israeli-Palestinian 'wall', which in Eyal Weizmann's conceptualization appears as a dynamic, flexible and elastic 'network,' is the constant and variable space guerrilla artists interact with. Their graffiti works, opening a series of imaginary windows and idyllic landscapes onto the political barrier, can be seen as the configuration of a different 'network' of creative actions producing a topological diversification and a Situationist *détournement* of the meaning of the wall: it underlines the unjust materiality of the barrier and attracts international attention on the violation of Palestinian legal and human rights.

Keywords: frontier, limit, partition, surface, postcolonial, graffiti, network.

4b4

'Affective topology' between Postcolonial Digital Art and Urban Music

Beatrice Ferrara, Michaela Quadraro

University of Naples "L'Orientale", Naples, Italy

Affective topology could be considered as an encounter between the topological approach and new media. Focusing on the shift from the politics of representation to the experience of audio-spatiality, this paper will explore the intersected dimensions of image and sound between postcolonial digital installations and the syncretic mixing of sounds from the Caribbean and European techno-cultures in the genre of dubstep electronic music. We intend to investigate which potentials are offered by the topological approach to the issues of identity, memory and in/visibility, and the questions of methods, models, planning and politics. The displacement of the apprehensible visual space in favour of a haptic space results in a corporeal registering, where the abstracted sense of vision as a primary sense gives way to the internal bodily senses of touch and self-movement. Which other dimensions of affective topology can be explored in the haptic visuality of digital art? Which other kinds of space can be produced, crossed and changed in the multi-functional space of the image's intensity? The phenomenon of dubstep music, through the affective emanations spread through the airwaves and infospace of London, may be seen as a manifestation of the energy of the city related to both its social aspects and its virtual potentialities: the city as an assemblage of threshold-zones of folding, overlapping, and invention. Can topology track these movements transversing the urban milieu, and help understand cultures as endlessly variable? How is the digital space of new media art felt through an internal tactility that 'dislocates' fixed coordinates, producing space within our bodies? How can space-time immanent changes be made 'felt-able' at compressed points of sensation, pushing the body beyond thresholds of transformation? How can this criss-crossing analysis map the intersections between postcoloniality, affective topology and aesthetics/philosophy?

Keywords: affective topology, dubstep, identity, transformations, memory, space, visuality.

Parallel Session 4c: Networks, politics and agents - Chair: Richard Rogers

4c1

Redundancy as a resistance discourse

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One of the main challenges posed by a topological approach to cultural dynamics is the horizon of a naturalized social science, where the complexification of the theoretical tools in the analysis of emergent systems corresponds to an ontological reduction drawing up social and natural phenomena. Repeating patterns of organization and self-organization show similarities in both human and non-human systems. In the context of current global conjuncture, the rhetoric of the crisis has recently reaffirmed one specific reverse side of this insight, formulating the resource issue in terms of a human redundancy issue, in multiple contexts. Demographers have emphasized malthusian fears over world population distribution; migration policy-makers propose numeric limits to human mobility across borders; corporate human resource management has championed increased unemployment, aiming for new homeostatic equilibria within the labour market. Redundancy there emerge as a repeating pattern in human systems but, simultaneously, the intertwined debate over redundancy in nature locates itself as a new cornerstone in hard sciences. Genetists are investigating timing and scope of genetic buffering in mutation processes; physicists study synchrony created by high numbers of apparently identical functional units; evolutionary biologists examine repeating cellular clusters in living structures articulation. From this vantage point, redundancy is no longer conceived as intrinsically negative. It becomes one of those repeating patterns blurring the border between human and non-human, creating a multi-layered space where questions arise: how do we define (i.e. qualify) what is redundant? How do we operationalize (i.e. quantify) such a linguistic definition? Where do we find redundancy? What are its functions? What are the scenarios that redundancy leaves open in the possible alternative developments of a given natural-experimental-historical system? Redundancy, in a *latu sensu* ecological understanding, can enable resistance discourse to face the supposed neutrality of the discourses over human redundancy.

Keywords: complexity, synchrony, genome, malthus, quantification, transition, migration, cluster.

4c2

Cognitive automata and the topology of the social web

Tiziana Terranova

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The social web, that is the last generation of web protocols and platforms, has allowed for a transformation of the space of the web that is not really accounted for by visualization of networks based on graph theory that rely on the imagery of nodes and links. The nested and mobile connections allowed by the social web are thus rendered invisible, producing a poor image of the subjective dimensions of the latter that risk to be thus ultimately reduced to the actions and reactions of nodes (individuals) interacting by means of links (actions) within an empty and inert space. The paper explores the conceptual potential of thinking about the social web in terms of cellular automata, the well known computer game which fascinated computing pioneers such as John Von Neumann. Unlike the graphs produced by current network theory, cellular automata start from a topological space that is constructed out of cells and boundaries rather than nodes and links. In as much as cellular automata can be multidimensional, they provide an image of the social web as a hyper-connected space that is fluid and yet also inherently cavernous, convoluted and holey.

4c3

Error Contagion: Tardean Network Hypnosis and Collective Culpability as Processes of Cultural Change

Tony Sampson

University of East London, London, United Kingdom

Digital contagions have been recently described by Galloway and Thacker as effective *exploits* of protocol management. Yet, while the vulnerability of computer code to viruses has focused attention on the potential for resistance to the technocratic elites, the unwitting susceptibility of networked collectives to these programs also provides valuable insights into the changing netscapes of socio-cultural power relations. Frequently cited as robust, wise and collaborative forms of resistance, the networked collective is, like the distributed codes that support it, always vulnerable to viral exploitation.

In this paper I draw upon recent examples of computer-mediated collective vulnerability (botnets) as a way to intervene into a number of academic and popular interpretations of networked subjectivity. For example, contrary to the cognitive models forwarded by the science of human-computer interaction (HCI), which roundly celebrate the raised consciousness of the collectivized individual, the unconscious receptiveness of the collective to contagious automata provides a novel perspective on exploitations of computer assisted communication. The seemingly non-cognitive states of collectives infected by a botnet not only question the wisdom of the world brain and collective intelligence hypotheses, but it also questions the notion that 'the many are smarter than the few'.

Referring to Gabriel Tarde's recognition of the somnambulistic tendencies of 19th century subjectivity, the paper suggests a comparable mode of hypnotic manipulability to that expressed in the fragility of the contemporary computerized collective. Running parallel to old debates concerning the gullibility of crowds to the external forces of hypnotism, the failure to trace botnets back to an identifiable source of control has shifted recent law enforcement and institutional attention to the accountability of so-called zombified subjects. Like the contagious mesmerisms of Tarde's society of imitation, the involuntary actions of a networked collective raise important questions concerning collective culpability.

Keywords: virality, tarde, hypnosis, network, zombie.

