

Technospaces

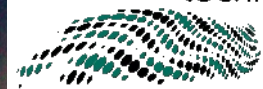
Persistence – Practices – Performance – Power

Research Training Group Topology of Technology
Final Conference, Darmstadt, March 18 – 20, 2015



TECHNISCHE
UNIVERSITÄT
DARMSTADT

topology of
technology



Organizing Committee

Anne Batsche
Andreas Brenneis
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Manuel Dietrich
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Anna Spatz
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Online edition

Information as of March 16, 2015

Layout: David Waldecker

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Schedule

Note: Underlined talks will be held in German

Tuesday, March 17

Informal Get Together

8 pm | Café Hess, Nieder-Ramstädter Straße 13
Guests will be picked up at Welcome Hotel at 7.45 pm.

Wednesday, March 18

Conference Opening

titanium 2 (2.03 | 2.04)

9 – 9.30 am **Mikael Hård & Petra Gehring** Welcome

I. Spatial Perception

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chromium (2.02) | Chair: **Josef Wiemeyer (Darmstadt)**

- 9.45 – 11 am **Aleksandra Dominiak (Darmstadt)** Gender-Based Training of Spatial Competencies by Means of Gesture-Controlled Sport Games
David Uttal (Chicago) When and Why Does Spatial Thinking Matter in Learning Science and Engineering?
- 11.15 am – 12.30 pm **Melanie Dietz (Darmstadt)** The Influence of Spatial Abilities on the Use of Videos in Motor Learning
Stefan Panzer (Saarbrücken) What Information Do we Need to Learn New Motor Sequences?
- 2 – 3.15 pm **Paul Haiduk (Darmstadt)** Data Glasses to Support Pilots in the General Aviation
Peter Lenhart (Zürich) Topologies of Aircraft Cockpits and Remote Pilot Stations
- 3.30 – 4.45 pm **Lars Frers (Telemark) & Eric Laurier (Edinburgh)** Furrowing, Sighing and Clicking: Facing Beautiful Landscapes

II. Topology of Work

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titanium 2 (2.03 | 2.04) | Chair: **Rudi Schmiede (Darmstadt)**

- 9.45 – 11 am **Mascha Will-Zocholl (Frankfurt/Main) & Jessica Longen (Dortmund)**
Topologies of Work. Globalisation, Localisation or in between?
- 11.15 am – 12.30 pm **Jörg Flecker & Annika Schönaauer (Wien)** Place and Space in Service Value Chains
Caroline Roth-Ebner (Klagenfurt) Spatial Phenomena of Mediatized Work
- 2 – 3.15 pm **Kaire Holts (London)** Real Work in Virtual Worlds - Is Online Gambling a New Form of Work?
Alexandra Florea (Frankfurt/Main) Occupational Identities and Quality of Life of Digital Workers
- 3.30 – 4.45 pm **Rudi Schmiede (Darmstadt)** Digital Work in an Informatised Society

Wednesday, cont'd

III. Urbanizing Infrastructures

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palladium (2.05) | Chair: **Donna Drucker (Darmstadt) & Sophie Schramm (Darmstadt)**

- 9.45 – 11 am **Heike Weber (Wuppertal)** Unmaking Technology: The Political Ecology of Old Stuff, Infrastructures and Leftovers
 Cagatay Keskinok (Ankara) The Change in Urban Policy Frameworks in Turkey since the mid-1980s
- 11.15 am – 12.30 am **Dejan Petkov (Darmstadt)** Tramway Systems Development
 Annika Wolff (Darmstadt) Europeanization of Waste Prevention
- 2 – 3.15 pm **Heike Weber (Wuppertal)** Waste Matters: The Case of 20th Century Landfilling in Germany
 Gül Tucaltan (Darmstadt) Urbanization of Garbage in Ankara, Turkey
- 3.30 – 4.45 pm **Pauline Gabillet (Paris)** Local Public Utilities and Urban Energy Governance in France
 Antje Matern (Darmstadt) Comment

Evening Talk

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titanium 2 (2.03 | 2.04) | Chair: **Mascha Will-Zocholl (Frankfurt/Main)**

- 5 – 6.30 pm **Kathrin Passig (Berlin)** The Coworking Evolution: Notes on the History of Coworking Spaces, their Species Lines, Selective Pressures, and Current Development
 Michael Liegl (Lancaster/Hamburg) Comment

Technospatial Concert

8 pm | Künstlerkeller, Marktplatz 15 (Castle)

Guests will be picked up at Welcome Hotel at 7.45 pm.

Mutandini Karl & Rolande Gaross
Scheis'se
Topology of Technology Bigband

Thursday, March 19

Round Table

8.30 – 9.30 am | titanium 2 (2.03 | 2.04)

Research Training Group The Topological Manifesto

IV. Shaping Lives and Life Forms

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chromium (2.02) | Chair: **Suzana Alsancar (Yale)**

- 9.45 – 11 am **Oliver Honer (Darmstadt)** Objective Technology and Subjective Body. Logic of Objects, Cultural Space and Alienation
 Matthias Kettner (Witten/Herdecke) & Christian Lenk (Ulm) Comments
- 11.15 am – 12.30 pm **Bahar Sen (Darmstadt)** Lived Space: Lefebvre's „Non-Intelligible and Irrational Residuum“
 Irene Breuer (Wuppertal) Husserl and Merleau-Ponty: Body Scheme and Lived Space in Architecture
- 2 – 3.15 pm **Jenny Bauer (Darmstadt)** Disrupted Relations: Bodies, Markets and Media
 Fraya Frehse (São Paulo) When Pedestrians' Body Rhythms Disclose Rhythms of Urbanization
- 3.30 – 4.45 pm **Alexander Friedrich (Darmstadt)** The Cryosphere and the Bioeconomy of Global Cold Storage Networks
 Bronwyn Parry (King's College London) The Mobilisation of Cryotechnologies: Exploring the Biopolitics of the 'Walking Egg' Project

Thursday, cont'd

V. Current Spaces of Human-Technology Interaction

30

titanium 2 (2.03 | 2.04) | Chair: **Gregor Kanitz (Darmstadt)**

- 9.45 – 11 pm **Kristof van Laerhoven (Freiburg)** Activity recognition - from the Perspectives of Computer Science and Human Sciences
Josef Wiemeyer (Darmstadt) Comment
- 11.15 am – 12.30 pm **Manuel Dietrich (Darmstadt)** Applying Philosophical Theory for Ubiquitous Computing Design
Yvonne Rogers (UC London) Comment
- 2 – 3.15 pm **David Waldecker (Darmstadt)** Music as Technique and Technology. Adorno's Concept of Technology and the Sociology of Music
Ruth Sonderegger (UdK Wien) Comment
- 3.30 – 4.45 pm Herdis Hagen (Darmstadt) & Dierk Spreen (Paderborn) **Canceled**

VI. Imagine: Visual Entities

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palladium (2.05) | Chair: **Catarina Caetano da Rosa (Darmstadt) & Jakob Birken (Heidelberg)**

- 9.45 – 11 pm **Nicole Hesse (Darmstadt) & Nora Thorade (Bochum)** Beyond the Idylle: Landscapes between Energy and Image
Ute Hasenöhl (Innsbruck) Comment
- 11.15 am – 12.30 pm **Silke Vetter-Schultheiss (Darmstadt)** Urbanity – Landscape – Nature. Visualizing the FRG on Stamps
Anna-Katharina Wöbse (Bielefeld) Comment
- 2 – 3.15 pm **Sina Keesser (Darmstadt)** Depicted Space – The Barbican as Media Phenomenon
Jens Jäger (Köln) Historical Science and Images – Images as History
- 3.30 – 4.45 pm **Andreas Brenneis (Darmstadt)** Metaphors – Figures of Speech – Topoi
Lutz Danneberg (HU Berlin) Comment

Evening Talk

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5 – 6.30 pm | titanium 2 (2.03 | 2.04) | Chair: **Robert Julio Decker (Darmstadt)**

Niels Werber (Siegen) Space, Agents & Technology
Angelika Epple (Bielefeld) Idealism, Scepticism, Empirism: Is there Scientific Progress in Global History?

Conference Dinner

8 pm | Jagdhofkeller, Bessunger Str. 84, Darmstadt
Invited guests will be picked up at Welcome Hotel at 7.30 pm.

Friday, March 20

VII. Philosophy of Topology

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chromium (2.02) | Chair: tba

- 9.10 – 10.25 am **Kai Denker (Darmstadt)** Newton's Bucket – What Might be Learnt from Ontological Speculations for Contemporary Discussions of Space
- 10.31 am Special break: partial solar eclipse (darmstadtium entrance)
- 10.40 – 11.55 am **Manuel Reinhard (Darmstadt)** The Topos of the Border
Suzana Alsancar (Yale) What was Technological Determinism?
The Making of a Legend

VIII. Constructed by Motion: Space and Technology in History

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titanium 2 (2.03 | 2.04) | Chair: **Catarina Caetano da Rosa (Darmstadt)** & **Sebastian Haumann (Darmstadt)**

- 9.10 – 10.25 am **Robert Julio Decker (Darmstadt)** Imperial Models, Colonial Labor
Ulrike Lindner (Köln) Comment
- 10.31 am Special break: partial solar eclipse (darmstadtium entrance)
- 10.40 – 11.55 am **Marie-Christin Wedel (Darmstadt)** Of Moving and Meeting Spaces. Roller-Skating in Germany and the US
Volker Briesse (Paderborn) Spatial Conditions and Demands of the Diverse Use of the Bicycle
- 12.10 – 1.25 pm **Robert Groß (Klagenfurt)** Technology, Temporality and Transformation
Martin Knoll (Salzburg) Sites and Hubs

IX. Digital Spaces

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palladium (2.05) | Chair: **Luise Borek (Darmstadt)**

- 9.10 – 10.25 am **Sergej Hardock (Darmstadt)** Storage and Processing Challenges of Big Data
Based on the Example of Sensor-Defined Networks
Ilia Petrov (Reutlingen) Comment
- 10.31 am Special break: partial solar eclipse (darmstadtium entrance)
- 10.40 – 11.55 am **Anna Spatz (Darmstadt)** Debates in the Digital Humanities
Julianne Nyhan (UC London) Collaboration and Digital Humanities.
Two Studies and a Plea
- 12.10 – 1.25 pm **Andrea Rapp (Darmstadt)** Text as Space
Petra Gehring (Darmstadt) Comment

Farewell Note

1.30 pm | copernicium (0.03)

Mikael Hård (Darmstadt)

Guided Tour of Darmstadt

2.15 pm | Meeting Point: darmstadtium entrance

Abstracts

Gender-Based Training of Spatial Competencies by Means of Gesture-Controlled Sports Games

Alexandra Dominiak

PhD Candidate, Research Training Group Topology of Technology

Spatial competencies are valid as the most prominent gender differences in view of cognitive abilities. Psychological and interdisciplinary games studies could prove a general malleability of spatial competencies. In addition, there are already studies proving technology-based training success by playing First-Person-Shooter games. Consequently, the question whether these gender-specific differences have physiological causes or are possibly caused by other factors has to be answered. Often brain-structural or hormonal specific features of both genders are pointed out to cause social distinctions between men and women. If, however, spatial competencies are improved by training and gender differences can be minimized, then this contradicts the compulsive stamping presumed by the naturalism of sex-specific attributes. In this case gender differences must be explained by an interaction of physical and social conditions. Furthermore studies show that gender independent individual spatial experiences are of great importance for the development of spatial competencies. Playing video games count to these experiences and are therefore ideal means of training intervention.

The aim of this research project is to examine suitable technology-based training methods for spatial competencies on the basis of gesture-controlled sports games and to test the effectiveness of the training. It is expected that the gender-specific differences can be minimized in view of spatial competencies by means of gesture-controlled sports games. A pilot study shows that investigation parameters have to be adapted to reproduce successful interventions and to form an effective training.

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Gender-Based Training of Spatial Competencies by Means of Gesture-Controlled Sport Games

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When and Why Does Spatial Thinking Matter in Learning Science and Engineering?

11.15 am – 12.30 pm

Melanie Dietz (Darmstadt)

The Influence of Spatial Abilities on the Use of Videos in Motor Learning

Stefan Panzer (Saarbrücken)

What Information Do we Need to Learn New Motor Sequences?

2 – 3.15 pm

Paul Haiduk (Darmstadt)

Data Glasses to Support Pilots in the General Aviation

Peter Lenhart (Zürich)

Topologies of Aircraft Cockpits and Remote Pilot Stations

3.30 – 4.45 pm

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Furrowing, Sighing and Clicking: Facing Beautiful Landscapes

When and Why Does Spatial Thinking Matter in Learning Science and Engineering?

David H. Uttal, Ph.D

Professor of Psychology and of Education, Northwestern University

Many studies have demonstrated strong correlations between spatial ability and achievement in STEM disciplines (Science, Technology, Engineering, and Mathematics). I will address whether these correlations imply a causal relations – why does spatial ability predict STEM achievement? It is commonly assumed that spatial ability is required to succeed in STEM fields because these fields are particularly spatially demanding. For example, a geologist must be able to mentally transform the locations of observed geological features to understand their origins. Here I will present another possibility: the large correlations between spatial ability and STEM achievement reflect a tendency for students with low spatial ability to drop out early in training. Those with high spatial ability remain in the major, and this accounts for the high correlations between ability and achievement. Ironically, spatial ability becomes less important as students move through the curriculum, in part because more expert students often make decisions on the basis of specific, well-honed semantic knowledge; thus part of learning to be an expert is actually learning to rely less on spatial transformations. These claims are supported by analysis of large-scale studies of STEM achievement, as well as more focused experimental studies. This analysis has important implications for education and suggests that training in spatial skills may help to prevent some of the dropout.

The Influence of Spatial Abilities on the Use of Videos in Motor Learning

Melanie Dietz

PhD Candidate, Research Training Group Topology of Technology

Spatial abilities, i.e. “the ability to mentally manipulate, rotate, twist or invert pictorially presented visual stimuli” (McGee, 1979 quoted from Sorby, 1999, p. 280), play a crucial role in many fields of daily life including vocation, leisure, education and sport. Research concerning spatial abilities mainly addresses perceptual topics like the component parts, the relevance for human intelligence or gender differences and their origin. It has been shown that spatial abilities represent a key component of human perception and strongly influence the processing of visual-spatial information (Souvignier, 2000). Furthermore learning and development are often-explored topics. Respective research has confirmed that spatial abilities are particularly important within technical professions, like STEM fields in education, where they represent an essential factor limiting performance (Sorby, 1999).

The overall purpose of the current study is to apply these research results to a sport scientific field of research. With focus on imagery in motor learning, the influence of spatial abilities on the use of videos is studied.

During the early phase of motor learning, learners establish an internal representation with strong emphasis on visual-spatial aspects. Regarding the fact that visual-spatial components are considered to be a key to transfer performance (Panzer et al., 2007) movement imagery seems to be important for the success when learning new movements. Presumably, a high level of spatial skills fosters the acquisition of appropriate movement imagery from video sources.

To investigate this hypothesis an empirical study was conducted with the aim of illustrating the correlation between the participants’ spatial abilities and the individual performance in a test instrument measuring the imagery of a specific movement task. The ability to mentally rotate objects, as a representative construct of spatial abilities, was assessed with a newly developed paper and pencil test. The stimulus, establishing an internal representation, was a sequence of gymnastic movements presented in a video. To assess movement imagery the participants were asked to reconstruct the sequence by means of picture cards.

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What Information Do We Need to Learn New Motor Sequences?

Stefan Panzer

Universität des Saarlandes

Recent research provided empirical evidence that codes governing the control of movement sequences are based on different sources of sensory information from different dimensions including visual-spatial and motor information (see also Berniker et al., 2013; Robertson and Pascual-Leone, 2001; Clegg et al. 1998; Leinen, Panzer & Shea, 2015). This support the idea of a more parallel view of sequence production where two coordinate systems cooperate to form codes based in visual-spatial and motor coordinates, so that costs of processing the relevant information is minimized (see Hikosaka et al. 1999). During the presentation a short overview will be presented about the idea that multiple representations are developed during practice and that performers used the most salient information for sequence production.