4c4

The Image of Networks

Yuk Hui

Goldsmiths, University of London, London, United Kingdom

Today to demand an image of the networks is actually to demand a world image. A world image (ein Weltbild) according to Heidegger is not just an image of the world, but the world grasped as an image. The world image in turns disrupts the ontological and epistemological understanding of the world, since it is considered as the ordering principle as well as the ways that the world can be ordered. The mechanization of the world image started since the ancient Greeks and concretized in the year 1687 after the publication of Isaac Newton's Principia, and ended in last century after the domination of quantum mechanics which rejected the clarity and certainty of the Galelio-Newton paradigm. The new world image reveals in the form of networks under the names ranging from telecommunication networks, to network society to Actor Network Theory, etc. But what exactly is this image? And what kind of topology does it possess? This question demands our attention since it is not only a method of analysis in physics and computation, but also the determining force of the history of culture as a whole. This paper proposes to look at the history of network topologies especially since the emergence of the distributed network, to the concept of social networking (even neuroscience), and question the possibility of thinking beyond this image.

Keywords: topology, cultural engineering, ontology.

Parallel Sessions
Saturday, 12 December 2009

Parallel Session 5a: Media ecologies

Chair: David Oswell

5a1

From the object to the system: art-perception and evolution

Raquel Paricio, Juan Manuel Moreno

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The goal of this paper is to discuss the experiences obtained from artistic environments that are developed using techniques inspired from biological principles. The main contribution of these projects comes from the ability to offer autonomous environments that are able to develop, adapt or evolve depending on the stimuli coming from the user. These environments are based on physical objects that interact in order to create systems or artificial organisms following principles similar to those observed in living beings. Being surrounded by an environment whose behaviour is not fixed a priori but depends on the actions carried out by the participants, the user may get an extended perception. This extended perception is given by the experience of the present moment, to which attention should be paid either through an action, the body or the results generated by an ever changing sculptural setup.

The emergent questions posed by these experiences are given by a paradigm shift that affects both the exhibition method and the way to perceive qualitative experiences in artistic environments developed using bio-inspired hardware. In this paper we shall explain two recent installations as well as the qualitative results obtained after the feedback provided by the users:

POEtic-cubes: It is a sculptural setup, composed by 9 autonomous robots able to self-organize and to adapt its shape driven by the stimuli coming from its direct environment. Every robot has some of the properties of a cell and the cooperation between these elements, an emergent process, permits to self-organize and create an organism.

Weightless spine (Columna Ingràvida): A set of autonomous robots interact between them and with the users in order to construct a virtual extension of the spine or "tail".

5a2

Media Ecologies of Animal Intensities, or, Ecosophical Probe Heads

Jussi

¹*Anglia Ruskin University, Cambridge, United Kingdom*, ²*Anglia Research Centre in Digital Culture (ArcDigital), Cambridge, United Kingdom*

This paper focuses on the transpositions of media and nature through recent art projects such as Harwood, Wright and Yokokoji's Eco Media (Cross Talk) and Garnet Hertz's Dead Media lab. The Eco Media project developed new modes of thinking media (ecology) through a tracking of the intensities of nature. However, in this case the medium is understood in a very broad sense to cover the ecosystem as a communication network of atmospheric flows, tides, reproductive hormones, scent markers, migrations or geological distributions. The project(s) do not focus solely on the ecological crisis that has been a topic of media representations for years, but they seem to engage with a more immanent level of media ecology in a manner that resembles Matthew Fuller's call for "Art for Animals." Media is approached from the viewpoint of animal perceptions, motilities and energies (such as wind) that escapes the frameworks of "human media." In this context the rhetorical question of the Ecomedia project concerning non-human media is intriguing: "Can 'natural media' with its different agencies and sensorium help to rethink human media, revealing opportunities for action or areas of mutual interest?" In other words, media of animals and nature becomes an "ecosophical" (Guattari) probe head for such intensities that escape that of the human being; a machine for experimentation, like an insect that maneuvers via experimentation of its topological surroundings.

Despite the focus on the old media of nature, such a project is emblematic of concerns that stem from a high-tech network culture. Ideas stemming from animal worlds and nature are increasingly used as tools to understand high tech culture, and they expand the notion of "medium" to take into account nonhuman energies of intensive and topological kinds.

5a3

Evolution as biopolitics: Ethics of control and change in Greg Bear's science fiction

Tom Idema

Radboud University, Nijmegen, Netherlands

Modern western culture has often perceived social and biological changes as a threat -a threat projected on an 'other' defined as 'less-than-human'. While the excesses of eugenics and social Darwinism have been criticized, 'us vs. them' thinking, often accompanied by metaphors of war, endures in science and culture. Greg Bear's science fiction novels *Darwin's Radio* (1999) and *Darwin's Children* (2003) illustrate how the challenge of coping with differences and changes in human life may be disengaged from a quasi-militaristic dialectic between an 'us' (the healthy, sane, rational) and a threatening 'them' (a disease, irresponsible scientists, terrorists). In these novels, human evolution is altered through the spontaneous activation of an endogenous retrovirus, 'SHEVA', ironically located in a 'non-coding region' of the human genome. SHEVA causes humans to metamorphose into another species. At first perceived as a global plague, SHEVA provokes mass panic. An international task force is assembled to control the crisis and to find out how SHEVA operates at the genomic level. However, as the story unfolds, it becomes manifest that SHEVA is too complex to locate, decode, or 'treat'-and, moreover, that it may not represent a disease at all, but simply an emergent, posthuman stage in evolution. Taking the cue from Bear and contemporary Deleuzian scholars Rosi Braidotti, Luciana Parisi and Manuel Delanda, I understand SHEVA as a 'literary machine' that sets the narrative in motion and a 'genomic machine' that turns human evolution into an immediate biopolitical issue. The novels thus become machinic topologies that map out a range of potential effects (social, economic, medical) and ethical responses. I argue that Bear's scenario offers a critique of an ethics of control and informs an ethics of transformation that has significance for discussions on biopolitics and genomics.

Keywords: biopunk, genomics, Deleuze, topological analysis.

Parallel Session 5b: Mathematics and culture

Chair: Ivan Tchalakov

5b1

Constraints and extremes, limits and boundaries: A mathematical perspective on social systems

Josep Perelló

Universitat de Barcelona, Barcelona, Spain

One of the most challenging problems in Mathematics is the study of the escape time of a given random particle from a given space. What is the typical time we should wait for the given random particle to escape from a given region? What sort of randomness can increase or freeze this time horizon? What is the effect of adding more dimensions to our space?

The most eloquent measures are the mean exit time, the first-passage time and the survival probability. It is in addition known that the occurrence of the most extreme events is linked to the presence of hidden forces or trends. Complexity and multidisciplinary science have found in these sort of events a significant source of information to describe the dynamics observed in many different systems.

From a quite different perspective, the surfaces dividing two different regions or the penetration of a certain liquid or molecules into hostile environments are of considerable interest to physics. A question to be asked is whether these sort of methodologies and abstract models can be translated to the analysis of social systems.