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Data Glasses to Support Pilots in the General Aviation

Paul M. Haiduk

PhD Candidate, Research Training Group Topology of Technology

New technological developments, such as data glasses, promise to fill the gap with innovative user interaction interfaces. In aviation, data glasses are believed to have the potential to make operations more safe and efficient. Others put data glasses in the so called trough of disillusionment. What is the true benefit of this evolving display technology?

In the light general aviation most flights are operated under visual flight rules (VFR). These private pilots only fly at good weather. For a safe flight the view “out the window” is crucial for maintaining a high level of situation awareness. The pilot has to focus on objects and other aircrafts in the surrounding while being confronted with continuously changing, complex information from head-down instruments. Situations with high level of workload are prone for error. Data glasses are suitable because they present the information directly into the field of view. They also come at a cheap cost, are retrofittable, and attach easily to a trend of mobile devices (ubiquitous computing). From this practical perspective use cases are developed and possible human factors problems are identified. It is still a long way to go but it might result in a future where the dream of a flying car is feasible.

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Topologies of Aircraft Cockpits and Remote Pilot Stations

Peter M. Lenhart

ZHAW Zurich University of Applied Sciences

Human factors engineering in aviation traditionally has focused on aircraft cockpits and the workspace of air traffic controllers. The planned integration of Remotely-Piloted Aircraft (RPA) into the air traffic system will add the Remote Pilot Station (RPS) as an additional type of workplace.

Nowadays, most Remote Pilot Stations are of military origin. These devices try to resemble the topology of aircraft cockpits. This concept reflects the historical situation, that in the beginning military drone pilots were retrained fighter pilots. In civil aviation, authorities only have started to define the requirements for qualification, training and licensing of drone pilots. However, it can be expected that the tasks of a civil Remote Pilot will differ from those of a classic pilot. Additionally, an aircraft cockpit is limited in its physical size, as it has to fit into the front of the aircrafts fuselage. For a Remote Pilot Station no such constraints exist per se. In consequence, a Human Centred Design of a RPS has to address the needs of the human operator. The engineering team has to be careful, not to fall into the “copy and paste trap”. It has to resist the temptation to simply copy a proven aircraft cockpit layout.

Nonetheless, flight operations of manned and unmanned aircraft share a lot of commonalities. First, both will operate in the same airspace system under the same air traffic control. Second, in both environments, the crew is confronted with a high level of automation. Third, preventing a loss of situation awareness will be crucial for flight safety, no matter if the pilot is on board or controlling the aerial vehicle from a remote location.

Present research at the ZHAW Centre for Aviation does concentrate on a Remote Pilot Station layout, where all information is displayed on a single large screen. The generic setup in our human factors laboratory features a curved 55 inch screen with 4K2K resolution. In a first study, we have identified relevant display content. This does include Synthetic Vision, Enhanced Vision, a Navigation Display with Moving Map functionality and the depiction of on-board systems data. Different concepts how to arrange this information have been developed. At the moment, we prepare experiments to investigate the usability of these concepts. A coupled head- and eye-tracking system does allow us to analyze visual scan patterns of the test persons. Our flight simulator, which features a conventional side-by-side cockpit can be used to compare the topology of such a Remote Pilot Station with the topology of an aircraft cockpit.

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Furrowing, Sighing and Clicking: Facing Beautiful Landscapes

Eric Laurier

University of Edinburgh

Lars Frers

Telemark University College/Norwegian University of Science and Technology

In this tandem session, Eric Laurier and Lars Frers will use video material and other rich data to explore how people and technology work in conjunction to perceive landscape. Faced with beauty and sublime experiences of nature, landscape and architecture, people interact with technology and thus create a host of different relations. Car passengers, tourists at rest stops along the Norwegian Tourist Route, their iPhones and other devices will all feature in the shared discussion in which the speakers will talk about perception, technology and space.

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Furrowing, Sighing and Clicking:
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Topologies of Work Globalisation, Localisation or In Between?

Mascha Will-Zocholl

Goethe Universität Frankfurt

Jessica Longen

Universität Dortmund

Modern Information and Communication Technologies (ICT) as well as an increasing informatisation of work and organisation enable extensive restructuring of company structures, business models and value chains. In the course of a progressive digitalisation and virtualisation information, data and services can be supplied from almost any place in the world. Thus the spatial configuration of work changes as information spaces evolve. But those information spaces are not only internet-based possibility spaces but rather working spaces. But work takes place and is based on the active construction of working spaces. Hence, informatised organisation of work is not placeless and disembedded from local contexts. Processes of contextual (re-)embedding are necessarily involved in processes of informatisation. Consequently local and virtual spaces of action are closely connected with each other.

Meanwhile, advanced working methods and technical systems should foster cooperation between different units, locations or within networked organisation. As a consequence employees encounter in their everyday work challenging processes of parallelism, flexibilisation and crosslinking and demands to react immediately on real-time feedback. Increasing complexity and synchronism of working steps demand for a high level of integration at a local and global level of work organisation. However, the responsibility for these integration processes is transferred to the employees.

To map these new topologies of informatised and glocalised work and to analyse consequences of these developments we compare two case studies encompassing call-center services and engineering in the automobile industry. Our presentation will point at specific constellations of reorganised work. Furthermore, it aims to find underlying patterns of this spatial reorganisation which emerge in the interplay of globalisation and localisation and respectively dis-embedding and (re-)embedding processes.

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**Topologies of Work. Globalisation,
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11.15 am – 12.30 pm

Jörg Flecker & Annika Schönaauer

(Wien)

**Place and Space in Service Value
Chains**

Caroline Roth-Ebner (Klagenfurt)

**Spatial Phenomena of Mediatized
Work**

2 – 3.15 pm

Kaire Holts (Hertfordshire)

Real Work in Virtual Worlds - Is

**Online Gambling a New Form of
Work?**

Alexandra Florea (Frankfurt/Main)

**Occupational Identities and Quality
of Life of Digital Workers**

3.30 – 4.45 pm

Rudi Schmiede (Darmstadt) Digital

Work in an Informatised Society

Place and Space in Service Value Chains

Jörg Flecker
Annika Schönauer

Institut für Soziologie, Universität Wien

Drawing on a literature review and on empirical research on value chain dynamics and relocation of business services in all kind of industries this paper explores the spatial dynamics of value chains and networks, the degree of local embeddedness of digital work and the 'production' of 'placelessness' and space in different forms of collaboration and power relationships. It is going to present examples from software development, research and development, crowdsourcing in creative work, shared service centres and business process outsourcing.

The concepts of value chains and global production networks are usually used to denote organizationally and/or spatially separated stages of entire manufacturing processes (Gereffi et al. 2005), for example from research and development to the distribution of products. More recently, research has started to acknowledge the increasing externalization and relocation of service functions and has shifted attention to the service sector. There is in fact a trend towards the outsourcing and relocation of service functions, including front-office activities in customer service, high-end software development, and other divisible domains in business processes (Huws et al. 2004, Batt et al. 2009, Taylor 2010, Flecker/Meil 2010). Many organisations in manufacturing, financial services and the public sector rely on specialised accounting, R&D, HR, IT service and logistics provision (Coe et al. 2008: 276), and use suppliers of business-process outsourcing, including call centres. Finanzialisierung accelerates such dynamics through pressures for external restructuring (Thompson 2013).

Spatial aspects relate to different scales and several levels of inquiry and include geographic relocation or delocalization, spatial centralization or spatial dispersal. It is widely held that relocation or delocalization of ICT-enabled or 'digital' work is, 'in principle', always possible. In contrast to this view, we would argue that 'placelessness' cannot be attributed to particular business functions or types of work like software development, R&D, back office functions as such. Of course, ICT and the Internet can help to emancipate activities from place and diminish spatial and temporal barriers. Still, every social and economic activity is of course geographical as it is inscribed in space and 'takes place' somewhere. But, more importantly, what is perceived as 'placelessness' needs to be actively 'produced' in every single case through a process which may include the digitization of information, the modularization of business functions and the standardization of tasks (Huws et al. 2004). Such arrangements in fact produce 'new territorial configurations by harnessing the social process into a new geography of places and connecting flows' (Swyngedouw 1993: 306). In such processes, aspects of organization, labour relations, technology and space are closely intertwined. Obviously, to examine the socially contingent effects of digitalized work we need to analyze the ways in which delocalized work is made possible in the first place within social and economic power relations and the ways in which it can empower people or make them vulnerable.

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Occupational Identities and Quality
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3.30 – 4.45 pm

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Spatial Phenomena of Mediatized Work

Caroline Roth-Ebner

Department of Media and Communications
Alpen-Adria-Universität Klagenfurt

In Cultural and Social Sciences, space is perceived as culturally or socially constructed, as a result of communicative and social action (Funken/Löw 2003). According to the theory of mediatization (Krotz 2001, Hepp 2011), media play an important role in transforming space, space-related perceptions and actions. Digital media, along with the ongoing process of virtualization, have led to the flexibilization and dissolution of the boundaries (German 'Entgrenzung') of existent spaces and to the emergence of new spaces. In a recent study ('Mediatization of Work'), the interrelation between the mediatization of (office) work and the phenomena of space and time was explored. The study was led by the question how the use of digital media at work changes the workers' perceptions of time and space, and their time- and space-related actions. The research methodology followed a triangulation strategy and consisted of 20 qualitative interviews with intensive media users. They are referred to as 'Digicom Workers', in order to emphasise the vast number of communicative tasks, which they carry out mainly via digital media. By profession, they are e.g. managers, software designers, project coordinators, and scientists. Prior to the interviews, the Digicom Workers were asked to use diaries to document their media use at work and afterwards to visualize their media use at work. The latter methodological approach aims at acquiring further aspects, which do not occur during the interviews and can serve to illustrate the findings. Additional data was gained by conducting an online survey (N = 445) with people who use media at work in a non-predefined intensity. Thus, the results yielded by the qualitative study with the heavy-media-using Digicom Workers were contrasted with a broader population. The overall findings of the study revealed the transformation of space in several aspects: 1. The time- and space-related independence of work leads to a flexibilization of workspace. Examples are work from the home office or work on the move. Digital media (smartphones, notebooks asf.) serve as virtual offices, so that one can speak of a new, electronic mobility of the workforce. 2. There is an extension of space in the context of virtual work: New virtual working spaces emerge and are even used in a parallel mode. E.g., when having an online conference, breaks in the conversation can be used to arrange a date in a virtual group calendar. 3. Global digital communication and virtual work result in the reduction of distances as they connect people from all over the world, even in the context of close collaborations. The co-workers can be just a click away, even though they are located across the globe. 4. New forms of (virtual) presence and co-presence emerge through processes of digital communication and information. E.g., the status information in instant messengers acts as a virtual agent that indicates the presence of a person in the virtual working environment.

II. Topology of Work

Wednesday, March 18
titanium 2 (2.03 | 2.04)
Chair: Rudi Schmiede (Darmstadt)

9.45 – 11 am
Mascha Will-Zocholl
(Frankfurt/Main) &
Jessica Longen (Dortmund)
Topologies of Work. Globalisation,
Localisation or In Between?

11.15 am – 12.30 pm
Jörg Flecker & Annika Schöner
(Wien)
Place and Space in Service Value
Chains
Caroline Roth-Ebner (Klagenfurt)
Spatial Phenomena of Mediatized
Work

2 – 3.15 pm
Kaire Holts (Hertfordshire)
Real Work in Virtual Worlds - Is
Online Gambling a New Form of
Work?
Alexandra Florea (Frankfurt/Main)
Occupational Identities and Quality
of Life of Digital Workers

3.30 – 4.45 pm
Rudi Schmiede (Darmstadt) Digital
Work in an Informatized Society

Real Work in Virtual Worlds – Is Online Gambling a New Form of Work?

Kaire Holts

University of Hertfordshire

Gambling has existed for centuries but online gambling has only emerged over the course of the last two decades. Only a few academic authors have written about online poker, yet all of them state that the popularity of gambling and poker in particular has grown extraordinarily since it went online. Compared to traditional forms of gambling, online gambling reaches a much wider audience. estimate that 40 million people across the northern hemisphere play poker regularly and that it has “become a multi-billion dollar activity that embraces diverse forms of face-to-face and online interaction”. also studied the global online poker market and estimated its size to be 2.7 billion USD (net revenues of stock listed online poker operators) in 2009 and that in 2010 from 6 million players more than 1.4 million played the game for real money.

Interestingly, online poker as a form of gambling is not only played for pleasure but it also provides a main or supplementary source of income for a growing number of people around the world. The idea of 'getting rich quick' or making a living from gambling is not new. However, there are new aspects that facilitate income generation in online gambling. Internet and mobile technologies have brought poker into the home and the workplace environment (Griffiths and Barnes, 2008). Digital tools are helping players to reduce the risk factor in online poker, play at multiple tables, track other players' performance, or help them to distinguish between experienced and casual players.

This research distinguishes between different types of players and explores the particularities of online poker as a work activity. It looks at different employment relationships that exist in online poker and compares them with traditional models of employment and self-employment. This creates a number of questions related to the conceptualization of online gambling as a form of work. This presentation will offer a summary of results and data gathered from semi-structured in-depth interviews with online poker players from Bulgaria, Romania and Estonia. It will focus on analysing the distinctive features of their working arrangements which indicate the underlying, implicit relationship, such as how the work is controlled, the worker's degree of autonomy and the reward system.

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3.30 – 4.45 pm

Rudi Schmiede (Darmstadt) Digital
Work in an Informatised Society

Occupational Identities and Quality of Life of Digital Workers: Subjective assessments

Alexandra Florea

Goethe-University, Frankfurt am Main

The widespread use of accessible technology, such as mobile devices and Internet, has a massive impact on people's lifestyles and work. For more and more people, digital technology opens the door not only to leisure pursuits but also work opportunities and the mix of both (Chatfield, 2012). Topics such as virtual/ digital work, crowdsourcing and online labour markets (OLM) are among the current topics in the broader discussion about the future of work. While some authors focus on the economic aspects of the online labour markets such as price setting, elasticity of supply and demand, skills matching (Horton, 2010; Satzger, Psai et al, 2012; Ranade, Varshney, 2012), for other scientists in fields such as psychology, computer science and business studies, the focus lies on the innovative aspects of crowdsourcing, risk and rewards (for businesses) associated with crowdsourcing (Chandler, 2013), optimisation and standardisation of crowdsourcing to better serve businesses (Ipeirotis, 2011), psychological priming for improving crowdsourcing quality (Morris, Dontcheva and Gerber, 2012) and various other experimental attempts to understand the dynamics of tasks and incentives, entrepreneurship research, or human behaviour (Rand, 2011; Aguinis, Lawal, 2012; Paolacci et. al, 2010). When social scientists join the conversation about the future of work in the context of the emerging technologies (eg. Crowdsourcing platforms), the accounts are few but diverse. However, the study of the online worker as an individual, a human being, is rarely in focus. Moreover, while traditionally labour sociology looks at employment relations, the challenge raised by digital work is that many of the online work arrangements do not take the form of employment. In the new order of digital work, the employees become independent contractors or freelancers, the employers become clients, and the employment relationship becomes a commercial relationship. What is gained and what is lost in this transformation remains unclear. While the current narratives about the future of work go as far as claiming that by 2020 nearly half of the working age population in certain countries will be involved in some form of technology-mediated freelancing, we don't know much about who are the digital workers, what are their motivations and how they assess their work arrangement. Taking a quality of life approach, the research questions that this paper aims to answer are: what are eWorker's individual perceptions and beliefs about their work arrangements and occupational identities? Is eWork a "good" work arrangement as perceived by the workers themselves? The focus on individuals, rather than on policies, institutions, organizations, or companies, comes from the need to understand particularly what these work arrangements and occupational identities mean for individual people and how these arrangements affect their lifestyles and quality of life, "the degree to which a person enjoys the important possibilities of his/her life" (Raphael, et. al, 1998: 2), in three major life domains: being, belonging and becoming (Renwick and Brown, 1996). Being refers to who one is and includes Physical Being (health, hygiene, nutrition, exercise and general appearance); Psychological Being (psychological health, feelings and evaluations about the self such as self-esteem and identity) and Spiritual Being (one's personal values, standards of conduct and spiritual beliefs). Belonging is about the person's fit with her environment and includes Physical Belonging (connections with the physical environments of home, workplace, neighbourhood) and Social Belonging (links with social environments and acceptance by intimate others such as family, friends, and community and identity as part of an occupational group). Becoming refers to activities carried out in order to achieve personal or professional goals and aspirations and includes Practical Becoming, Leisure Becoming and Growth Becoming (Akselsen, 2001). Using a qualitative approach, we draw on methods such as auto-ethnography and narrative analysis to understand how the subjects (multi-locational eWorkers who perform activities that they label as work at least one working day per week on one of the following platforms: Amazon Mechanical Turk and/ or oDesk) assess their quality of life. Interviews will be conducted between January 2014 and May 2014, with a sample of at least 10 multi-locational eWorkers targeted. Results will be available by the conference.

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Digital Work in an Informatised Society

Rudi Schmiede

Institut für Soziologie, TU Darmstadt

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Unmaking Technology: The Political Ecology of Old Stuff, Infrastructures and Leftovers

Prof. Dr. Heike Weber

Technik- und Umweltgeschichte, Bergische Universität Wuppertal

The presentation argues that Political Ecology (as overarching perspective) as well as Science and Technology Studies (as detailed studies on stuff, technologies, and infrastructures), should more strongly consider the “unmaking” of materials, things, and structures. While the making, using and maintaining of products, technologies and infrastructures has been studied in much detail, we know quite little about the ways how people, societies, or systems get rid off the “old” and “used”, and this so despite the fact that Political Ecology argues for a combined analysis of the social, political, material, and natural dimension. While the “social metabolism” concept offers a framework to study the flow of materials through society from in- over through- to output, it does not grasp the role of norms, practices, and values in the making and unmaking of things. Such approaches however could and should inspire STS to go one step further and to enlarge its ambitious theories on making, using, and maintaining things towards the unmaking of the made. Terms such as “unmaking”, “divestment”, “exnovation”, or the German “Entschaffen”, have been recently coined by diverse researchers – among them the anthropologists Djahane Salehabadi and Nicky Gregson – to shed light on this largely overseen dimension of our material world. The talk proposes that we need to uncover the historical development of these “unmaking” processes. For one, this will enrich our – so far one-sided – histories of the material world. For another, it will help us to handle a yet unsolved problem of the so-called Anthropocene, namely where to put all the materials, emissions, and wastes that we have produced so far – a pivotal challenge that the environmental historian Joel Tarr has termed the “search for the ultimate sink”.

III. Urbanizing Infrastructures

Wednesday, March 18

palladium (2.05)

Chair: Donna Drucker &

Sophie Schramm

9.45 – 11 am

Heike Weber (Wuppertal)

Unmaking Technology: The Political Ecology of Old Stuff, Infrastructures and Leftovers

Çağatay Keskinok

The Change in Urban Policy

Frameworks in Turkey since the mid-1980s

11.15 am – 12.30 pm

Dejan Petkov (Darmstadt)

Tramway Systems Development

Annika Wolff (Darmstadt)

Europeanization of Waste Prevention

2 – 3.15 pm

Heike Weber (Wuppertal)

Waste Matters: The Case of 20th

Century Landfilling in Germany

Gül Tucaltan (Darmstadt)

Urbanization of Garbage in Ankara, Turkey

3.30 – 4.45 pm

Pauline Gabillet (Paris)

Local Public Utilities and Urban

Energy Governance in France

Antje Matern (Darmstadt)

Comment

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The Change in Urban Policy Frameworks in Turkey since the mid-1980s

Çağatay Keskinok, Prof. Dr.

Department of City and Regional Planning, Middle East Technical University, Ankara, Turkey

In Turkey, by the mid 1980s, starting with the privatization of public service production and provision, and following with the privatization of State Economic Enterprises and the State Factories, the impacts of privatization policies together with deregulation policies have been the boom in real estate and construction sectors. This resulted in deindustrialization of the economy and the flow of capital from primary circuit activities of capital accumulation to secondary circuit activities, that is, real estate and construction sectors. These have appeared as the main sources of both profit and rent extraction since the mid-1990s. In the beginning of 2000s, economical domain of political power seem to be structured around the production and distribution of the sources of profit and rent extraction. This marks a radical change in urban policy framework in Turkey.

Privatization policies were accompanied with deregulation of planning procedures and zoning controls. The impact of these deregulation policies has been uncontrolled urban growth both at regional and urban levels (i.e. urban sprawl, production of excessive amounts of planned lands etc.). This uncontrolled and generally local government-promoted and supported urban growth brings about irrational and unsustainable land use patterns. Turkish cities, especially, the larger cities thus suffer from the excessive amounts of planned lands.

The new urban development framework is based on the narrow rationality of real estate markets. Thus there has been a shift from long-term, public interest-based frameworks and rationalities to short-term and private benefits; from social policy-oriented land development frameworks to profit-oriented land management options.

Tramway Systems Development

Dejan Petkov

PhD Candidate, Research Training Group Topology of Technology

After decades of focusing on the promotion of individual motor car traffic, an expansion of public transport services has been strongly demanded in the last thirty years, whereas the tramway, being an environmentally sustainable and customer-friendly means of transport, plays an important role in the realization of this goal. The uptrend in the development of light rail systems, which has been observed since the 1980s, is often called the rebirth of the light rail.

As opposed to the earlier dominating conceptualization of transport issues as problems which are to be solved technically, the rebirth of the light rail systems is understood here as a complex socio-technical phenomenon, which is shaped by urban and social demands and developments. Given a generally unchanged propulsion technology of light rail over the years, its large technical system and its perception have undergone a substantial transformation in the framework of the institutional and fiscal set-up, the land use planning and regulation, as well as the overall travel patterns. Hence, there is a need for a comprehensive perspective on the rebirth of light rail systems, which goes beyond the general transport planning, operational and technical aspects.

This paper adopts, therefore, a socio-technical perspective on the phenomenon and contributes to the understanding of the plans and policies behind the salient large-scale infrastructure projects in some European cities. The context-sensitive analysis of the complex constellations of urban and techno-economic issues comprises the tramway rebirth in discursive, institutional and practical terms, and proposes a balanced account of the transport system development, which could be useful for future planning.

The response will touch upon the expectations that planners and policymakers have from any LRT investment: modal shift to public transport, reduction in congestion, significant land-use change through new development (expected to be stimulated by LRT) or economic revitalisation and regeneration (again expected to be caused by the new LRT)... But none of these happens unless the system is planned as a part of a coherent policy package that introduces other supporting projects and vigorous urban planning policies and schemes. This point will be well illustrated through some cases; through some specific (entertaining!) stories from the experience in US cities and UK to a certain extent. The Turkish experience will be added to that too.

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Antje Matern (Darmstadt)
Comment

Europeanization of Waste Prevention

Annika Wolff

TU Darmstadt

Waste prevention and preparing for re-use play a pivotal role in EU waste law. They are at the top of the revised Waste-Framework-Directive's waste hierarchy and prioritized before recycling, other recovery operations and disposal. Member states are now required to establish national waste prevention programs that set out objectives in order to break the link between economic growth and the environmental impacts associated with the generation of waste. Taken seriously, this would entail a fundamental transformation of solid waste management with its economic, institutional and social elements – a transition towards integrated resource management and a genuine circular economy.

But when it comes to the implementation of general EU-environmental law, it is well known that it varies greatly across national contexts and that implementation deficits occur regularly. Waste policies, however, have until now not been the focus of such implementation studies. The German case is of particular interest, as solid waste seems to be a resolved issue in public debate due to high recycling and incineration rates. Because of these existing technological configurations together with dominant institutional, economic and organizational structures it is very questionable whether a fundamental change of the socio-technical regime of waste infrastructure towards prevention and re-use will take place.

The central question therefore is how prevention and re-use policies are translated from the EU-level into the German context and why, how and to what degree the national waste regime adapts to EU policy. In a second step, the spatial dimension of the adjustment process is highlighted as different municipal waste regimes might have different answers to the adaptation pressure.

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Waste Matters: The Case of 20th Century Landfilling in Germany

Prof. Dr. Heike Weber

Technik- und Umweltgeschichte, Bergische Universität Wuppertal

The contribution concentrates on the 20th century landfill as a key landmark in the urban periphery, as inverse icon of mass consumer culture and as the century's main method to remove urban waste. For the case of (West) German cities, I will use the „urban dump“ as a lens to analyse the relation between city, nature and material stuff over the course of the 20th century. Seen over the course of the 20th century, the changing discourse on and the changing practices of landfilling reflect major turning points in the history of city-periphery relations, of public health and hygiene as well as in the history of environment and consumption and more specifically, in the techniques and science of solid waste management. Dumps interrupted the urban metabolism; they were meant to urbanize nature; but they turned into actors on their own terms, confronting us with toxic agency and unforeseen inner behaviours.

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Urbanization of Garbage in Ankara, Turkey

Gül Tuçaltan

PhD Candidate, Research Training Group Topology of Technology

In Turkey, since the 1930s, there have been various legislative actions within the arena of MSW management. However, it is not up till the 2000s that concrete interventions for the transformation of the MSW management system have taken place within the urban agenda. Since the beginning of the 2000s, a number of sanitary landfills along with integrated waste management facilities have come on the agenda to replace the wild dumping areas. Additionally, legal regulations in line with the EU legislation have been introduced. However, it is still not possible to indicate to a systematic approach to solid waste management in Turkey. Under such context, the aim of this article is to explore and delineate the policies and politics of MSW in Turkey with regards to the relations between the processes of urbanization, urban development and planning, and the territorialization, de-territorialization and re-territorialization of municipal solid waste spaces in Ankara, Turkey.

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Pauline Gabillet (Paris)

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Antje Matern (Darmstadt)

Comment

Local Public Utilities and the Construction of Urban Energy Governance in France

Pauline Gabillet

PhD candidate, Ecole des Ponts ParisTech

Historically, energy in France has been a national issue, based on the interactions between state administration and the publicly-owned national company EDF. However, the simultaneous movements of liberalization and growing interest for energy-climate issues questions the role of cities in relation to energy technical networks. This transformation is studied through the situation of local public utilities in the French electrical sector, which are owned by local authorities and supply electricity in the urban area concerned. Within this framework, I study the cities' political capacity to govern these public local utilities in Grenoble and Metz. This brings us to two questions, which will provide the framework for my presentation: What is the local authorities' capacity to "urbanize" the energy-climate issue to define their own objectives? And how is the energy "territorialized" in these cities, which capacity do they have to steer their local utilities, which are mainly regulated at the national level, on the basis of these objectives? This has enabled us to define the characteristics of the urban energy governance in the two French cities studied.

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Comment

Antje Matern

PostDoc, IWAR, TU Darmstadt

III. Urbanizing Infrastructures

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9.45 – 11 am

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Comment

The Coworking Evolution: Notes on the History of Coworking Spaces, their Species Lines, Selective Pressures, and Current Development

Kathring Passig
Berlin

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Comment

Michael Liegl
Cemore Lancaster and Hamburg University

Evening Talk

Wednesday, March 18
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titanium 2 (2.03 | 2.04)
Chair: Mascha Will-Zocholl

Kathrin Passig (Berlin)
The Coworking Evolution: Notes on
the History of Coworking Spaces,
their Species Lines, Selective
Pressures, and Current Development

Michael Liegl
Comment

Die Technisierung des Leibes

Sachlogik, kultureller Raum und Entfremdung

Objective Technology and Subjective Body

Logic of Objects, Cultural Space and Alienation

Oliver Honer

PhD Candidate, Research Training Group Topology of Technology

Innerhalb der letzten Jahrzehnte ließ sich eine Vielzahl von technologischen Neuerungen im Bereich der Medizin beobachten. Die Bandbreite reicht hierbei von der Tiefen Hirnstimulation (THS, „Hirnschrittmacher“), kosmetischer Chirurgie, Techniken der Fortpflanzungsmedizin („social freezing“), leistungssteigernden Medikamenten, Gendiagnostik und Gen-Therapie bis hin zu Experimenten mit bionischen Prothesen und Exoskeletten. Gemeinsam ist diesen Technologien, dass sie Anwendungsmöglichkeiten bieten, Patienten nicht nur von Krankheiten zu heilen, sondern auch Fähigkeiten zu steigern und Eigenschaften zu optimieren. Damit werden jedoch die normativen Grundkategorien (krank/gesund) der medizinischen Praxis in Frage gestellt.

Technikinduziert meldet sich damit ein altes Problem der Medizinphilosophie: Die definitorischen Grenzen von Krankheit und Gesundheit sind labiler als es der alltägliche Sprachgebrauch suggeriert – nicht zuletzt, wenn psychische und individuelle Faktoren berücksichtigt werden. Will die Medizin verbessernde Eingriffe („Enhancement“) und deren spezielle ethische Bewertung von ihrer eigentlichen, therapeutischen Aufgabe abgrenzen, muss sie, wie Christian Lenk argumentiert, sich ihrer Grundbegriffe neu versichern. Gleichzeitig stellt Matthias Kettner in kritischer Absicht die These auf, dass wir durch neue technische Möglichkeiten und die Ausrichtung des Gesundheitssektors nach ökonomischen Gesichtspunkten Tendenzen eines neuen orientierenden Codes erleben, der Entwicklung von einer „kurativen Medizin“ zu einer „wunscherfüllenden Medizin“ mit entsprechenden Folgen für das Arzt-Patientenverhältnis. Was hier im Lichte neuer Technologien verhandelt wird, ist die Logik medizinischen Handelns. Betroffen sind nicht nur die behandelten Individuen selbst, sondern auch ein gesellschaftliches Subsystem sowie der Mensch als Gattungswesen.

Über die spezifische Rolle der Technik lässt sich auf metaphysischer Ebene unter dem von Georg Simmel geprägten Titel der „Tragödie der Kultur“ reflektieren. Gemeint ist damit die notwendige Möglichkeit einer Entwicklung, die zum Konflikt zwischen kulturellen Formen führt, deren historischer Austragungsort das leiblich-endliche Individuum darstellt.

Dies führt zu der Konsequenz, dass der Kultivierungsprozess des Individuums stets auch die Möglichkeit des Scheiterns, d. h. seiner Entfremdung in der Kultur, beinhaltet. Die Grundlage hierfür sieht Simmel in der „kulturellen Logik der Objekte“, deren Konzeptualisierung für das vorliegende Problem der Enhancement-Technologien fruchtbar gemacht werden soll. Objekte als Produkt kulturellen Schaffens werden als materialisierte Verhältnisse, d. h. als Symbole, begriffen, die im Gebrauch oder im Bezug auf jene Objekte aktualisiert werden. Auf höherer Ebene wiederum symbolisieren die Objekte gleichzeitig Typen von Verhältnissen, deren Einheitlichkeit in einem jeweiligen Formungsprinzip (terminus a quo) besteht.

Wenn nun Techniken Möglichkeitsräume eröffnen, sind diese unmittelbar durch eingeschriebene Zweck-Mittel-Verhältnisse zu teleologischen Räumen strukturiert. Die Formungsprinzipien, die in diesen Räumen verkörpert werden, bieten nun ihrerseits eine übergeordnete sachliche Orientierung. Da kulturelle Objekte stets mehr Möglichkeiten eröffnen, d. h. einen Sinnüberschuss besitzen, der nicht intentional rückführbar, allerdings symbolisch deutbar und wirksam ist, lässt sich ein Modellierungsvorschlag für eine Sachlogik gewinnen. Der Anspruch ist es hierbei technikdeterministische Fallstricke zu umgehen, aber dennoch ein Erklärungsmodell zu bieten, wie (An)Forderungen an die Individuen gestellt werden, die im sozial-technischen Kontexten mit Sanktionsmöglichkeiten ausgestattet sein können. Enhancement-Technologien, lassen sich so nach einem spezifischen orientiertem Verhältnis zum menschlichen Leib befragen, das selbst technisch in den Leib eingeschrieben wird und so einen Angriffspunkt im Individuum besitzt. Infrage gestellt ist damit nicht zuletzt die Funktion des Leibes als Orientierungsorgan.