5b2

Spontaneous vs. imposed globalization in a model of cultural dynamics

Juan Carlos Gonzalez Avella¹, Mario Consenza², Victor M. Eguiluz¹, Maxi San Miguel¹

¹*IFISC (CSIC-UIB), Palma de Mallorca, Spain,* ²*Universidad de los Andes, Merida, Venezuela*

We study an agent-based model of cultural dynamics on a structured population, and subject to an external influence, such as a mass media message. Agents are placed on a social network whose topology can be varied in order to introduce long-range connections between them. The agents can interact with their neighbours in the system and with the mass media according to the cultural similarities that they share, in each case. The concept of culture is intended here as a set of individual features or attributes that are subject to social or external influence. We also define a parameter B that measures the relative intensity of the mass media message with respect to the neighbour interactions. The parameter B represents enhancing factors of the transmitted message that can be varied externally, such as its amplitude, frequency, attractiveness, etc. At any given time, we assume that any agent can either interact with the mass media message or with other agents in the system. In a network with only short-range interactions between agents, the external message is able to impose itself to the entire system. However, when the presence of long-range interactions increases, a competing large group of agents, displaying a state different to that of the mass media, can emerge in the system. This phenomenon can be interpreted as a spontaneous collective organization against the external influence facilitated by long range communications between agents in a social system. We explore three types of collective behaviour in this system: an ordered state imposed by the mass media; an ordered alternative state spontaneously formed by the agents; and a disordered state. These states are characterized in the space of parameters of the system, given by the number of cultural options, the intensity of the mass media message, and the connectivity structure of the network.

5b3

On the modelling of financial time series

Mihail Zervos

LSE, London, United Kingdom

This talk starts with an overview of several standard ways for modelling financial asset prices. In particular, we consider binomial trees, the geometric Brownian motion and Levy processes. We next consider a new class of continuous processes whose local evolution in time is modelled by an appropriate Ito diffusion. The increments of such a process that are associated with consecutive points in a given sequence of times provide a sequence of independent random variables, each having a prescribed distribution. This class of processes could provide a new alternative to modelling asset returns and is associated with market completeness.

The best part of the talk will not assume specialist knowledge.

Parallel Session 5c: Borders and Boundaries

Chair: Urs Staeheli

5c1

Local governance and mining: a boundary problem in a complex system.

Amma Buckley

Curtin University of Technology, Perth, Australia

New governance arrangements emerging from the expansion of the extractive or mining industry in Australia mark the potential for substantial change in relationships between the state, the community and the private sector. It is generally conceived that a move away from horizontal structures of government towards a supposedly 'flatter' form of governance-accompanied by new discourses of participation, empowerment and power sharing-offer great potential to reduce exclusion, and the discounting of community concerns. In the governance of natural resources, for example, mining and other industry groups, Indigenous peoples, environmental lobbyists and other 'stakeholders' are beginning to occupy the space once filled by state and local government. Well-resourced private or corporate actors such as mining companies, located in regional or remote areas offer a salient example of these new arrangements, particularly as they negotiate the 'social licence to operate' with constituent communities. In doing so, mining companies often encounter an implied responsibility to take a lead in local matters and resolve infrastructure deficiencies not only within the host community but in the broader region. This blurring of governance boundaries offers an excellent opportunity to bring this previously absent sector to the forefront of local governance analysis. In order to demonstrate the complexity of such arrangements, this paper draws on the findings of social research into newly established mining operations in Western Australia. While confirming the relevance and legitimacy of local government as a key instrumentality, the paper examines the challenges for all level of government and particularly the host community of managing well resourced corporate actors with global business orientation and acumen chiefly concerned with the business of their business. This study concludes that to some extent these new discourses of participation obfuscate where power resides in an increasingly complex and global system.

Keywords: local governance; extractive industries; mining; private sector.

5c2

Identifying Borders: Erasing Identities

Nikola Petkovic

University of Rijeka, Rijeka, Croatia

My approach to the working question: what is the potential of topological and other intensive approaches to culture and space for thinking about change?; revisits concepts and notions of identity—particularly the extension of the term that has an important historical dimension. While the core of my theoretical approach reinterprets Akeel Bilgrami's concept of surplus phenomenology of identity, its practical part operates with a set of comparative border-writings.

Although geo-culturally remote, narratives written on the US Mexico border and those written on the historical border between Italy and Croatia resemble striking similarities. In order to challenge the thin but resistant line between identity and identification, I propose a parallel reading of textual testimonies written by Oscar Acosta Zeta, Guillermo Gómez Peña, and Richard Rodriguez (US/Cal-Mex) and Nedjeljko Fabrio and Enzo Betizza (CRO-IT). Following the methodological pattern of cultural parallelism, the practical part of my read will end in an open question. It suggests a need for coexistence of two borders as simultaneous places of a divide(as experience-that-enriches) as well as borders as spaces of aesthetic and ideological intercultural union. The question reads: do literatures of the borders test, provoke and question borders of literature?

In the theoretical part of my paper I will use the abovementioned literatures to both reread the process of identity construction and to remedy the damage of obligatory history in cultures whose regional specificities are augmented mainly by searches for bad authenticity. After I propose a set of tools aimed at distinguishing between identity and identification I will underscore the importance of creating new spaces of debating identity--spaces free of official baggage of obligatory history and emancipated from a culturally inherited need for asserting a fixed 'identity'. Their reconstruction, I believe, offers a possible working model for a change.

5c3

Border Spaces: Challenging the City

Sara Saleri

University of Bologna, Bologna, Italy

Humanity is not in ruins, it is a construction site. It still belongs to history.

Often tragic, always unequal, but irreparably common history.

(Marc Augé, *Le temps en ruines*, Galilée, Paris 2003)

With these evocative words, Augé depicts the human condition in its mutable character, in its drama, but also in its inevitable boost towards the future. This vivid sentence grasps the inner complexity of contemporary world: our societies are "construction sites" where the future must be built in a new way. Contemporary cities are the best example of this complexity: multiple cultures crossing each other, carrying out different representations and conceptions of space. The city, in its structure, is a space of negotiation: a relational space, continuously remade, reinterpreted and transformed by its inhabitants. The Russian cultural semiotician Yuri Lotman ascribes to the city the characteristics of a "polylogue": more complex than a dialogue, since the different discourses and semiotic conflicts weaving together escape an unique or even a biunique logic. This constant negotiation process is especially evident in those places where the presence of immigrants is conspicuous, where diversity breaks into local territories. The paper will present specific case studies, drawing on my ongoing PhD research, which focuses on historic inner-city neighbourhoods with a high proportion of immigrant residents. In these places, what is usually perceived as marginal breaks into the centre, thus producing a contradictory and ambiguous zone: a frontier place, where frames and categories are fluid and thus questioned. Which conflicts or practices of spatial negotiation arise from alternative or concurrent uses of space? How is space re-written by the intertwining of old and new practices? Which social discourses contend to establish the cultural meanings of the neighbourhoods? How are borders constructed or negotiated, crossed or reinforced?

Keywords: diversity, border spaces, negotiation.