IV. Shaping Lives and Life Forms

Thursday, March 19

chromium (2.02)

Chair: Suzana Alsancar

9.45 – 11 am

Oliver Honer (Darmstadt)

Objective Technology and

Subjective Body. Logic of Objects,

Cultural Space and Alienation

Matthias Kettner (Witten/Herdecke)

& Christian Lenk (Ulm)

Comments

11.15 am – 12.30 pm

Bahar Sen (Darmstadt)

Lived Space: Lefebvre's „Non-

Intelligible and Irrational Residuum“

Irene Breuer (Wuppertal)

Husserl and Merleau-Ponty: Body

Scheme and Lived Space in

Architecture

2 – 3.15 pm

Jenny Bauer (Darmstadt)

Disrupted Relations: Bodies,

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Fraya Frehse (São Paulo)

When Pedestrians' Body Rhythms

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3.30 – 4.45 pm

Alexander Friedrich (Darmstadt)

The Cryosphere and the Bioeconomy

of Global Cold Storage Networks

Bronwyn Parry (King's College

London)

tba

Comments

PD Dr. phil. Christian Lenk

Institut für Geschichte, Theorie und Ethik der Medizin der Universität Ulm

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**Erlebter Raum:
Lefebvres „nichtintelligibles und irrationales Residuum“
Lived Space:
Lefebvre's „non-intelligible and irrational residuum“**

Bahar Sen

PhD Candidate, Research Training Group Topology of Technology

Für Lefebvre bedeutet Urbanisierung nicht nur die Ausdehnung städtischer Gebiete oder die Vorherrschaft der städtischen über die ländliche und bäuerliche Wirklichkeit. Das Urbane ist ein „virtuelles Objekt“ und eine stets im Werden begriffene universalistische Form. Diese primär mentale Form entwickelt sich zur „zweiten Natur“, wird zum „Träger von Wahrheit“ und steigt schließlich zur neuen Totalität empor. In ihr kommen die Verwirklichung simulierten Lebens, die Transformation einstiger Mythen sowie völlige Entfremdung gleichermaßen zum Ausdruck. Wird sie homogenisierenden Tendenzen des Staates oder Marktes unterworfen, geht die „konkrete Komplexität der Praxis, des Menschen und der Welt“ verloren. Doch bei Lefebvre gibt es stets etwas, das sich der Reduktion, der Quantifizierung und der Abstraktion systemischer Ordnungen entzieht: das Andere, das Alltägliche, das Residuum. Es ist dieses leiblich konstituierte Residuum, was das Werden erst in Gang setzt und wodurch die (urbane) „Praxis“ ein schöpferisches Moment gewinnt. Im Kontext konkret urbaner Betrachtungen kommt äquivalent hierzu dem „Wohnraum“ eine besondere Bedeutung zu, denn nach Lefebvre muss er als „Quelle, als Grundlage, als essentielle Funktionalität und Transfunktionalität angesehen werden“. Im Mittelpunkt des Vortrages steht die Ausgestaltung des Zusammenhanges zwischen Lefebvres resistentem Residuum und seiner Konzeption des erlebten Raumes.

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Husserl und Merleau-Ponty: Leibscheema und Konstitution des gelebten Raumes. Ihr architektonischer Ausdruck.

Husserl and Merleau-Ponty: Body scheme and the constitution of lived space. An architectural reflection.

Irene Breuer

Theoretische Philosophie, Universität Wuppertal

Die Philosophin und Architektin Irene Breuer wird die von Bahar Sen angestellten Lefebvre-spezifischen Überlegungen zum „erlebten Raum“ in einen Kontext klassischer phänomenologischer Ansätze stellen, die sich primär mit dem Spannungsfeld von Raum und Leib beschäftigen. Folgender Gedankengang wird dabei entfaltet:

In der Lebenswelt haben wir nicht bloß mit einer materiellen, sondern auch mit einer lebendigen Natur zu tun. Husserl führt eine zweite Naturordnung ein: der Leib, der eine eigentümliche Verflechtung von einer materiellen und einer psychischen Realität aufweist. Das Leibscheema – die „bloß mit ‚sinnlichen‘ Qualitäten erfüllte Raumgestalt“ – übt für Husserl eine konstitutive Doppelfunktion aus: Die leiblichen Kinästhesen konstituieren die ihnen äußerlichen Dinge und den Raum zugleich, während die leiblichen Empfindnisse den Leib taktuell konstituieren. Beide Sphären werden durch das intentionale Bewusstsein verbunden. Der Leib ist somit die Quelle des ganzen Wahrnehmungsfeldes, das sich perspektivistisch um ihn als Zentrum organisiert. Ort und Leib sind ineinander verwoben: Der Leib ist verortet, der Raumort ist verleiblicht. Diese Konzeption einer anthropozentrisch-organischen Widerspiegelung der Struktur des Leibes im Raume erzeugt eine harmonische Architektur, die symbolische Werte in der Form von habituellen Typen repräsentiert: Der Raum ist Objekt einer Vorstellung – ein Bild –, das Sehen begrenzt sich zu einer Rekognition.

Merleau-Pontys Auffassung des Eigenleibes ist keine Fortsetzung des Husserlschen Ansatzes. Seine Neuinterpretation des In-der-Welt-Seins Heideggers mündet in einer nicht-dialektischen Verflechtung von Leib und Existenz – einen Weltbezug, der auf leibhafter Erfahrung gründet und präobjektiv ist. In seinen späten Schriften wird der menschliche Leib, der bei Husserl als Organ der Wahrnehmung galt, zum Fleisch der Welt als inkarniertes sinnliches Prinzip. Während das Fleisch eine ursprüngliche Örtlichkeit definiert, ist die Leiblichkeit angesichts seiner Handlungen räumlich situiert. Es handelt sich um eine leibliche Situations- und Bewegungsräumlichkeit, die sich nicht perspektivistisch – eine reine Konvention für Merleau-Ponty –, sondern in der Tiefe in der Weise einer Simultaneität von Heterogenem organisiert. Es gibt somit keine Koinzidenz zwischen Blick und Sichtbarem, sondern „vielfältige Chiasmen“, die eine dissonante und vieldeutige Architektur hervorbringen. Der Raum wird leiblich erlebt, das Sehen erweitert sich zu einer Erfindung.

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PostDoc, Research Training Group Topology of Technology



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Fraya Frehse

Department of Sociology, Universidade de São Paulo

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The Cryosphere and the Bioeconomy

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Is there anything that human bodies regularly moving through or physically staying in public streets and squares may reveal about the historical dynamics of sociocultural change in present-day cities, i.e. in sociospatial realities more and more explicitly faced with the contradictory processes implicit in the economic, social and cultural aspects that accompany the ongoing geographic expansion of cities? The answer is definitely a positive one when one scrutinizes pedestrians' body movements in those urban spaces by combining two methodological tools Henri Lefebvre (1901-1991) developed separately in order to analytically depict and to conceptually interpret the ways in which times entangle with spaces in everyday life. I mean, on the one hand, rhythmanalysis, which the French sociologist only detailed in a book published posthumously, *Éléments de rythmanalyse* (1992), and, on the other hand, the regressive-progressive method, which Lefebvre specified quite forty years earlier in an article on "Perspectives de la sociologie rurale" (1953). Concerned with analytically discerning the sequences of repetitions that impregnate as well as surround the human body as one space 'in and through' space, rhythmanalysis may at a first glance seem very distant from the regressive-progressive approach. By holding an operational and an interpretive dimension which both become manifest in three research steps (the so-called 'descriptive moment', the 'analytical-regressive' and the 'historical-genetic' ones), the regressive-progressive method indeed intends to grasp the dialectics implicit in the way synchronic and diachronic social processes coexist in any empirically given research 'field', and thus to 'explain' the specific historical possibilities of social change there. Even though Lefebvre himself did not articulate the regressive-progressive approach with rhythmanalysis, sparse references to both instruments meaningfully enough appear amidst the author's methodological ponderings on the interaction between time and space in urban contexts. Those remarks make it possible to infer that the regressive-regressive method is particularly useful when it comes to analytically depicting and to interpreting the rhythms of urban historical processes from the standpoint of the human body's rhythms. Inspired by all these ponderings, this paper aims to demonstrate the methodological gains that particularly sociological research on current urbanization processes may have from a regressive-progressive rhythmanalysis of the pedestrians body movements in urban streets and squares. By focusing on empirical data of an ongoing research of mine about present-day downtown São Paulo, the text first clarifies what the rhythmanalytical and the regressive-progressive approaches are about, and locate both in Lefebvre's work and in the academic debate on the pedestrians' uses of public spaces in current Western cities. In the second section, the ethnographic and documentary data brought to the fore by a rhythmanalysis of specific body movements by pedestrians in the current São Paulo central streets and squares are examined through Lefebvre's regressive-progressive lens. Thus, in the last section, specifically two methodological contributions of a regressive-progressive rhythmanalysis to sociological research on present urbanization processes come to light. On the one hand, the approach points to the cognitive relevance of the anthropological and historical estrangement of one's (and one's society) own day-to-day body rhythms in streets and squares, when it comes to grasping the historical possibilities of sociocultural change implicit in current urban everyday life. Therefore, on the other hand, it encourages sociology to face a still unusual research object: the historicity of body behaviour rules in urban public spaces.

The Cryosphere and the Bioeconomy of Global Cold Storage Networks

Alexander Friedrich

PostDoc, Research Training Group Topology of Technology

Mechanical chilling and freezing contribute to preserve and reproduce organic entities as well as to save, improve, and shape our life. With the social implementation of artificial coldness in the late 19th century, the connection of cold chains to complex cooling networks, and the recent formation of the cryobank industry, a socio-technical formation emerged: the „cryosphere“ – a techno-spatial apparatus (dispositif) indispensable for modern societies. As a global network of biocentric cold storage technologies, the cryosphere (1) enabled modern societies to provide fresh food from all over the world at any time, (2) disconnected urban consumption and living patterns from local seasonal, climatic, and spatial constraints, and (3) allowed urbanized areas to grow rapidly. With the progress of cryobiology and high-performance cold storage devices, the globalization of the cooling chain network gave rise to the development and connection of cryobanks leading to (4) the formation of the cryobank industry since the 1970s, (5) the rise of reproductive and regenerative medicine due to the possibility of cryopreserving organic matter, and (6) a global-scale economy of trading or donating organs and tissues. Cryobanks are powerful nodes or hubs in the global network of biological commodification and valorization. The main purpose of these centers is, however, not only to accumulate and process bioinformation but to keep highly desired and contested living organic matter fresh for later use by suspending it from the natural life cycle. To achieve this aim, a whole new, thermo-dynamical space has to be maintained and perfected: the global cryosphere, enabling a new state or form of life: the „cryogenic life“. In this panel session, some techno-spatial, bio-economical and philosophical implications of this development will be addressed.

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The Mobilisation of Cryotechnologies: Exploring the Biopolitics of the ‘Walking Egg’ Project

Bronwyn Parry

King's College London

Connecting my earlier work on the history of cryopreservation to my current research on the globalisation of assisted fertility I employ this paper to explore how the most recent and advanced forms of cryotechnology are facilitating the creation of a “distributed economy of reproduction”. Whilst the Latourian ‘Centres of Calculation’ were initially privileged spaces for the creation and use of these sophisticated technologies an argument can be made that we are now entering a quietly revolutionary phase characterised by the democratisation of access to cryo technologies. Taking the ‘Walking Egg’ project as an illustrative example I consider the implication that the development and dissemination of mobile cryotechnologies has for the wider biopolitics of population formation. In so doing I give consideration to the question of whose interests the project will ultimately serve: currently disenfranchised consumers in the developing world or biosocial elites in the North’s metropolitan centres? In making this assessment I reveal the project’s capacity to enrol ever wider constituencies, some located in the most disadvantaged corners of the world, into the geographically extensive value chains of the ever burgeoning ART economy – an aim achieved, in part, by initiating them into a wider Western discourse of reproductive rights.

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Bronwyn Parry (King’s College

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Activity recognition – From the Perspectives of Computer Science and Human Sciences

Kristof van Laerhoven

Technische Fakultät, Universität Freiburg

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Comment

Josef Wiemeyer

Institut für Sportwissenschaft, TU Darmstadt

V. Current Spaces of Human-Technology Interaction

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11.15 am – 12.30 pm

Manuel Dietrich (Darmstadt)

Applying Philosophical Theory for Ubiquitous Computing Design

Yvonne Rogers (UC London)

Comment

2 – 3.15 pm

David Waldecker (Darmstadt)

Music as Technique and Technology. Adorno's Concept of Technology and the Sociology of Music

Ruth Sonderegger (UdK Wien)

Comment

Canceled

Herdis Hagen (Darmstadt)

Combat Spaces / Combat Dreams: Spatialities of Future Warfare

Dierk Spreen (Paderborn)

Comment

Applying Philosophical Theory for Ubiquitous Computing Design

Manuel Dietrich

PhD Candidate, Research Training Group Topology of Technology

In my talk I will discuss the role of design theory in the field of ubiquitous computing regarding applications in wearable activity recognition. It is a mutual interdisciplinary approach, based both on philosophical concepts and concrete design projects in computer science. Activity recognition devices are computer systems which are capable to detect human actions. When using “wearables” for activity detection the devices are near or on the body and also often designed for long-term usage with the goal of a 24/7 assistance (“everywhere and anytime”). In my work I focus on applications where the technical devices are used for a long-term observation with the purpose that users can reflect on their activity data.

Activity recognition is a current, fast developing computer science research field and is especially discussed in the ubiquitous computing community. Ubiquitous computing which is mainly a technical research field, has since its beginning an interdisciplinary dimension which includes a vision of a valuable technologies which supports persons in their everyday life. A design theory can, beside technical concepts and methods of designing things, discuss in which (valuable) way technical design should support people. This especially becomes more important when beside lifestyle applications (e.g. fitness-tools), more serious applications in health and elder care get more common and complex.

A central question for me is, which role philosophical thoughts can play in the design of computing devices for everyday life. With this question, I would refer to a quote of Yvonne Rogers (HCI Theories), in which she exemplifies the role of theories regarding the challenges of current human-computer interaction research. “It involves moving between the big picture and the details of a research question, using a combination of strategies, design methods and theories. For example, this could involve the application of philosophy theory to technological innovation, where conceptual philosophical analysis is fed into the design process and the experiences of being engaged in user studies are fed back into the philosophical analyses” (Rogers, 86f).

Regarding the applications of reflecting on personal activity data, I am interested in *giving insights into the relation between person and their actions*. For that, I work with concepts of the philosophical theory of action. Based on that, I will analyze *how this relation can change in using wearable activity recognition* and present two projects (visualization techniques for activity based self-reflection and diabetes self-management) in which the wider philosophical thoughts are included in the system design.

To conclude, the following aspects I will especially discuss in my talk:

- (1) The role of theoretical concepts out of social science and philosophy for the practical design of computing systems. Examples for implementation.
- (2) Is there a visionary direction (utopian claim) in (ubiquitous) technology-design? Is there a need for an “intellectual infrastructure” to discuss visions and theory?

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Comment

Yvonne Rogers

University College London

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Music as Technique and Technology Adorno's Concept of Technology and the Sociology of Music

David Waldecker

Research Training Group Topology of Technology

This talk presents a systematic look at the relationship of musical performance, technology, and space with special emphasis on Adorno's early work on radio. While the burgeoning field of sound studies has seen a lot of research on the relation of hearing and sound to technology, little has been written on music, as aestheticized sound, and technology. In reference to Adorno's treatment of the radio broadcast of a Beethoven symphony, I argue that this treatment shows how important it is to include musicological, spatial and technological aspects in the analysis of everyday musical life. In his analysis, the radio broadcast does not only transform the listener but the music, too.