Parallel Session 5d: Control, Communication and Terror

Chair: Tiziana Terranova

5d1

The labyrinth of the continuum: topological control and becoming

Luciana Parisi

Goldsmiths, University of London, London, United Kingdom

The recent turn to topological thinking has marked a shift from the flatness of Euclidean spaces, determining a cultural grid of points or positions, forms, and subjects, to a Riemannian differential manifold, which has opened the space of culture to the curvature of changes. Such turn has encouraged a re-articulation of the relation between the sciences and the humanities, exposing how the conception of an intensive or differential space has become a matter of concern for the study of dynamic systems, such as culture, but also economics and power. In particular, dynamics systems are driven by thresholds of change and transformation, which lead to the formation of novelties. A novelty is here precisely the result of a differential relation between points, which exposes the superiority of a relational tension between terms rather than their finite determination. However, the superiority of such relational tension, where all appears to be in a continual flux, implies a problem of defining how changes and novelties veritably demarcate irreversible becomings of culture. As Leibniz also pointed out, topological thinking plunges us in the "labyrinth of the continuum", where the transition from finite, discrete reality, to infinitesimal, transcendental magnitudes, can only be explained by a differential quantity, or a curve of transition, between infinite and finite series.

Borrowing from Whitehead's atomic conception of time, this paper will extend on the problem of continuity to suggest that irreversible cultural changes necessitate a "becoming of continuity" and not simply a "continuity of becoming." Cultural becomings are veritable inflections or declinations from a continual flux of change. To conclude, it would be argued that such continual flux of change defines speculative capitalism's investment in generative models of cultural and aesthetic forms of continuity, which constitute current manifestations of a new topological architecture of control.

5d2

The Terror Memos: Topologies of Official Pathology

Karen Petroski

St. Louis University, St. Louis, United States

We cannot understand what the "terror memos" produced by Bush Administration lawyers mean without considering the reaction to them. That reaction, still unfolding, regards the memos as symptoms of a pathological official subject. This diagnosis risks missing the significance of the way in which the memos initially came to light and the shape of the reaction to them, details offering important lessons about the contours of political change.

Two themes pervade the memos: one of change, a paradigm shift in the culture of war; the other of the paradoxes of agency, represented by the memos as an irreducible, impossible phenomenon, most notoriously in the form of the "unitary executive." Yet the memos were first leaked by agents of the supposedly unified sovereign. And their critics have come to insist on complete revelation of the governmental subject, reenacting the diagnosed pathology. These inversions are best conceptualized in terms of the topology of individual and governmental subjectivity, as elaborated by three theorists. Giorgio Agamben's topologically grounded account of the state explains the memos' content and the shape of the reaction, but not why this sovereign failed to present a united front. The work of Jacques Lacan and Kurt Lewin suggests a topological explanation of why the biopolitical state remains vulnerable to its individual agents, if not to those it excludes.

The recurrence of topological language in these explanations is no accident. Topological metaphors refer to phenomena that are primarily thinkable, not just visual or kinesthetic, and therefore are the natural register for description of what is not, but could be: the dynamic at the core of agency, subjectivity, and critique. This dynamic explains the horror of the memos, their disclosure, the drive to simplify them, and the possibilities for radical thought that their dissemination nevertheless affords.

Keywords: terror, law, agency, Agamben, Lacan.

5d3

The safety of the common space; Foucault, Nancy and Funny Games U.S.

Samuel Kirwan

University of Bristol, Bristol, United Kingdom

My paper is a re-thinking of that maxim that we inhabit 'cultures of fear', addressing particularly the manner in which certain spatial techniques of safety, (particularly elements of United Kingdom civil law; Dispersal Orders, Anti-Social Behaviour Orders, No-Drinking Zones and others) distribute the sharing of our common existence. I begin with the Foucauldian literature and how the technical aspects of addressing crime produce subjects governed through either 'freedom' (Rose, 2000) or 'crime' (Simon, 2007). I contrast this with an understanding of technê as it is presented, particularly in the concept of 'ecotechnics', by Jean-Luc Nancy. I present these technicities as they are respectively presented, moreover unsettled, in two aspects of Michael Haneke's *Funny Games U.S.* The first concerns material techniques for exploring freedom - security fencing, management of visibility - practical rationalities that distribute lines of exclusion, that function in the film to lock the central protagonists - a holidaying family - into the unfolding nightmare. The second concerns the technicity of the lake; the common space. Traversable by the ability to sail and the technicalities of approach and greeting, the lake presents the safety of the community guaranteed by a deferred collective judgement. The film effects an unworking of this in a narrative that upturns conventions of narrative meaning and finishing. I conclude by questioning whether the Foucauldian approach can capture the absence of sovereignty, caught as it is presenting 'governing at a distance' as ambivalence; both an adaptive manipulation and increasingly punitive denial of the absence of centralised power (Garland, 1996). I argue instead for the necessity of addressing 'common space' - whether the the shopping centre or gated community, or the politicised 'local community' - as it is traversed by techniques of a final safety; of communal justice and sovereignty.

Keywords: Nancy, ecotechnics, Foucault, governmentality, sovereignty.

Parallel Session 5e: Change, language and books

Chair: Ruth Mace

5e1

Media change and cultural change? Quantitative and generic questions concerning printed French Bibles from the 15th century.

Margriet Hoogvliet

University of Groningen, Groningen, Netherlands

One of the topoi of media history is the cultural change brought about by the invention of the printing press around 1430. This paper will take up the innovative work of German historians (esp. Horst Wenzel) who are evaluating critically this idea, and who also take into account the digital media revolution that we are witnessing at the moment, in order to challenge or to confirm our historical narratives (and, reversely, our own perception of the digital revolution).

This paper intends to give more nuances to this discussion by studying printed French Bibles from the 15th century. The French linguistic area seems to be lagging far behind German speaking regions: the printing industry came up relatively late (Paris 1470, Lyons 1472); there are 22 editions of printed Bibles in German, and only one edition in French. On the other hand, quantitative evaluations indicate that in absolute numbers the French editors printed more vernacular Bibles than their German counterparts. But before starting a quantitative approach, some generic questions should be asked: What is a printed Bible, and what is exactly a Bible? The first printed French Bibles were close copies of manuscript Bibles, thus challenging our ideas of “print” and “manuscript” as opposing categories, intended for separate audiences. After all, since the 13th century, France had a very productive “manuscript industry”. And what texts should be counted as a Bible? Since the 13th century French lay readers of the Bible were chiefly interested in the evangelic message of the New Testament. Consequently, we should take into account the interests of the readers by considering also separate editions of the New Testament and the “Bible abrégée”. These quantitative and generic questions indicate that media change and cultural change – both historical and modern – are not as straightforward as it might seem.

5e2

The universal fractal structure of literary texts

Alvaro, Ramon Ferrer-i-Cancho², Gemma Boleda², Albert Diaz-Guilera³

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How do we humans use one of our most characteristic tools, language? A first step towards answering this question was taken by the linguist G. K. Zipf in the early decades of the XXth century. The law that now bears his name reflects the surprising fact that speakers choose words following a well defined pattern of word frequencies: the most common word in a text is used about 10 times more often than the 10th most common word, which in turn is used 10 times more often than the 100th most common word, and so on. In terms of complexity theory this means that texts (and speech) cannot be characterized by a typical word rarity; rather, words come in all possible rarities. Although some trivial models of text generation have been proposed that allegedly reproduce the same structure, the intriguing nature of Zipf's law remains unexplained.

Nevertheless, Zipf's law just describes a static property of language usage: it is unchanged if, for instance, one reshuffles the pages of a book. To explore the dynamics of language production, we look at the repetitions of words in texts. Surprisingly again, a well defined law emerges quantifying the distance between word repetitions: writers in different literary styles, time periods, and languages, are somehow driven to follow the same pattern of distances, a pattern which in addition is independent of word frequency. Only words carrying important information about the text, such as character names, seem to follow a different pattern. We suspect that these results mirror mental processes governing the functioning of language generation areas in the brain.

5e3

Understanding change through laws of language

Ramon Ferrer-i , Nuria Forns¹, David Lusseau³, Silvia M.G. Caldeira¹

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Many laws of language are known: the law of brevity, i.e. the tendency of more frequent words to be shorter, Menzerath-Altmann's law, e.g., the tendency of longer words to be made of less syllables,...etc. In this talk we will review some of these laws and show that they are also found in other species and the DNA. We will argue that their ubiquity can be explained by a principle of economy that regulates the way in which language and other products of animal behaviour evolve through time.

Parallel Session 6a Cultural topologies: performance and space-time

Chair: Brain Rotman

6a1

Cinematic Transfigurations

Pasi Valiaho

Goldsmiths, University of London, London, United Kingdom

Emile Cohl's 'Fantasmagorie' (1908), one of the first animated films, is basically an exploration of how figures and forms can be deformed, twisted and stretched with the cinematic medium. Emphasizing the free play of cinematic transfiguration beyond habitual ways of regimenting time and space, *Fantasmagorie* creates a 'smooth' space where forms are caught in continuous modulation as the effects of a moving line or diagram. In many ways, 'Fantasmagorie's' visual transformations coincide with developments regarding the nature of continuity and topological spaces in turn-of-the-twentieth-century mathematics and philosophy. The purpose of this paper is to unravel this connection between the cinematic medium and mathematical and philosophical thinking of the era: how did cinema perform a certain kind of perception of multiplicity, continuum and space in its aesthetics? On a conceptual level, this paper seeks to approach cinema as a diagram that, while putting the image in motion, also animated thought in particular ways.

6a2

Form and per(form): rehearsals for a topological theatre

Nicolas Salazar-Sutil

Goldsmiths, University of London, London, United Kingdom

Topological Media Lab is a Canadian-based research group led by Sha Xin Wei that draws insights from and informs the studies of embodiment and performance, as well as poetic uses of topology in philosophies of process. TML's projects also serve as case-studies in the construction of fresh modes of cultural knowledge, particularly in the fields of media arts and techno-science. This paper is a critique of this appropriation of the wandering concept of topology within the field of performance. I further argue that the Classical notion of form, that is, of an unchanging essence that is anterior to the represented world, must be substituted in topologically-oriented theatre by a sense of non-refereed change. This paper tries to conceptualise what a topological theatre may be like, and whether the discrete structure of a finalised plot, of characters and dialogue can be discarded, when the rule of repetition that defines conventional theatre is replaced by continuous differentiation and deformation. Topological theatre plays with the folding of theatrical through-lines, and the impossibility of arriving at any final sense of theatrical pure form, in order to emphasize the invariant qualities of performance: liveness, gesture and affect.

Keywords: Form, Performance, theatre, topology, Topological Media Lab

6a3

Auditory Topologies, Relationality and the Diasporic Propagation of Culture

Julian Henriques

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Topology describes social and cultural flows, fluidities and circulations as transformation processes without the usual reliance on ideas of text or discourse. Thinking topologically can also, more radically, encourage an embodied and relational understanding of the movement and flow of change. To do this, an auditory topology is proposed. This defines space as the depths and textures of the performance sound, rather than as the visual surfaces of objects. The ratios, fluxes and multiple perspectives of acoustic space-time may then be likened to topological transformations, where things both change and stay the same, as distinct from the fixed points and planes of Euclidean geometry. Similarly, with musical expression and experience, versioning in Reggae and improvisation in Jazz, provide examples of how identity is sustained only through becoming different. Most important, the topological bending, stretching and contorting of the surfaces in “rubber sheet geometry” give an idea of movement that is relational. The mechanics of auditory propagation models such movement as the transmission of the energetic pattern of wave compression and rarefaction through a medium, as distinct from the circulations, trafficking, transport or exchange of objects. One example of such an auditory topology of culture is provided by the resonances, reverberations and attunements of the diasporic spread of Reggae music. One question audition asks of topology is how the abstract language of mathematics can describe the situated embodied ways of knowing that are key to the corporeal’s turn against discourse.

Parallel Session 6b: Learning Agents

Chair: Ivan Tchalakov

6b1

Liberals and Conservatives: Worldviews in a Society of Learning Agents

Nestor Caticha, Renato Vicente

Universidade de São Paulo, São Paulo, Brazil

Observers judge opinions and their derived behavior as moral or immoral. Backed up by extensive observational data, Haidt and coworkers (Science, 316, 998-1002, 2007) have argued that people tend to consider a limited number of psychological foundations or dimensions when classifying issues on a moral basis. Individuals with different choices for the relative importance of the dimensions are led to fundamental misunderstandings of moral motivations of each other. We present a model of adaptive intuitionist agents that interact and learn from other members of the population about their classification of issues as moral or immoral. The purpose of learning is to reduce dissention among agents even when disagreeing. Learning by one agent is based on information about a particular issue in question and the opinion of another agent chosen from a set of social neighbors. A society of agents that learn from correlations is easily driven into the formation of factions, while a society of error-correcting agents tends to be more accommodating, preventing polarization into antagonistic camps. We introduce a measure of the effective dimension of the moral matrix, defined in relation to the current set of issues under discussion by the society. Members of the correlation seekers' society have a large effective dimension, while the error correctors show a reduction on their effective dimension. We argue that the difference of effective dimension of the moral matrix of conservatives and liberals reported by Haidt may be partly due to this effect. The study of intermediate cases of learning strategies shows that the number of issues under discussion is important. Richer societies, measured by the number of issues under discussion, are less prone to the formation of opposing factions and a reduction of the universe of issues is likely to promote the onset of factions.

Keywords: opinion dynamics, political psychology, sociophysics.

6b2

New Topological Approaches to the Study of Cognition, Computation & Culture

Sonia Matos

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The field of Human Computer Interaction (HCI), has for long, encapsulated a formal approach, where both cognition and computation - and therefore culture in its symbolic and material applications - have been epitomized by the information- based processing model. Essentially contributing to the view of cognition and computation, and therefore, human- computer relations, as highly confined, symbolic, rational, encapsulated, structured and algorithmic, instead of dynamic, messy and contextual [Harrison et al. 2007, Smith & Thelen 1994].