Adorno's analysis of music is itself full of socio-technical descriptors, leading to a contrasting of the musical forces of production and relations of production. While a lot of sociology tries to show that music is nothing but society – Bourdieu deals with music a status marker, DeNora as a coping strategy and Hennion as an situationally produced emotional drug –, I want to suggest with Adorno that music can only be understood as simultaneously apart from and a part of society. In detailing possible and actual modes of listening and musicking and their relation to technology, Adorno reminds us of the untapped potentials of music – hinting at the obscured possibility of a different society.

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Comment

Ruth Sonderegger

Universität der Künste Wien

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Kampf(t)räume: Räumlichkeiten zukünftiger Kriege

Combat Spaces / Combat Dreams: Spatialities of Future Warfare

Herdis Hagen

PhD Candidate, Research Training Group Topology of Technology

Canceled

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Comment

Dirk Spreen

Paderborn

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How Interdisciplinary Approaches on
Interaction Design in Ubiquitous
Computing Should Be Practiced and
which Role Theory Can and Should
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Jenseits der Idylle: Landschaften zwischen Energie und Bild Beyond idyllic Spatiality: Landscapes between Energy and Image

Nora Thorade

Ruhr-University Bochum, Historical Institute

Nicole Hesse

PhD Candidate, Research Training Group Topology of Technology

Die Nutzung von Energiequellen ist in Geschichte und Gegenwart verschiedenen Konflikten unterworfen und steht immer in einem Spannungsverhältnis zwischen Nutzen und Kosten. Dabei ist die Wahl der Energiebasis einer Gesellschaft nicht frei, sondern immer auch abhängig von den natürlichen Gegebenheiten. Erst mit der elektrischen Energie wurde die Energieversorgung vom Ort der Produktion entkoppelt. Seit Ende des 18. Jahrhunderts beherrschten dabei die Auswirkungen von Energieproduktion und -transport auf ländliche und städtische Landschaften immer wieder öffentlich geführte Diskurse. So sehr die Energieressourcen charakteristische Unterschiede im Bereich ihrer Materialität, Verfügbarkeit, räumlicher Bindung, Endlichkeit und Nachhaltigkeit aufweisen, so ähneln sich die Argumentationslinien: die räumliche Nähe zur Ressource und den Orten der Nutzung, die Beziehungen, aber auch der Stand des Wissens, die Einstellung zu technischem Fortschritt oder politische Konstellationen sind dabei relevante Faktoren. Die verschiedenen Perspektiven auf Ressourcen und ihre Nutzungsmöglichkeiten bilden unterschiedliche Repräsentationen von Energielandschaften heraus. In unserem Vortrag schauen wir zurück auf Transformationen des Energiesystems in Form einer (visuellen) Geschichte der Wind- und Steinkohlelandschaften.

Die Vorstellungen im 18. und 19. Jahrhundert von den Landschaften der Energieressourcen Wind und Steinkohle waren ebenso gegensätzlich wie die Ressourcen selbst: der reine saubere Wind, der in ländlichen Gegenden für verschiedene (klein)gewerbliche Zwecke genutzt wurde, stand der dreckigen schwarzen Steinkohle gegenüber, deren Abbau und Verwendung graue Industriegebiete hervorgebracht hat. Während die Steinkohle spätestens seit der Einführung der Eisenbahn und Dampfschifffahrt auch jenseits ihrer Abbaugelände große Verwendung fand, war die Nutzung der Windenergie bisher stärker standortgebunden.

Die Repräsentationen von Windenergie und Steinkohle weisen aber auch Gemeinsamkeiten auf: in beiden Fällen unterscheidet sich die Wahrnehmung in Abhängigkeit der räumlichen aber auch der zeitlichen Distanz. Die „alte“ Windenergienutzung in Form der Windmühlen ist belegt mit romantischen Vorstellungen genauso wie die Windparks entlang der Autobahnen für die Vorbeifahrenden ein sichtbares und positives Zeichen der grünen Energiewende sind. Je näher man an die Windräder herantritt, desto stärker mehren sich die negativen Stimmen. Vorindustriell, handwerklich geprägter Einklang von Mensch und Natur steht der technisierten Zerstörung von Landschaft, Tierwelt und Mensch gegenüber. Als Symbol für den industriellen Fortschritt wird die Steinkohle mit dem wirtschaftlichen Aufstieg ganzer Regionen verbunden und steht gleichzeitig für eine wirtschaftlich und gesellschaftlich akzeptierte Umweltverschmutzung. Dort „wo die Sonne verstaubt“, entstanden Räume, deren Schmutz einerseits zu einem Symbol für ehrliche, harte Arbeit wurde und andererseits den negativen Kern in der Fremdwahrnehmung bildete.

Im Rahmen von TechnoSpaces fokussieren wir Imaginationen von Energielandschaften und nähern uns über mentale und visuelle Bilder der diskursiven und materiellen Verfasstheit sich wandelnder technisierter Räume.

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Comment

Ute Hasenöhr

Universität Innsbruck

VI. Imagine: Visual Entities

Thursday, March 19

palladium (2.05) | Chair: Catarina

Caetano da Rosa & Jakob Birken

9.45 – 11 pm

Nicole Hesse (Darmstadt) & Nora Thorade (Bochum)

Beyond the Idylle: Landscapes between Energy and Image
Ute Hasenöhr (Innsbruck)

Comment

11.15 am – 12.30 pm

Silke Vetter-Schultheiss (Darmstadt)

Urbanity – Landscape – Nature.

Visualizing the FRG on Stamps

Anna-Katharina Wöbse (Bielefeld)

Comment

2 – 3.15 pm

Sina Keesser (Darmstadt)

Depicted Space – The Barbican as Media Phenomenon

Jens Jäger (Köln)

Historical Science and Images –

Images as History

3.30 – 4.45 pm

Andreas Brenneis (Darmstadt)

Metaphors – Figures of Speech – Topoi

Lutz Danneberg (HU Berlin)

Comment

Stadt – Landschaft – Natur. Das Bild der BRD auf Briefmarken Urbanity – Landscape – Nature. Visualizing the FRG on Stamps

Silke Vetter-Schultheiß

PhD Candidate, Research Training Group Topology of Technology

Anhand der Ausgabepolitik von westdeutschen Briefmarken lässt sich nachzeichnen, wie nach dem Zweiten Weltkrieg auch mittels dieser Zahlungsbelege um die Gestaltung der 1949 gegründeten Bundesrepublik Deutschland gerungen wurde. Mitglieder des Ministeriums für das Post- und Fernmeldewesen und der Regierung, der Bundestag wie auch Privatpersonen und Vertreter/innen von Körperschaften diskutierten darüber, welche Funktionen diesen „kleinen Kunstwerken“ innewohnen und welcher zusätzliche Wert ihnen neben dem postalischen beigemessen werden kann.

Mit Hilfe von Briefmarken aus dem Bereich des Natur- und Umweltschutzes sowie den teils normativ, teils deskriptiv geführten Debatten, ob und wie sich dieses Thema für Motive auf Postwertzeichen eignet, zeichnet dieser Vortrag exemplarisch ein Bild der deutschen Umweltgeschichte zwischen 1950 und 1990. Der Fokus liegt dabei auf Marken, die für den Schutz von Natur- und/oder Stadt-Landschaft bestimmt waren.

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Comment

Anna-Katharina Wöbse

Universität Bielefeld

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Raum im Bild – The Barbican als Medienphänomen Depicted Space – The Barbican as Media Phenomenon

Sina Keesser

PhD Candidate, Research Training Group Topology of Technology

Als Doktorandin des Graduiertenkollegs Topologie der Technik beschäftige ich mich mit der Professionsgeschichte des Architekten zwischen 1950-1980. Um die Architekturpraxis im 20. Jahrhunderts adäquat beschreiben zu können, ist es meines Erachtens dringend notwendig, sie vor dem Hintergrund einer Mediengesellschaft zu betrachten, in der Architektur primär anhand technisch reproduzierter Bilder diskutiert und rezensiert wurde. Dies beeinflusste die Alltagspraxis von Architekten, die Erwartungen auf Seiten der Auftraggeber wie auch die öffentliche Meinung über bestimmte Bauten.

In meinem Vortrag möchte ich anhand eines konkreten Bauprojekts die Rolle der Printmedien in Planungsdebatten beleuchten. The Barbican nennt sich ein multifunktionaler Gebäudekomplex im Osten Londons, dessen Bauphase sich über die Jahre 1953-1982 erstreckte. Konzipiert als New Town im Stadtzentrum vereint dieser nahezu eigenständige Stadtteil Wohnungsbauten mit Kultur-, Bildungs- und Freizeiteinrichtungen. Im Vortrag wird es um die mediale Repräsentation dieses Projekts in Zeitungen und Zeitschriften gehen und anhand der publizierten Abbildungen soll die öffentliche Debatte, die sich darum entwickelte, nachvollzogen werden. Der Schwerpunkt wird dabei auf der Frage liegen, auf welche Weise diese Bilder die Diskussionen mit strukturierten und auf die bauliche Umsetzung einwirkten.

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Geschichtswissenschaft und Bilder – Bilder als Geschichte Historical Science and Images – Images as History

Jens Jäger

Historisches Institut, Universität zu Köln

In der Geschichtswissenschaft herrschte zwar niemals eine ausgesprochene Bilderfeindlichkeit, doch beschränkten sich die ernsthaften Versuche, Bilder als Dokumente in die historische Forschung einzubeziehen, eher auf Randgebiete und Ausnahmen. Allerdings lag dies keineswegs daran, dass ihnen der Status eines Dokuments abgesprochen wurde; immerhin wurden schon in Lehrbüchern des 19. Jahrhunderts visuelle Quellen aufgeführt. Anerkennung fanden Bilder mehr als Beiwerk, Reproduktionen von Quellen oder bei Forschern, die ohnehin Grenzgänger zwischen den Disziplinen waren – etwa bei Karl Lamprecht (1856-1915) oder Georg Dehio (1850-1932), seines Zeichens Kunsthistoriker. Das Problem lag in den Konzeptionen von Geschichtswissenschaft begründet, die bis weit nach 1945 gängig waren. Gegenwärtig haben sich Bildquellen in der historischen Forschung etabliert – mit Ansätzen der Historischen Bildkunde, Historischen Bildforschung und der Visual History wird der Umgang mit und Nutzen von Bildquellen breit rezipiert. Grundsätzlich werden Bilder als subjektive “Äußerungen” erkannt aber ebenso als Information über vergangene Tatsachen und Zustände, die jedoch gleichwohl der Interpretation bedürfen, wahrgenommen.

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Metaphern – Sprachbilder – Topoi Metaphors – Figures of Speech – Topoi

Andreas Brenneis

PhD Candidate, Research Training Group Topology of Technology

Der Beitrag geht der Frage nach, ob eine Umschreibung von Metaphern als (sprachliche) „Bilder“ angemessen ist und wo Vor- und Nachteile davon liegen. Die Metapher des Bildes für eine Kennzeichnung dessen, was Metaphern sind, zieht sich durch die gesamte Beschäftigung mit dem Phänomen und wird bis heute – und zwar zumeist ohne ausdrückliche Einführung – verwendet. Für eine Metaphernforschung, die nahe am Text arbeitet, ist das Bild vom Sprachbild problematisch, weil damit die offene Frage nach den Grenzen einer Metapher aus den Augen verloren wird.

Ausgehend von diesem Tatbestand möchte ich klären, was die Rede vom Bild nichtsdestotrotz attraktiv zu machen scheint, um mit ihm Metaphern zu erklären. Dazu wende ich mich in drei Schritten einer Theorie des Bildes zu: Zunächst werden Bilder als Teile von Symbolsystemen klassifiziert, die verschiedene Modi der Bezugnahme ermöglichen (1). Dass diese Beziehungen immer in soziale Praxen eingebettet sind, wird dann mittels einer Bildpragmatik dargelegt (2). Wie diese Umgangsweisen mit Bildern wieder darauf zurückwirken, was überhaupt als bildlich angesprochen werden kann und wie Bilder Realität gestalten, ist schließlich Thema einer Phänomenologie des Bildgebrauchs (3). Die Überlegungen und Einsichten zu dem, was Bilder sein können, werden in einem letzten Schritt zusammengeführt und mit Blick auf die Frage nach dem Metaphorischen bewertet. Dabei werden Metaphern und Topoi voneinander unterschieden.

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Comment

Lutz Danneberg

Humboldt-Universität Berlin

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Raum. Agency. Technik. Zur Genealogie der Netzwerke Space, Agents & Technology

Niels Werber
Universität Siegen

In my lecture I'll approach the "Topological Manifesto" of the Darmstadt Graduate School "Topology of Technology" from a historical standpoint. The core thesis of this very manifesto: that one should move on from concepts of the "empty space" to a "relational network", from a "mere construct" to a "dispositive", is somehow - without any explicit reference and probably even without any encounter at all - a recurrence of a similar programmatic discourse, drafted by German geopolitical theorists in the 1930s and 1940s. Building on latest biological research, media theory and an actor-network-theory *avant la lettre*, these authors claim to overcome the concept of Cartesian space and impose a new notion of operational agents and relational spaces. This notion of space embraces a set of functions, including power, body, technologies, and communications. Thus, a historical dimension is added to our discussion of the "Topological Manifesto" which builds its distinctions and observations almost exclusively in radical contemporaneity.

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Idealismus, Skeptizismus, Empirismus: Gibt es wissenschaftlichen Fortschritt in der Globalgeschichte? Idealism, Scepticism, Empirism: Is there Scientific Progress in Global History?

Angelika Epple
Universität Bielefeld

In den letzten Jahren erfreuen sich globale Synthesen einer großen Beliebtheit. Nicht nur Christopher Baylys *Die Geburt der modernen Welt*, auch Jürgen Osterhammels *Die Verwandlung der Welt* haben große Leserkreise erreicht. Gleichzeitig entstehen derzeit zahlreiche Forschungsarbeiten, die sich aus mikrogeschichtlicher Perspektive globalen Verflechtungsgeschichten zuwenden. In dem Vortrag skizziere ich zunächst eine These des Philosophen Vittorio Hösle, der zufolge sich die Geschichte der Philosophie in drei Phasen unterteilen lässt: Auf eine idealistische Phase folge, so Hösle, eine skeptizistische und im Anschluss eine empiristische. Dann beginne der Reigen von vorne. Diese zirkuläre Bewegung ermögliche wissenschaftlichen Fortschritt, ohne dass ihm eine Teleologie unterlegt würde. In einem zweiten Schritt übertrage ich diese These auf die Geschichte der Globalgeschichte und frage danach, ob sich die aktuellen Mikro- und Verflechtungsgeschichten als empirische Antwort auf skeptizistische und idealistische Synthesen eines Baylys oder Osterhammels verstehen lassen.

Evening Talk

5 – 6.30 pm
titanium 2 (2.03 | 2.04)
Chair: Robert Julio Decker

Newtons Eimer – Was sich aus ontologischen Spekulationen für heutige Raumdebatten lernen lässt

Newton's Bucket – What Might Be Learnt from Ontological Speculations for Contemporary Discussions of Space

Kai Denker

TU Darmstadt

In den letzten 15 Jahren hat sich das Thema „Raum“, oft unter dem Stichwort Topologie, zu einem heißen Thema der Geistes- und Kulturwissenschaften entwickelt. Alle Hinwendungen zum Raum verlangen eine im unterschiedlichen Maße ausgeprägte Abstraktionsleistung gegenüber einem als empirisch oder materiell behaupteten, also nicht ideellen Raum. Es wird dabei gelegentlich behauptet, man habe die mathematische Theorie der Topologie mit ihrer Betonung der Relationen ernst genommen und in die Geistes- und Kulturwissenschaften übernommen.

So solle es möglich sein, räumliche Strukturen in den Untersuchungsgegenständen rein relational zu beschreiben und Raum nicht als Voraussetzung, sondern als Produkt relational fassbarer Prozesse zu denken. Kurz: Raum ist damit nicht etwas, was empirisch vorgefunden wird oder ideell gegeben ist, sondern etwas, das produziert wird. Das Problem der Produktion spielt sich dabei ausschließlich in der Beschreibungssprache ab, da diese aufgrund ihrer Abstraktheit ihren Gegenständen jederzeit einen räumlichen Charakter zuschreiben und zugleich alle Phänomene der Gleichzeitigkeit in eben diesen Gegenständen räumlich ausdrücken kann. Die topologische Beschreibungssprache repräsentiert also nicht etwas, was per se räumlichen Charakter hat, sondern sie wählt lediglich eine räumliche Repräsentation, die keineswegs notwendig ist. Sie vermag den räumlichen Charakter zwar nicht zu garantieren, kann ihn aber stets zuschreiben. Die Angemessenheit einer solchen räumlichen Präsentation lässt sich folglich nicht empirisch mit Einzelfällen rechtfertigen, sondern eine entsprechende Kritik muss immanent zur Beschreibungssprache stattfinden.

Eine solche Kritik hat über eine Untersuchung der topologischen Begriffe stattzufinden. Angesichts der genannten Behauptung lohnt es sich aber zu fragen, ob die topologischen Begriffe kompatibel nicht nur zur mathematischen Begriffsbildung sind, sondern zu den physikalischen Vorstellungen von Raum. Sicher ist die physikalische Vorstellung von Raum nicht die einzig mögliche Vorstellung von Raum, aber wir müssen von jeder Vorstellung von Raum, die wir nicht von vornherein verwerfen müssen wollen, verlangen, dass sie wenigstens kompatibel zur Physik ist. Dabei gilt auch für die Physik, dass die verschiedenen Auffassungen von Raum nicht empirisch gerechtfertigt oder widerlegt werden können, da sie sich bloß auf die Beschreibungssprache beziehen und daher ihre Wahl, solange sie die Beobachtungsdaten in eine Theorie fassen können, kontingent ist. Allenfalls erlauben neben der Plausibilität Fragen der Sparsamkeit oder der Eleganz eine Wahl zwischen den verschiedenen Raumauffassungen. Insofern können wir die verschiedenen Auffassungen der Physik als ontologische Spekulationen bezeichnen. In meinem Vortrag möchte ich die Diskussion ausgehend von Newtons Eimer-Gedankenexperiment nachzeichnen und versuchen, hieraus Argumente für und auch gegen die topologische Raumauffassung in den Geistes- und Kulturwissenschaften zu entwickeln. Es lässt sich zeigen, dass moderne substantialistische und strukturrealistische Raumauffassungen Möglichkeiten einer Fortentwicklung der Beschreibungssprache liefern und dass dies bereits von Deleuze in seinem Begriff der Mannigfaltigkeit versucht worden ist.

VII. Philosophy of Topology

Friday, March 20

chromium (2.02) | Chair tba

9.10 – 10.25 am

Kai Denker (Darmstadt)

Newton's Bucket – What Might be
Learnt from Ontological
Speculations for Contemporary
Discussions of Space

10.31 am

Partial Solar Eclipse

10.40 – 11.55 am

Manuel Reinhard (Darmstadt)

The Topos of the Border

Suzana Alsancar (Yale)

What was Technological

Determinism? The Making of a

Legend

V. Current Spaces of Human- Technology Interaction – cont'd

12.10 – 1.25 pm

Herdis Hagen (Darmstadt)

Combat Spaces / Combat Dreams.

Spatialities of Future Warfare

Dierk Spreen (Paderborn)

Comment

Der Topos der Grenze The Topos of the Border

Manuel Reinhard

PhD Candidate, Research Training Group Topology of Technology

Der Topos der Grenze tritt in der Geschichte der abendländischen Philosophie wiederholt in einer der Hauptrollen auf. Er (griech.: Pēras) ist es, welcher der griechischen Antike das Wahre, Schöne und Gute vom Chaos der Unordnung zu unterscheiden half. Im christlichen Mittelalter und der frühen Neuzeit markierte er (lat.: finis) mit der Charakterisierung Gottes als "ens infinitum" den Unterschied zwischen Schöpfer und Schöpfung ("omnis determinatio est negatio", so Spinoza über den Status von Gottes Geschöpfen). Nachdem sich mit Immanuel Kant und Georg Wilhelm Friedrich Hegel die bislang letzten großen Systemarchitekten der Philosophiegeschichte mit dem Topos der Grenze Halt zu geben versprochen, war von dem Zweifel an deren Statik jedoch nicht ihr grundlegender Topos betroffen. In der Verunsicherung ob all der Begrenzungen unserer menschlichen Fähigkeiten (und damit eines der zentralen Probleme einer Philosophie nach den Ernüchterungen gegenüber sich selbst) war es auch weiterhin der Topos der Grenze, dem in den meisten der philosophischen Selbstvergewisserungen des 20. Jahrhunderts volles Vertrauen geschenkt wurde. Diese Paradoxie ist zu vertraut, als dass sie noch auffallen würde. Sie begegnet uns zu oft, als dass sich alle diese Begegnungen erinnern lassen ließen. Und dennoch demonstriert sie an unterschiedlichsten Orten wie dem sogenannten "spatial turn" innerhalb der Sozialwissenschaften, der Interpretation der ersten Versuche einer Quantenfeldtheorie oder den Gedanken zu einer dialetheistischen Logik auch jüngst noch ihre theoretische Produktivität. Statt all diese Orte der Begegnung mit ihr kartografieren oder ihre Anwohner zur Rede stellen zu wollen, wird ein Blick auf Jacques Derridas Schriften und Vorträge jene Paradoxie zunächst einmal detailliert beschreiben. Wie kaum ein anderer Philosoph der vergangenen Jahrzehnte vertraut Derrida auf den Topos der Grenze, um seine Kommentare zu einer Vielzahl an philosophischen und wissenschaftlichen, künstlerischen und politischen Diskursen zu artikulieren. Die Suggestivkraft und Plausibilität dieser Kommentare wird jedoch erst dann verständlich, wenn im Versuch, Derridas Topologie der Grenze zu verstehen, über die Möglichkeit nachgedacht wird, dass die beiden zentralen Traditionen der philosophischen Topologie (absolute vs. relationale Räume) nicht unbedingt als Gegensätze auftreten müssen – selbst und gerade dann nicht, wenn sie sich als solche darzustellen versuchen. Mit dieser Paradoxie öffnet sich letztlich die Möglichkeit eines anderen systematischen Blicks auf alle weiteren topologischen Diskurse, die durch die Abgrenzung gegenüber absoluten Raumkonzepten an Plausibilität zu gewinnen hoffen.

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V. Current Spaces of Human- Technology Interaction – cont'd

12.10 – 1.25 pm
Herdis Hagen (Darmstadt)
Combat Spaces / Combat Dreams.
Spatialities of Future Warfare
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Comment

What was Technological Determinism? The Making of a Legend

Suzana Alpsancar
Yale University

This paper/talk examines the genesis of technological determinism which aroused through a fundamental critique from (among others) Science and Technology Studies (SCOT, ANT), parts of US-American History of Technology, German "VDI-Philosophie der Technik" and "Techniksoziologie". Since it is not easy to determine neither the theory of technological determinism nor authors who advocate it the notion has been called a straw men argument in the last years made up to serve the constructivist/voluntaristic positions. The notion of technological determinism primary links to the question how technology influences our culture and society and how we can theorize and understand the ongoing process of "Technisierung". Since constructivist positions could not answers these questions sufficiently and since (after a radical culturalist view on technology at the end of the last century) a genuin "Eigenlogik" of technical objects and systems has been discussed widely in the past years variations of a so called "soft" technological determinism are back (or still) on track. By carefully reconstructing the development of the notion through its critics in the 1970s-1990s my paper takes a first step to shed some light on the lasting question of the debate: To which genuine problem does the multi-faceted notion of technological determinism refer to after all?

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Imperial Models, Colonial Labor: Railroad Construction in German Southwest Africa and the Philippines, 1884-1918

Robert Julio Decker

PostDoc, Research Training Group Topology of Technology

This talk explores racialized discourses and practices of colonial labor regimes in the construction and operation of railroads in German Southwest Africa (GSWA, present-day Namibia) and the Philippines. Western technology and its assumed superiority were not only used to justify colonial rule, but also crucial for rearranging people and resources. Railroad construction also served as a site where colonial powers could conduct large-scale experiments in labor recruitment, disciplining practices and workforce management. The labor-intensive construction of colonial railroads offers historians an insight into colonial powers' ways of establishing new labor markets characterized by a mix of white expert, indigenous free and coerced as well as migratory labor.

As latecomers among the imperial powers, however, both the United States and the German Empire referred to older models of imperial expansion and labor management. The talk thus investigates the role of the British Empire and American westward expansion as models for the Philippines and GSWA in colonial discourse, including the new powers' intentions to depart from these models and develop new practices. These discourses are then compared to palpable practices on the ground to analyze how racialized ideas influenced labor management in colonial railroad construction and operation. Simultaneously, this focus allows for investigating the readjustments and adaptations the imperial powers made in transferring models from other spaces to territories under their control. Building on this analysis, I argue that despite discourses centering on releasing indigenous peoples' economic potential by newly built infrastructure and providing incentives for their participation in wage-labor relationships, both the United States and the German Empire had to revert to indirect and direct coercion for labor recruitment and management in the construction of colonial railroads. The paper thus not only contributes to a global history of labor, but also opens new perspectives on inter-imperial exchanges.

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Comment

Ulrike Lindner

Universität zu Köln

VIII. Constructed by Motion: Space and Technology in History

Friday, March 20
titanium 2 (2.03 | 2.04) | Chair:
Catarina Caetano da Rosa &
Sebastian Haumann

9.10 – 10.25 am
Robert Julio Decker (Darmstadt)
Imperial Models, Colonial Labor
Ulrike Lindner (Köln)
Comment

10.31 am
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10.40 – 11.55 am
Marie-Christin Wedel (Darmstadt)
Of Moving and Meeting Spaces.
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Spatial Conditions and Demands of
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12.10 – 1.25 pm
Robert Groß (Klagenfurt)
Technology, Temporality and
Transformation
Martin Knoll (Salzburg)
Sites and Hubs

Von Bewegungs- und Begegnungsräumen. Das freizeitliche Rollschuhlaufen in urbanen Räumen in Deutschland und den USA seit Ende des 19. Jahrhunderts bis heute

Of Moving and Meeting Spaces. Leisure Time Roller Skating in Urban Areas in Germany and the United States from the Late 19th Century to the Present

Marie-Christin Wedel

PhD Candidate, Research Training Group Topology of Technology

Thema meiner Präsentation ist das freizeitliche Rollschuhlaufen in urbanen Räumen in Deutschland und den USA seit Ende des 19. Jahrhunderts. Um einen besseren Bezug zu dem Thema meines Gastes Herr Prof. Briese zu bekommen, wird mein Inhaltlicher Schwerpunkt auf Deutschland liegen:

- Änderungen von Straßenbelägen als Voraussetzung des Rollschuhlaufens im Freien
- Kinder und Jugendliche als Hauptbenutzer von Straßenrollschuhen
- Bewegen im Konfliktraum: Problematik und Diskussionen ums Straßenrollschuhlaufen in den 1910er Jahren
- „Existenzberechtigung im modernen Straßenverkehr“ : Utopie des Rollschuhs als Verkehrsmittel
- Schaffung eigener Bewegungsräume für Rollschuhläufer in Städten
- Das Ende des Rollschuhlaufens! Inline Skaten seit den 1990er Jahren
- Wagnis und Risiko als Kick: Extremskating in urbanen Räumen

VIII. Constructed by Motion: Space and Technology in History

Friday, March 20

titanium 2 (2.03 | 2.04) | Chair:
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Die räumlichen Bedingungen und Ansprüche der vielfältigen Nutzung des Fahrrads als Sport-, Spiel- und Transportmittel in Geschichte und Gegenwart

The Spatial Conditions and Demands of the Diverse Use of the Bicycle as Sport, Play and Means of Transportation in the Past and Present

Volker Briesse

Universität Paderborn, Fakultät für Kulturwissenschaften

Es geht um die recht unterschiedliche Nutzung, beziehungsweise um die Vorstellungen, wie ein Fahrrad genutzt wird oder benutzt werden sollte, und die daraus resultierenden räumlichen Aspekte und Konflikte.

Erfunden wurde das Fahrrad von Karl Friedrich Drais 1817 als Transportmittel. Akzeptiert wurden die ersten Fahrräder aber eher als vergnügliche Spielzeuge zur Fahrt in Parks und Hallen. Mit dem Hochrad rückten die sportlichen Aspekte des Radfahrens in den Vordergrund. Bis in das zwanzigste Jahrhundert wurde die Fahrradnutzung als Radfahrersport bezeichnet. Erst am Ende des 19. Jahrhunderts kam es zur Wiederentdeckung der ursprünglich vom Erfinder intendierten Nutzung des Fahrrads als Transportmittel. Während es im 19. Jahrhundert noch in einigen Städten Radfahrverbote gab, sehen wir ab der Jahrhundertwende Bilder mit einem Mischverkehr auf einer gemeinsamen Fahrbahn. Die massenhafte Nutzung des Fahrrads zwischen den Weltkriegen führte dann zur Separation der Fahrräder auf billige Radwege, um dem motorisierten Verkehr Platz zu schaffen. Die Benutzungspflicht von Fahrradwegen diente der Disziplinierung der Radfahrer. Neben der Nutzung des Fahrrads im Alltagsverkehr gab es weiterhin Radsport und das Fahrrad als Spielzeug für Kinder. Der Radsport fand in Deutschland weitgehend auf der Bahn statt und als Kunstradfahren oder Radball in Sälen. Nach dem zweiten Weltkrieg, sah die Verkehrspolitik und -Planung das Fahrrad als Technik von gestern. Das Fahrrad wurde weggedacht und weggeplant, obwohl es weiterhin viele alltägliche Nutzer des Fahrrads gab. Am Ende der 1970er Jahre wurde das Fahrrad angesichts der von Autos verstopften Innenstädte wieder als Transportmittel anerkannt. Zur Fahrradförderung wurden erneut besondere Radwege geschaffen, abgetrennt als Bordsteinradwege, oft nur abmarkiert von vorhandenen Gehwegen. Die unterschiedlichen Nutzungsformen des Fahrrads hatten unterschiedliche Raumbedürfnisse, die gelegentlich miteinander kollidieren. Wie viel Raum dem Fahrrad zugestanden wird, hängt ab vom Bild, das eine Gesellschaft sich vom Fahrrad macht. Das Konzept der separierten Pflichtradwege orientiert sich am Bild vom langsamen Radfahrer.

Seit jetzt fast 200 Jahren ist das Fahrrad im Vergleich mit anderen Fahrzeugen wie der Eisenbahn oder dem Auto ein bescheidenes Fahrzeug gewesen, mit einer einfachen, überschaubaren Technik, die wenig Raum beansprucht und vorhandene Räume kaum verändert hat. Während Medien und Verkehrspolitiker oft ein festes Bild von „den Radfahrern“ haben, erkennt man beim näheren Hinschauen in verschiedenen Zeiten, eine sehr bunte Gesellschaft von Radfahrern. Nicht für alle Nutzungsarten kann eine spezielle Infrastruktur geschaffen werden und muss es auch nicht. Die Politik der Trennung der Verkehrsarten durch „benutzungspflichtige Radwege“ undifferenziert für alle Radfahrer wird inzwischen vor allem auch unter Sicherheitsaspekten als nicht erfolgreich evaluiert. In den letzten Jahren finden Radfahrer wieder ihren Platz auf der Fahrbahn meist auf Radfahrstreifen. Oder sie teilen sich mit anderen Verkehrsteilnehmern entsprechend dem Konzept des „Shared Space“ den Straßenraum.

Das Fahrrad ist ein technisches Gerät für Individualisten, das für eine Vielfalt von Nutzungen zur Verfügung steht. Als Nutzer des individuellsten Verkehrsmittels, aber auch als Sportgerät für ganz unterschiedliche Aktivitäten, bleibt weiterhin den einzelnen Radfahrerinnen und Radfahrern die Aufgabe, sich intelligent die für sie optimalen Wege und Räume zu suchen.