However, more recently, some have come to recognize, within the field, the need for a new paradigm shift [Dourish 2004, Harrison et al. 2007, Suchman 1987]. This shift has come to incorporate new subjective and culturally situated perspectives within the study of interaction itself, turning the page on previous studies of cognition. Despite the fact, this raises new pertinent questions. Particularly when we consider, that within the fields that study cognition itself, a profound change has been under way, a change characterized by the application of Dynamical Systems Theory (DST) in the study of cognition and action [Kelso 1995, Port & van Gelder 1995, Smith & Thelen, van Gelder 1995]. This has given way to the incorporation of a new powerful vocabulary, one that has provoked an exponential shift within the field. This same shift, now rejects, previous held assumptions; particularly, the idea of cognition as symbolic representation, the modularity of knowledge construction, and finally, the distinction between knowledge and performance [Thelen 1995]. By acknowledging a shift within both fields, through out this presentation we will explore the role of a new dynamic approach to cognition lend down by Dynamic Systems Theory; particularly, in which ways it may draw new methodologies, conceptual tools, techniques and finally the design of new symbolic and material artifacts.

Keywords: dynamic approach to cognition & interactive design.

6b3

Predator-Prey Model for Stock Market Fluctuations

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We present a dynamical model for the price evolution of financial assets. The model is based in a two level structure. In the first stage one finds an agent-based model that describes the present state of the investors' beliefs, perspectives or strategies. The dynamics is inspired by a model for describing predator-prey population evolution: A. J. McKane and T. J. Newman, "Predator-Prey Cycles from a Resonant Amplification of Demographic Stochasticity", Phys. Rev. Lett. 94, 218102 (2005).

The population-oriented dynamics allows agents to change their mind only through self- or mutual interaction, and the decision is adopted on a random basis, with no direct influence of the price itself. One of the most appealing properties of such a system is the presence of large oscillations in the number of agents sharing the same perspective, what may be linked with the existence of bullish and bearish periods in financial markets. In the second stage one has the pricing mechanism, which will be driven by the relative population in the different investors' groups. The price equation will depend on the specific nature of the species, and thus it may change from one market to the other: we will firstly present a simple model of excess demand, where we collect basic properties of limit order book dynamics, and subsequently consider a more elaborate liquidity model. The outcomes of both models are simulated, analysed and compared.

Parallel Session 6c: Money and markets

Chair: Fabian Muniesa

6c1

'I think I shouldn't be allowed around these things': the uncertainties of consumer credit calculations

Joe Deville

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This paper explores some of the dynamics of consumer credit calculation. Drawing on recent interviews with heavily indebted and defaulting debtors, it seeks to provide an alternate perspective on the causalities of 'overindebtedness'. Seeking to go beyond approaches that focus on the social 'consequences' of indebtedness or its 'causes', I seek to examine the ways in which the mundane materialities of consumer credit assemblages problematise acts of economic calculation. Consumer credit depends on a range of processes and socio-technical devices to create a spatio-temporally stabilized 'moment' of exchange. As with all forms of borrowing, it begins from this individuated 'moment' and, through its own various individuating processes, stretches it out. However, from the perspective of the borrower, the particular temporal dynamics engendered by this complex monetary assemblage can generate very particular calculative challenges. I explore the tension in debtors' accounts, in which the often apparently autopoietic dimensions of consumer credit borrowing, involving economic objects with the ability to seemingly 'run away with themselves', sit alongside debtors' (sometimes highly self critical) assessments of their responsibilities as ideally rational, calculating, economic agents. Accounts that ground this tension in the lack of 'transparency' in relation to some of the market devices which compose consumer credit, or inadequate 'financial literacy' on the part of borrowers overlook, I suggest, the ways in which the routine materialities of consumer credit, and in particular the credit card, and the credit statement, enable and render stable lengthy periods of ongoing calculative uncertainty.

Keywords: calculation, consumer credit, economic rationality.

6c2

Changing money: opportunities and challenges in a context of diverse markets

Lucia del Moral Espin

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This paper reflects on the implications that different conceptualizations of money have for social change. We begin by suggesting a revised understanding of various economic perspectives on money and the need to complement them with sociological and political analysis that argues that money is a political or social construct and that it is its functions that give it meaning. Such a framework is followed by Zelizer's multiple money perspective, which sees money as diverse and multiple and not just as a tool for rationalization or domination. In this sense, Folbre highlights that 'money moves in various ways': not only in impersonal anonymous payments, following the traditional rational economic paradigm of efficiency and profit maximization, but also within personal relationships and towards or from the State. We next analyze different historical experiences in which money has been thought of as an object of protest and liberation sought through the creation of new currencies, among others: XIX century utopians, Social Credit in the first decades of the last century or, recently, LETS in the UK. Most of these attempts have been found wanting and strongly criticized. However, at present new experiences of alternative money are reemerging in different contexts. These experiences try to initiate and sustain processes of social and political change by, e.g. using time as a bargaining currency. Consequently, it should be reexamined whether previous criticisms still apply. The focus is both on the analysis of the movements and transformation of these kinds of experiences over time and space and on the relationships between cognitive capitalism and current practices. We finally inquire how far contemporary structures of subjectivity and socio-economic conditions and interactions open new opportunities for people who wish to exchange their time and resources using social, equitable or ecological criteria.

Keywords: proliferative economy, alternative economic spaces, feminist theories, cognitive capitalism.

6c3

Modeling markets at person level

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The Double Auction Market is the standard mechanism for price formation in most modern financial markets. Limit orders are visible to all participants while market orders are executed immediately taking best offer on the market. At the moment you enter a market order, transaction occurs. Current research reaches the last or penultimate level of information, that of the atom or cluster of few social atoms. It is possible to trace all the strategies undertaken by banks or investment firms in their stock market operations and observe the formation of the implied price. Academic work in this area is distributed widely, including physics, mathematics, economics, neuroscience, epidemiology and ecology. The advancement of knowledge in this new interdisciplinary area can benefit not only the academic community but also traders, brokers and the government agencies that regulate the market. It is more necessary than ever to think about the mechanisms and rules governing speculative markets. The order book allows following movements and strategies of a certain company but not the movement of individual traders or brokers who act from inside or through (as intermediaries) the company. One of the major goals of our research is to monitor the movement of a single agent. The data we have access is quite unique and belongs to the movements of the accounts of clients of an investment agency in Barcelona. The pure order book data just identifies the agency but behind it can hide traders and investors with many different profiles and even conflicting ones. It will be important to look at the correlation of individual transactions with situations of generalized panic or euphoria. We want to link with all the knowledge about the irrational behavior (more caring and cooperative) agents as known advocate neuroeconomists.