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Technik, Temporalität und Transformation Technology, Temporality and Transformation

Robert Groß

Alpen-Adria-Universität Klagenfurt

Eingebettet in eine hochalpine Umwelt, die sich im Laufe des 20. Jahrhunderts als unberechenbar und letztlich unkontrollierbar darstellt, erfordert der Betrieb eines Skigebiets die Errichtung, Erhaltung und Differenzierung einer Vielzahl ober- und unterirdischen Infrastrukturen. Skilifte, Pistenraupen, Schneekanonen und Geländebauten dienen der materiellen Verwirklichung medial strukturierter Idealvorstellungen des Winters.

In dieser Präsentation möchte ich Skiliften und Skipisten zum Ausgangspunkt meiner Überlegungen machen. Skiliften war seit ihrer Entwicklung in den 1930er Jahren das Prinzip der Rationalisierung von „Freizeit“. Skilifte ökonomisierten die Überwindung der alpinen Topographie, dynamisierten Aufstiegs- und Abfahrtsrhythmen von Skiläufern und führten zur Popularisierung des Skilaufs, der vormals als Elitensport galt. Nach dem zweiten Weltkrieg galten Skilifte in Österreich als Garant für erfolgreiche Regionalentwicklung und den Wiederaufbau der Nationalökonomie. Die stetige Steigerung der Förderkapazitäten, der wachsende Verschuldungsgrad der Skiliftbetreiber und die gestiegene Abhängigkeit lokaler Arbeitsmärkte vom Wintertourismus, ließen Schnee zu einer Ressource werden, die es zu bewirtschaften, bewahren und später durch Schneekanonen zu imitieren galt. In der Präsentation sollen umwelt- und technikhistorische Perspektiven mittels eines praxeologischen Ansatzes integriert werden. Konzeptuell geschieht dies durch die Analyse von Skigebieten als sozionaturaler Schauplatz (SNS). Ein SNS lässt sich durch die Analyse biophysischer Arrangements und Praktiken beschreiben. Praktiken (Skifahren, ein Skigebiet zu betreiben oder eine Piste zu präparieren) formen Materialität. In Skigebieten ist Materialität (Schnee, Skilifte, Skipisten, Pistenraupen und Schneekanonen) in Ökosysteme eingebunden. Man spricht daher von biophysischen Arrangements. Technik nimmt dabei in Anlehnung an Pierre Bourdieu die Rolle einer materiell und sozial strukturierenden Struktur ein, die ihrerseits durch Materielles und Soziales strukturiert wird, so meine Hypothese.

Um den Einfluss der Technik auf soziale Praktiken und biophysische Arrangements, also den SNS und seine Transformation zu analysieren, soll der Fokus in der Präsentation auf die Analyse der Temporalität gelegt werden. Ich gehe davon aus, dass den Skiliften ein industrielles, lineares Zeitregime eingeschrieben war, welches skiläuferische Praktiken strukturierte. Das Wetter, die Jahreszeiten, die Regeneration von Ökosystemen und Böden – der biophysische Kontext der Materialität – folgt hingegen einer zyklischen Temporalität. Diese Paradoxie versuchten Skiliftbetreiber, so meine Hypothese, durch die Integration von Technik (z.B. der Handhabung thermodynamischer Prinzipien bei Beschneiungsanlagen) in Praktiken und Arrangements und damit die laufende Transformation des SNS aufzulösen.

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Martin Knoll

Universität Salzburg, Fachbereich Geschichte

Mein Kommentar lässt sich unter die Begriffe „Schauplätze“ und „Schnittstellen“ subsummieren. Er wird sowohl das Konzept der „Sozionaturalen Schauplätze“ als auch die Frage der Temporalität aufgreifen. Die von Robert Groß vorgeschlagene Analyse der sozionaturalen Hybridität des Skisports durch Konzeption von Skigebieten als Sozionaturale Schauplätze und sein Verweis auf die Notwendigkeit der Synchronisation verschiedener Praktiken und ihrer jeweiligen Zeit- und Geschwindigkeitsregimes verweist aus meiner Sicht – der des Regionalhistorikers – auf zwei weitere Kategorien: Mobilität und Schnittstelle. Überall dort, wo unterschiedliche Mobilitätsmodi synchronisiert werden (Autofahrt zu Liftbenutzung, Skiabfahrt zu Fußweg etc), gibt es kritische Schnittstellen, an denen sich Synchronisationsleistung und –probleme konzentriert beobachten lassen. Eine zweite Problemebene ist nicht zeitlicher sondern räumlicher Natur: Auch wenn ein Skigebiet als SNS konzipiert und damit als Untersuchungseinheit abgegrenzt wird, bleibt dessen Integration in einen übergeordneten regionalen Zusammenhang als analytische Herausforderung. Auch diese Integration konstituiert sich über soziale Praktiken und Materialität und lässt sich ebenfalls an kritischen Schnittstellen untersuchen. Diese den weiteren räumlichen Kontext integrierende Sicht auf sozionaturale Schauplätze ist nötig um die transformative Kraft von Skisport und Tourismus für die jeweiligen Tourismusregionen fassen zu können.

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Storage and Processing Challenges of Big Data Based on the Example of Sensor-Defined Networks

Sergej Hardock

PhD Candidate, Research Training Group Topology of Technology

Sensors could support human senses, substitute them and often widen our perception of spaces by translating naturally “unsensed” factors (radiation, speed, etc.) into the form we could perceive. Examples of virtual spaces defined by sensors and networks of sensors are surrounding us (often unnoticed) in our everyday life. Consider, for instance, so-called soft-spaces in modern cars. 50 to 100 sensors here provide data to driver’s assistance systems. Based on this data in few microseconds the system could warn the driver about possibly unintentional change of lane; it could analyze the gestures of the driver over the last time to determine whether he is (or tend to be) asleep and notify him; or even itself slow-down or stop the vehicle if there is an obstacle in the way. Similar networks of sensors and defined by them virtual spaces are also present on board of planes, rockets, ships, and high-speed trains. Other popular examples of sensor-defined spaces are: “smart” city, “smart” home, body area networks, weather forecasting, etc.

Independent of the type and purpose of sensor-defined spaces they all have data-centric architecture, where the sensed data is playing the main role. In each of the cases listed above information has different format, semantics and constraints. However, two properties are common for all sensor-defined spaces. The amount of generated, stored and proceed data is huge. Scientists use the term “big data” while describing informational systems nowadays. Just imagine that 90% of the world’s data (over the whole human history) has been generated in the last two years. And while the data amount of data that need to be processed is constantly increasing with a drastic tempo, the time constraints for the processing itself are becoming more strict exponentially. In some sensor-defined spaces the response time is measured in days (e.g., weather or climate forecasting), in others – in minutes or seconds (e.g., smart city, smart home, body area networks). However, in the driver’s assistance systems in cars or in similar soft-spaces in planes the time resolution is microseconds. Therefore, the data on sensor-defined spaces is not only “big” but also “fast”.

Storing these amounts of data and providing fast processing of it become one of the biggest IT challenges nowadays. Multi- and many core CPUs, new kinds of non-volatile memory (Flash, Phase-Change Memory, etc), Cloud and many other technologies and system architectures have been invented in the recent years to handle the Big Data. However, not always those technologies are used in the most efficient way, and their real potential is therefore often underutilized.

IX. Digital Spaces

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Collaboration and Digital
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12.10 – 1.25 pm

Andrea Rapp (Darmstadt)
Text as Space
Petra Gehring (Darmstadt)
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Comment

Ilia Petrov

Universität Reutlingen

Debates in the Digital Humanities

Anna Spatz

PhD Candidate, Research Training Group Topology of Technology

In the 21st century the rapid development of technologies also has great influence in the academic disciplines of the humanities. The digital humanities (abbreviated DH) are a result of this and describe a research field, which combines traditional interest areas of the humanities with methodologies provided by the computer science.

Several introductory works on that topic try to offer an universal definition for DH but there are still various definition problems and discussions to be found.

It is often argued that DH is not a specific theory but more a social movement, which serves as a steppingstone for a future form of humanities, that wishes to include what people value about the digital world without forgetting its origin. Basically the premise of this field is that interdisciplinary ways of research between computer science and humanities can advance long-standing goals of research in both fields.

Through the representation of symbols in a binary code, new forms of data analysis are getting usable for humanities research. 'Big Data' is the keyword, which promises to answer all those questions, which were previously unanswerable. For the humanities the big amount of data either was 'born digital' or created through projects of mass digitalization. Where the binary code is a language, which computers and humans can understand, the possibilities for the analysis and interpretation of the raw, neutral data material seem limitless

As text is data, this new opportunities force the concepts of textuality and literacy to be rethought. The movement towards computer-assisted methods, the 'digital turn', is pushed forward by the work of various projects also in the literary studies. Due to that literature dissolves out of the classical cultural space and embeds in new forms of digital spaces. Which leads to the effect, that mass digitalization not only changes the literary canon but also the literature concept itself.

This session will try to summarize the debate about what defines digital humanities, especially in the context of big data. It will try to show examples of how big data effects literary studies in particular. Therefore it will also try to give room for a short excursus to some of the projects, which deal with the digitalization of literature and the results of that.

In general the content will be taken from the works of McCarty, Terras, Drucker, Unsworth, Liu, Witmore, Fitzpatrick, Fish, Cohen, Underwood, Flanders, Gitelman and others.

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Collaboration and Digital Humanities: Two Studies and a Plea

Julianne Nyhan

University College London

Collaboration is widely considered to be both synonymous with and essential to Digital Humanities practice (DH). Many examples that substantiate this claim can be given, for example, *inter multa alia*, practitioners of DH often differentiate their discipline from others by reference to DH's collaborative nature and publication patterns (see, for example, Koh, 2012); an important consideration of many DH project charters includes ways of responding to and managing collaborative working environments (see, for example the Collaborators' Bill of Rights and Ruecker and Radzikowska (2008)); a number of reports have considered how tenure and promotion committees can best respond to and evaluate collaborative publications (see, for example, MLA 2012).

Notwithstanding the apparent centrality of collaboration to modern day DH it is astonishing to note how little research has been undertaken on either the history or present of collaboration within DH. This paper will draw on two case studies of research either in progress or recently published in order to probe the concept of collaboration further. The first will be of the female keypunch card operators who worked with Fr Roberto Busa in the 1950s and who received very little recognition for their work. The second will be about the joint and multi-authorship patterns that occur in some of the field's major journals. I will then reflect on the state of the art of 'collaboration studies' in Digital Humanities and point to some pressing and little explored research questions.

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CVs

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Andreas Brenneis studied Philosophy and Education in Münster, Darmstadt and Port Elizabeth, ZA. After his graduation in 2012 he joined the DFG Research Training Group Topology of Technology as a PhD candidate. His dissertation is on the rhetorical power of metaphors in structuring scientific discourse taking the philosophical criticism of technological developments in the 20th century as an example. Part of this work is to establish a concept of metaphor that can be used to identify and interpret parts of texts as metaphorical. With this project he is following his interest in the Philosophy of Language which he addressed in his Master's thesis on „Three Perspectives of and by Metaphors“ that examined the different perspectives of Max Black, Josef König and Hans Blumenberg and their respective commonalities.

Andreas has worked for the LOEWE project „Eigenlogik der Städte“ and is co-editor of the „Jahrbuch Technikphilosophie“. In 2014 he spent two months at Fatih University in Istanbul as a part of the Erasmus Staff Mobility Programme.

Publication

Zur topologischen Ordnung von Metaphern. Ein methodologischer Zugang. In: Journal Phänomenologie 41/2014

Irene Breuer

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As an architect and philosopher Irene Breuer works at the interface of body and space. She is an active member of the Institute for Phenomenological Research at the University of Wuppertal. Her research focus is set on: ancient philosophy, classical German and French phenomenology, architectural theory and esthetics. Between 1991 and 2002 she worked as an architect and was the academic counselor in architecture at the Universities of Buenos Aires and Belgrano. Since 2012 she teaches at the University of Wuppertal, in 2012 “history and theory of architecture” and thereafter “theoretical philosophy”.

Recent publications

"Merleau-Ponty: Auswirkungen der 'kohärenten Verformung' auf Leib und Sinn – die Simultaneität im Raum", in Corporeity und Affectivity, ded. to M. Merleau-Ponty, ed. by K. Novotny, P. Rodrigo, J. Slatman and S. Stoller, Brill 2013.

"Descartes–Nietzsche: die Phänomenalität der inneren Welt – die Gewissheit und Wahrheit der Gefühle", in Subjektivität und Intersubjektivität in der Phänomenologie, I. Römer (Hrsg.), Ergon Verlag 2011.

"Faktizität, Notwendigkeit und Zufälligkeit des Ich bei Husserl" und "Die Welt als Erfahrungsboden bzw. -grund bei Aristoteles und Husserl", in Universitätsbibliothek München, Rubrik "XXII. Deutscher Kongress für Philosophie" im Rahmen des open-access-Portals der UB München, 2012.

"Die ethische 'Kraft' der Gabe – die Gerechtigkeit – und ihre 'kairologische' Zeitlichkeit, in Journal für Religionsphilosophie, "Gabe, Alterität und Anerkennung", Nr. 2/2013.

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Prof. Dr. rer. soc. Volker Briese (born 1944) was a Lecturer and a Professor of Political Science until his retirement (2009), focusing on education research at the University of Paderborn. He then held teaching positions in the local sociology for education policy and the didactics of social studies.

He studied political science, German studies and history at the Universities of Erlangen, Salzburg and Konstanz. After graduating, he worked as a research assistant at the Zentrum I Bildungsforschung (DFG Collaborative Research centre) at the University of Konstanz. He received his PhD with a thesis on "centralization of cultural policy in the Federal Republic of Germany". After completion of the research project in Konstanz in 1974 he worked as a research assistant in political science at the Gesamthochschule Paderborn. He habilitated in 1976 with a thesis on educational administration.

He co-founded a bicycle initiative in Paderborn, which later became a local group of the German Cycling Club (ADFC).

From 1986-1995 he worked at the Federal Executive and was in charge of the ADFC of Transport Education and bike technology.

Since 1992 he participated as a speaker in international conferences about bicycle history (ICHC) and spoke at the Velocity conference in 1989 in Copenhagen and 1992 in Montreal. In 1994 and 1997 he organized two bicycle conferences in Bielefeld. He is the author of many contributions about traffic education, bicycle history and policy.

Some of his publications

Together with Wilhelm Matthies and Gerd Renda (HG): Wege zur Fahrradgeschichte. Bielefeld 1995,

darin: Das Fahrrad als Nutzfahrzeug. S. 141-151, sowie: Zur Situation der fahrradhistorischen Arbeit in Deutschland: Institutionen, Aufgaben, Projekte, weiße Felder. S. 167-171

From Cycling Lanes to Compulsory Bike Path: Bicycle Path Construction in Germany 1897-1940. In: Cycle History. Proceedings of the 5th International Cycle History Conference, Cambridge, 1994. San Francisco 1995, S. 123-128

Children as Bicycle Passengers. In: Bicycle History 18, San Francisco 2008, S. 43-47

Radwege - Fluchträume oder Hindernisparcours. In: Zeitschrift für Verkehrserziehung, Heft 1/2011, S. 32 – 34

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Lutz Danneberg studied Mathematics, Sociology and Linguistics in Hamburg and Göttingen. After receiving his diploma in Hamburg he studied Philosophy and Literary Studies. In 1980/81 academic studies at the University of Pittsburgh (with Adolf Grünbaum and Nicholas Rescher). PhD in Philosophy from the University of Hamburg. Teaching at the University of Bern and Habilitation in Philosophy as well as German Literary Studies. Visiting Professor at the University of Rostock. Since 1992 Professor for Methodology and History of Hermeneutics as well as German Studies at Humboldt University zu Berlin.