Parallel Session 6d: Interactivity and Entanglement

Chair:Stamatia Portanova

6d1

Entanglement as a Medial Practice

Susan Schuppli

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My research contends that entanglement (conceptualised as the "ontological inseparability of matter") might be usefully redeployed to consider ways in which historical media artefacts may teleport through space-time to activate different registers of articulation that are discursively non-aligned with the past into which they had previously been sedimented. Entanglement offers a means for crafting speculative fictions whereby an artefact might find its enunciatory resources in radically distributed accounts of social and material relations. Entanglement is a fairly loose concept but not everything can be entangled. It must be used with some strictness so that what is available for entanglement concerns objects and events, whose attributes are shared and operate at the same level. Contrary to the use of entanglement within more vernacular contexts as a general descriptive term for designating processes of creolisation or states of complex intermingling, my specific usage is indebted to its physical heritage within quantum mechanics, which insists that only entities whose ontological attributes are consistent may be entangled. As such it cannot be used to make indiscriminate connections between media entities situated at entirely different registers and composed of entirely different properties. In this regard entanglement becomes a critical tool for working research materials because it insists that the modalities of the metaphor conventionally invoked by notions of entanglement are transformed into an actual account of how matter performs its relationality. Entanglement in this latter regard must not simply be used as a narrative device to explain conjunctive relations and states of interconnectivity but instead should be used as an actual tool for crafting different meanings and new forms of practice and thus alternative knowledge systems. Creating innovative forms of medial entanglement opens up new territories, activates other temporal registers, and invents categories of expression that don't as-of-yet exist.

6d2

Made by many. Tracing and mapping the affective topologies of brands.

Carolin Gerlitz

Goldsmiths, University of London, London, United Kingdom

In this paper I will investigate is the measurement and creation of value in collaborative brand management by engaging with a topological perspective. Co-creative or collaborative branding has become a key paradigm in brand management and refers to branding strategies which are based on the active participation of consumers. Involving consumers or users in distributed practices of value creation has become a widespread trend in creative industries as phenomena such as open innovation or user generated media content demonstrate. The paper will circulate around the interrelation of co-creative brands, social relationships and affective topologies and will discuss how their interplay transforms what counts as worth and as value in collaborative processes in the creative industries. Instead of thinking brand communication in relation to media, I want to suggest reflecting on brand communication in relation to environments, spaces and topologies that are produced by brands but that also produce the brand itself. In this framework collaborative dynamics are not only based on the social relations that motivate actors to work together but also on productive, affective environments that functions as frames for actions. Following a topological perspective, I will focus on corporate evaluation approaches of collaborative dynamics in online spaces: social media research. The increasing business demand for social media measurement tools adds a new dimension to both quantitative and qualitative calculation of collaborative practices that – so I want to show – operates in the framework of brand value, social relationships and topology.

Keywords: brands, social media, affective topologies, co-creation, collaboration, value, measurement.

6d3

Laboratory Interactivity: The Rethinking of Science Museums

Chinfang Chang

Goldsmiths, University of London, London, United Kingdom

This paper presents a new approach to examine contemporary science museum transition, by investigating the educational dimension of museum interactivity. It is generally accepted that interactivity is an influential display technology that keeps museums culturally relevant to an increasingly media-literate contemporary society. With interactive exhibits, science museums are able to create more dynamic, fun and enjoyable experiences of science learning to the public. Some suggest that the interactive technology can improve the science and society relationship, by providing a positive and practical understanding of science to the public; in this way, the active scientific citizenship can be developed. Moving beyond the technology-centred approach, characteristic of the modality within the work of many media studies today, this research shifts the focus from the limitation of interactivity (as a display technology) to the constraint of modern science (in the context of science museum display). Proposing a new term "Laboratory Interactivity", this thesis illustrates a new model of scientific knowledge distribution growing in contemporary science museum industry. Three themes are presented in the paper. First, the literature review investigates an on-going transition in science-museum industry, in associated with the Public Understanding of Science Movement. Second, case studies are presented in exploring the histories, theories, pedagogies and practices of laboratory interactivity in the science museums and science centres in the US and the UK. Finally, some suggestions for the future interactive display research are addressed in the conclusion.

Parallel Session 6e: Lines, design and architecture

Chair: Yannis Scarpelos

6e1

Method in Visual Research

Dag Petersson

The Royal Danish Academy of Fine Arts, Copenhagen, Denmark

Visual statements (non-discursive orders of visibility organizing distinct patterns of appearance), have been described theoretically as dynamic curves. These curves intersect and move apart in representation of changes in the structural consistency of visual phenomena. Although they are occasionally referred to in visual culture studies, it remains to describe a method that makes it possible for students to discover and identify them. A topological approach offers a promising way. Although the method at its current state of development is not a quantification of qualitative change, it draws from a terminology that may evolve it in that direction. I will present the method by referring to a recently completed study of the Nineteenth century documentary photographer Jacob A. Riis. First, I will focus upon how a new type of photography impacted on several established curves of appearance. In order to identify the nature of this impact I will discuss archive research techniques and selection processes that are necessary to identify relevant curves. Also, I will talk about general preconditions for the technique to succeed. Secondly I will show how the dialogue between practice and structure affected these curves, resulting in a new visibility of tenement life and urban poverty. At this point I am referring to Gilbert Simondon and Fernand Braudel in order to illuminate the nature of the affective relationship that creates a new curve. Stressing the importance of working empirically with archive material as a means to identify the structural consistencies, I will introduce the transversal approach as a means to uncover changes in immanent structure.

6e2

The in-between space

Ana Leonor Madeira Rodrigues

Universidade Técnica de Lisboa, Lisboa, Portugal

Drawing establishes a link with visual reality that enables a very personal research process, and at the same time an object/result that also is a communication system. When drawing from life, one tends to ignore what exists between matter and objects, as a kind of negative space, and focus on what is seen. But one may also draw from the non-existing to the existing, that is one registers this negative space and then it will be what we usually perceive as matter that will appear as negative existence in the drawing. Also one will be drawing what is not seen, what links everything to everything. There is no neutral or abstract/outsider viewer. To understand reality, to communicate this understanding you need the individual/personal observer that will later enables the establishing of generalizations. My paper will use the metaphor of this negative space of drawing to place the viewer/observer/drawer in what is named as reality; to understand drawing as a unique possibility of investigating reality and of transmitting this investigation detouring verbal communication.

Keywords: negative space, drawing, observer, perception, linking.

6e3

Time and folds in architecture: a topological interface for designing the built environment

Emilio Luque

UNED, Madrid, Spain

In this paper I use the metaphorical toolbox provided by topology and complexity to analyse architectural design along four axes:

- a. how architects account for/enable (or more commonly, reject/prevent) transformation of the built environment (I see here the topological "continuity in change" theme)
- b. how the surfaces and borders of "the domestic" have altered/folded since the introduction of new ways of going "in", "out", "away" through communication networks
- c. how architects are at the forefront of the augmented description of social realities by incorporating ever-increasing numerical layers into representations that go beyond cartographies
- d. a method (topograms) to allow for the introduction of a new interface between function and form, and the reconciliation of the design of the built environment with its temporal dimension.

Poster Abstracts

The posters are displayed in the Foyer area on the 4th floor.

P1

Real Virtuality of JJ. Gibson

Andrej Radman

Delft University of Technology, Delft, Netherlands

It has been stated that in order to grasp the (postmodern) condition one has to turn to Lynch. David, not Kevin. In order to unlock the (post-postmodern) virtual, a Gibson is in order. Not William and his virtual reality, but the psychologist James Jerome and his real virtuality. These ideas are not isolated. It can be argued that Gibson's approach is germane to contemporary science/philosophy which are concerned with a broader context of the evolutionary-dynamic systems approach to nature.

The paper deals with Gibson's ecological approach to perception based on the complementarity of the perceiver and the environment. Gibson argues that, if the objects of knowledge are separated from the objects of existence, we end up with the duality of mental and physical objects leading to an ontologically indirect perception. Perceptual systems resonate to information. This direct realism is grounded on the premise that, from the outset, experience is a relation of potential structure rather than a formless chaotic swirl onto which structure must be imposed by cognitive process. The world is seen as an ongoing open process of mattering where meaning and form is acquired in the actualisation of different agential virtualities.

Gibson's neologism affordance resonates with Deluzean (posthumanist) expressionism undermining Cartesian dualisms (body/mind, action/perception, plan/section) and fostering the logic of sensation/relation as elaborated by Massumi and DeLanda. Zizek has recently discussed the apparent paradox of the (new) materialism as a formalist project (!). Formalism here is seen as Kwinter would have it: diagrammatic, Foucauldian. Architecture as an allographic practice unfortunately cannot escape representation. However Gibson can be utilised as the beacon of the new materialist topological approach to design rescuing it from the 'linguistic turn' and its damaging legacy. After all: It is not about the world of design; it's about the design of the world.

P2

Exhausted Disclosures – (E/e)xistential Growth Through Film and Topology

John Ferrara

Goldsmiths, University of London, London, United Kingdom

On this poster, I propose a research architecture through which topological and film technologies are interfaced to a project directed towards the disclosure and elaboration of a multiplicity of dispersed and inter-connected spaces of communicability that have arisen through networks of film production, distribution, and reception between the United States and Scandinavia. Considering ontologically the process through which film technologies operate to fragment and disperse sociality, reconfiguring relationships to self, others, and the world (Heidegger), the poster diagrams a specific way in which topology has become implicated in the formation of transnational filmic assemblages of enunciation/territories of articulation (Deleuze) through the organisation of systems of analogy between these spaces. The structurability of these technologies, the networks of connectivity they facilitate, and geometries of dispersion they incorporate, operates in this project as an oscillating totality—a simultaneity of making visible, affective relationship formation, and linguistic/audible articulation that unfolds through the successive build-up and breakdown of topologies through which specific motivations towards disclosure of space and establishment of connectivity exhaust themselves. Reflecting directly on the repetitious-foreclosing of this emergence as a form of existential 'bubbling' or 'foaming' (Sloterdijk), the poster attempts to draw some lines of connection to specific social-philosophical 'conditions' in the United States and Sweden that point not only to the rarefied space within which these topological approaches are active as basis, but, more interestingly, to a philosophical problem concerning the scope of intentionality, defining for what might be considered an 'Existential culture'. In this way, the poster attempts to establish the coincidence of a pervasive ambivalence concerning successful/moral political strategies in social-situations and a diminishing space of non-intentionality/failure of truth to actualize itself that extends and unfolds through the prostheses of film and topological technologies in its search for new auto-poetic motors of collectivity and philosophical elaboration.

P3

Psybody design_Alternative design approaches, without being design themselves

OtherehtO -

Independent Researcher, Milan, Italy

Psybody design includes all those phenomena and practices that contribute to a linguistic re-embodiment of our physical existence without having any intention to literally re-design the psychobody. The aim of this operation is to create a void where the body - intended as the union of psycho-organic materiality, linguistic interpretation and (bio)political consideration - is able to develop one's own presence *ad libitum* or, with other words, independently from socio-culturally established parameters of being. The birth of this project could be interpreted as a reaction of resistance toward the contemporary dominance of mediated representations of purified, disembodied entities over the consideration of the impact that the tangible presence of the body provokes in different spatial dimensions of reality. If we were intended to reduce the reciprocal disturbances between meaning and presence, we shall develop a strategy of conciliation that first of all reevaluates positively the presence effects and the psychobody in general. Sophisticated past attempts of bringing together the linguistic meaning with materialities can be found in the medieval manuscripts of Rabanus Maurus, in whose poems words, body images and numbers form a conjoined unicum. This kind of perception represents the view of who observes two different points, the material and the abstract of the same, inseparable reality of being.

Psybody design resumes the previous efforts of connecting the text body (of the abstract) and the psychobody (of the material). The purpose here is to accentuate how the present dominance of mass mediated body-imagery and meaning-centred discourses tend to produce senses of obsolescence of our embodiments. The use of the language for a visual picturing of the body is, on the contrary, less defined and, as a result, it facilitates the cultivation of difference inside society and the consequential liberal revealing of the transindividual self.

Keywords: presence, transindividual, Gumbrecht, linguistics, détournement

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Programme Overview

Thursday 10 December

08.30-10.00	Registration and Refreshments			Foyer, 4 th floor
10.00-12.00	Introduction and Plenary Session: D Helbing and S Ververde			Aula Magna
12.00-13.30	1b: Making publics Room 402	1c: After Euclid: technologies of prediction Aula Magna	1d: Networks, politics and publics Sala Gran	
14.45-16.45	2a: Topologies of social change – urban spaces and design Room 401	2b: Movement, migration and territory Room 402	2c: Innovation, organisation and culture industries Aula Magna	2d: Continuity and change Sala Gran
18.00-19.00	Conference Reception			Palau March
19.15-20.15	Exhibition Opening and Plenary Session: L Steels			Arts Santa Monica

Friday 11 December

09.30-11.15	3a: Performativity, relations and indicators Room 401	3b: Thinking networks Sala Gran	3c: A topological approach to psychology? Aula Magna	3d: Space, creativity and culture Room 402
12.00-13.30	Plenary Session: P Harvey and E Weizman			Aula Magna
14.45-16.45	4a Global topologies – global futures Sala Gran	4b: Unfolding postcolonial topologies Room 401	4b: Networks, politics and agents Aula Magna	
18.00-20.00	Public Event – Taking networks Literally: M Fuller, A Galloway, R Rogers			CCCB
20.30	Conference Dinner			Attic Restaurant

Saturday 12 December

10.15-11.30	Plenary Session: Scott Lash				Aula Magna
12.00-13.30	5a: Media ecologies Room 401	5b: Mathematics and culture Room 402	5c: Border and boundaries Sala Gran	5d: Control, communication and terror Aula Magna	5e: Change, language and books Room 410
14.45-16.15	6a: Cultural topologies: performance and space time Sala Gran	6b: Learning agents Aula Magna	6c: Money and markets Room 401	6d: Interactivity and entanglement Room 402	6e: Lines, design and architecture Room 410
16.45-18.45	Plenary session: R Braidotti and B Rotman				Aula Magna
17.30-20.30	Topology, Innovation and Cultural Policy				Arts Santa Monica