Selected publications

Probleme der Verknüpfung von Metaphern in der Philosophie. Oder: Was haben Bacons, Humboldts und Nietzsches Spinnen mit einander zu tun? Erscheint Berlin/New York 2015

Zwischen Asche und Fußabdruck. Zu den Konzepten der Spur im Vergleich mit denen der Quelle und des Einflusses sowie zum Spurenlesen als einem grundlegenden Konzept der Beschreibung wissenschaftlichen Arbeitens. In: *Scientia Poetica* 16 (2012), S. 160-182

Das Gesicht des Textes und die beseelte Gestalt des Menschen: Formen der Textgestaltung und Visualisierung in wissenschaftlichen Texten. In: Nicolas Pethes und Sandra Pott (Hg.), *Medizinische Schreibweisen*. Berlin 2008, S. 13-72

Kontrafaktische Imaginationen in der Hermeneutik und in der Lehre des Testimoniums. In: Id. et al. (Hg.), *Begriffe, Metaphern und Imaginationen in der Wissenschaftsgeschichte*. Wiesbaden 2009, S. 287-449

Weder Tränen noch Logik: Über die Zugänglichkeit fiktionaler Welten. In: Uta Klein et al. (Hg.), *Heuristiken der Literaturwissenschaft. Einladung zu disziplinexternen Perspektiven auf Literatur*. Paderborn 2006, S. 35-83

Sinn und Unsinn einer Metapherngeschichte. In: Hans Erich Bödeker (Hg.), *Begriffsgeschichte, Diskursgeschichte, Metapherngeschichte*. Göttingen 2002, S. 259-421

Hg. mit Andreas Graeser und Klaus Petrus: *Metaphern und Innovation. Beiträge aus philosophischer und literaturwissenschaftlicher Sicht*. Bern/Stuttgart/Wien 1995

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After receiving his M.A. in History and Political Sciences from the University of Cologne in 2008, Julio Decker worked on his PhD dissertation about the regulation of immigration to the United States from 1894-1924 at the University of Leeds. In his thesis, he combined a Foucauldian approach including governmentality, biopolitics and subjectivation with critical race and whiteness studies to focus on the IRL as a nodal point between scientific racism, Anglo-Saxon identities, civic commitment and the state's apparatus of security.

Having received his PhD in 2012, he became a postdoctoral researcher at the Topology of Technology research group in 2013, working on the global history of American and German colonial railroads. The project concentrates on the key role of railways in the establishment of colonial regimes. Focusing on space, the economy and labor regimes as analytical categories, the project investigates the global circulation of knowledge between colonial powers and the model character of the home countries and the British Empire for the two aspiring colonial powers.

In 2014, he spent five months as a postdoctoral fellow at the Weatherhead Initiative on Global History, Harvard University; his doctoral and postdoctoral research has also been supported by the German Historical Institute in Washington, D.C., the DAAD, Houghton Library (Harvard University), the Royal Historical Society and other organizations.

Recent publications:

"Citizenship and its Duties: The Immigration Restriction League as a Progressive Movement", *Immigrants & Minorities* 32, 3, 2014, pp. 162-182-

"The Visibility of Whiteness and Immigration Restriction in the United States, 1880-1930", *Critical Race and Whiteness Studies e-journal* 9, 1.

"The Transnational Biopolitics of Whiteness and Immigration Restriction in the United States, 1894-1924", in Norbert Finzsch, Ursula Lehmkuhl, Eva Bischoff (eds.): *Provincializing the United States: Colonialism, Decolonization and (Post)Colonial Governance in Transnational Perspective*, American Studies Series (Heidelberg: Winter), 2014, pp. 121-153.

"Immigration Restriction, Whiteness and Subjectivity in the United States, 1894-1924", in Eva Bischoff; Elisabeth Engel (eds.): *Colonialism and Beyond – Race and Migration from a Postcolonial Perspective*, *Periplus Studien* 17 (Münster: Lit), 2013, pp. 33-52.

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After Manuel Dietrich finished his studies in electromechanical engineering at the University of Applied Science in Nürnberg with a diploma degree, he did his master in Philosophy of Technology at TU Darmstadt. Since September 2013 he is a PhD student at the interdisciplinary research training group “Topology of Technology” at TU Darmstadt. In the framework of his PhD he is associated with the department of philosophy at TU Darmstadt as well as with the Embedded Sensing Group in the computer science department at the University of Freiburg. In his PhD project Manuel Dietrich analyzes the influence the technology of wearable activity recognition has on the behavior of persons when used to track their activities. This is an interdisciplinary approach which is based on philosophical concepts on human actions and current activity recognition systems in different applications. The interest of Manuel Dietrich’s research lies first in contributing to the philosophy of technology discussion and second in its practical considerations for the interactive system design. Terms of interest are for him are: philosophy of technology, theory of action, activity recognition, wearables, learning algorithms, interaction design.

Recent publications

Dietrich, M., & van Laerhoven, K. (2014). An Interdisciplinary Approach on the Mediating Character of Technologies for Recognizing Human Activity. In V. C. Müller (Ed.), *Computing and Philosophy: Proceedings of IACAP 2014*. Berlin: (Synthese Library) Springer.

Dietrich, M. (2014). In *Interaction With Wearable Activity Recognition Technologies*. Paper presented at the Proceedings of the 2014 ACM International Symposium on Wearable Computers: Adjunct Program, Seattle, Washington.

Melanie Dietz

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After receiving her diploma in sport science with a focus on computer science from Technische Universität Darmstadt in 2013, Melanie Dietz became a scholarship holder of the interdisciplinary Research Training Program Topology of Technology at Technische Universität Darmstadt. She now works on her PhD project: Three-dimensional presentation of movements during the early phase of motor learning - Information gathering for the observation of movements? Beside her research she works as a scientific assistant for her doctoral supervisor Prof. Josef Wiemeyer at the Institute of Sport Science where she is a tutor in several lectures. Melanie Dietz is interested in the research of motor learning, cognitive psychology, spatial abilities and computer science in sport.

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After graduating in sport science with a focus on the discrimination of women in sports from Technische Universität Darmstadt in 2009, Aleksandra Dominiak worked as sports therapist and sports coordinator in Frankfurt. 2012 she became scholarship holder of the interdisciplinary Research Training Program Topology of Technology at Technische Universität Darmstadt. She is currently completing her PhD about Gender based training of spatial competencies by means of gesture-controlled sports games. Her research interests are computer science in sport, gender studies and development of spatial competencies.

Angelika Epple

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Angelika Epple is professor of modern history, vice-speaker of the BMBF-project „Entangled Americas“ ([http://www.uni-bielefeld.de/\(en\)/cias/entangled_americas/](http://www.uni-bielefeld.de/(en)/cias/entangled_americas/)), and member of the steering committee of the cooperation group „communication of comparisons“ ([http://www.uni-bielefeld.de/\(en\)/ZIF/KG/2013Vergleich/members.html](http://www.uni-bielefeld.de/(en)/ZIF/KG/2013Vergleich/members.html)) at the Center for Interdisciplinary Research (ZiF). Since 2010 she has been dean/vice dean of the faculty of history, philosophy, and theology. Her research interests include the history of global entanglements, global microhistory and locality studies, gender history, comparative history of historiography, and the communication of comparisons in history.

Recent Publications

Globale Machtverhältnisse, lokale Verflechtungen: Die Berliner Kongokonferenz, Solingen und das Hinterland des kolonialen Waffenhandels, in: Christof Dejung, Martin Lengwiler (Hg.), *Ränder der Moderne*, Köln, Weimar, Wien 2015 (forthcoming).

The Vertigo of Historical Analyses in a Globalizing World. Reading Joan Scott, in: *History and Theory* 53 (May 2014), S. 235-244.

Lokalität und die Dimensionen des Globalen. Eine Frage der Relationen, in: *Historische Anthropologie*, 21.Jg. 2013/1, S. 4-25.

Global- und Geschlechtergeschichte. Eine Beziehung mit großer Zukunft, in: *L'Homme. Zeitschrift für feministische Geschichtswissenschaft*, 23. Jg. Heft 2, 2012, S. 87-100.

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Herdis Hagen is a Ph.D. student at the DFG research training group Topology of Technology since 2012. Her Ph.D. project focuses on conjunctions of spatiality, technology and bodies in contemporary warfare. Her research interests include sociological perspectives on violence and war, space, body and technology, and also gender studies. In March and April 2013 she was a research fellow at the Centre for Military History and Social Sciences of the Bundeswehr.

Herdis Hagen received her M.A. in sociology, macroeconomics and political science from the University of Potsdam and the Free University Berlin in 2011. During her studies, she worked as researcher at the project Social Capital during Transition (funded by the Federal Ministry of Education and Research) and as student assistant at Robert Koch Institut and at the University of Potsdam.

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Paul Haiduk holds a Master of Science in engineering psychology from Technische Universität Darmstadt and is Ph.D. candidate in aerospace engineering. During his study of psychology he gathered experience in human factors research in the automobile industry. He now focuses on cockpit systems and the human factors of the flight deck. His research is devoted to innovative display systems to support situation awareness of pilots in the general aviation. He currently builds prototypes on augmented reality glasses, so called data glasses.

Recent Publications

Santel, C. G., Haiduk, P. M., Fuchs, K.-U., & Klingauf, U. (in press). The potential for analytical modeling and flight simulator studies of midair collisions to support accident investigation. In A. Droog (Hrsg.) *Facilitating change(s): Proceedings of the 31st European Association for*

Aviation Psychology Conference. Groningen, Netherlands: European Association for Aviation Psychology.

Haiduk, P. M., Santel, C. G., Fuchs, K.-U., & Klingauf, U. (2014). Sehen und Gesehen werden: Simulatorstudie mit Fremdverkehr zur Untersuchung von Erfassungswahrscheinlichkeiten [DGLR-Bericht 2014-01]. In M. Grand & S. Schmerwitz (Hrsg.), *Der Mensch zwischen Automatisierung, Kompetenz und Verantwortung*: 56. Fachausschussitzung Anthropotechnik. (p. 77–91). Bonn: Deutsche Gesellschaft für Luft- und Raumfahrt –Lilienthal-Oberth.

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Sergej Hardock is a Ph.D. student at the Databases and Distributed Systems Group at the Technische Universität Darmstadt. His research interests are in database systems on modern hardware, native Flash database storage, lean Flash-aware database systems. He earned his master's degree from TU-Darmstadt in 2013.

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Dr. Ute Hasenöhl is a social and environmental historian at the University of Innsbruck, Austria. As Assistant Professor at the Department of History and European Ethnology, she is currently working on a colonial history of lighting in the British Empire, investigating the juxtaposition of infrastructures, politics, society and the environment. Her research interests include social movements and civil society, institutions and collective goods, cultural landscapes and energy, as well as the development and perception of socio-technical systems. She is author of *Zivilgesellschaft und Protest. Eine Geschichte der Naturschutz- und Umweltbewegung in Bayern 1945-1980* (Göttingen: Vandenhoeck & Ruprecht 2011) and co-editor of the volume *Urban Lighting, Light Pollution and Society* (New York/London: Routledge 2015).

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Nicole Hesse started her scholarship within the research training program Topologie der Technik at Technische Universität Darmstadt in 2013. She works on transformations in energy systems since the mid-19th century, with a special focus on the intersection of technology and environment, in particular with the persistence of technological systems in the course of transitions, times of conflicts and crisis. In her dissertation she examines the persistence of regional solutions to use wind energy in Northern Germany and Southern France and relates it to the cultural significance of technology in interaction with natural requirements (further information to be found at <http://www.ifs.tu-darmstadt.de/index.php?id=tdt-hesse&L=0>). Currently she holds lectures at the Institute of History in Darmstadt. Nicole Hesse received her M.A. in History and German Philology in 2006. Until 2013 she led an educational policy project supporting immigrants to learn the German language.

Recent publications

Nicole Hesse and Nora Thorade: Produzieren, Herstellen, Fabrizieren: Neue historische Perspektiven auf die Produktionstechnik. Konferenzbericht der 23. Jahrestagung der Gesellschaft für Technikgeschichte, in: *Technikgeschichte* 81 (4/2014), S.363-370.

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Jens Jäger studied history, literature and economics at the University of Hamburg. In 1995 he received his PhD with a thesis about photography and society in England and Germany in the 19th century. Since 2010 he worked as interim professor at the University of Cologne, Saarbrücken and Heidelberg.

His main research interests include Visual History and history of photography, the representation of state authorities and colonial history. He is member of the *Verband der Historiker und Historikerinnen Deutschlands* and the *Zentrum für Vergleichende Europäische Studien* (ZEUS).

Publications

Eyewitnesses? The Visual Depiction of Events around 1900, in: C. Zimmermann / M. Schreiber (Hg.), *Journalism and Technological Change. Historical Perspectives, Contemporary Trends*, Frankfurt/M.-Chicago 2014, S. 165-184

"Great service, too, will the plain and truthful records of Photography afford to the historian of future ages", in: A. Voellmin/ W. Leimgruber / N. Mathys (Hg.): *Über den Wert der Fotografie. Wissenschaftliche Kriterien für die Bewahrung von Fotosammlungen*, Bern 2013, S. 55-62

Fotografie und Urbanität. Die Stadt vor der Kamera im 19. Jahrhundert, in: T. Liibek (Hg.): *Modus vivendi III - das Bild der Stadt von 17. bis 19. Jahrhundert (= Vana Tallinn XXI)*, Tallinn 2010, S. 320-331

Fotografie und Geschichte, Frankfurt/M. 2009 (revised edition of: *Photographie. Bilder der Neuzeit. Einführung in die Historische Bildforschung*, Tübingen 2000)

Bilder als Historische Quellen? Dimension der Debatten um historische Bildforschung, München 2009 (co-published with Martin Knauer)

Der Krieg im Bild - Bilder vom Krieg, Frankfurt/M. 2003 (co-published with Jens Baumgarten und Martin Knauer).

Matthias Kettner

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Matthias Kettner (1955*) is professor for Philosophy at the faculty of humanities and arts at Witten/Herdecke University (www.uni-wh.de) in Germany. From 2003-2006 he was appointed dean of the Faculty of Humanities and Arts and is now dean of research. From 1994-2000 fellow at the Institute for Advanced Studies in the Humanities at Essen (www.kwi-nrw.de) where his research focused on clinical ethics committees in Germany, communicative ethics, and the relationship of applied ethics, biopolitics, democracy and the mass media. From 1987-1993 he collaborated with Karl-Otto Apel in research on discourse ethics at Frankfurt, Johann-Wolfgang-Goethe-University (<http://www2.uni-frankfurt.de>), where he had earned a PhD in philosophy (thesis advisors: Karl-Otto Apel and Jürgen Habermas), a diploma in psychology, and his postdoctoral lecture qualification (Habilitation). Areas of competence: Discourse philosophy, German Idealism (Hegel and Kant), Philosophy of Culture.

Research interests: Theory of Communicative Rationality, Applied ethics in Medicine and Economics, Organization Ethics, Foundations of Ethics, Discourse Ethics, Philosophy and Psychoanalysis, Cultural Theory.

Books since 2003

Die Privatisierung von Krankenhäusern - Ethische Perspektiven. [Privatization of Hospitals – Ethical Perspectives] Co-edited with Friedrich Heubel & Arne Manzeschke. VS Verlag für Sozialwissenschaften: Wiesbaden 2010.

Reflexionen über das Unbewusste. Philosophie und Psychologie im Dialog. [Thinking about the Unconscious. Philosophy and Psychology in Dialogue] (Co-edited with Wolfgang Mertens. Vandenhoeck & Ruprecht: Göttingen 2010.

Wirtschaftsethik in der Medizin. Wie viel Ökonomie ist gut für die Gesundheit? [Business Ethics

in Medicine. How much Economics is Good for Health-Care?] Co-edited with Peter Koslowski. Wilhelm Fink Verlag: München 2011.

Ökonomisierung und Kommerzialisierung der Gesellschaft. Wirtschaftsphilosophische Unterscheidungen. [Economisation and Commercialisation of Society. A Topic for Philosophy of the Economy] München: Wilhelm Fink Verlag 2011.

Über Kultur. Theorie und Praxis der Kulturreflexion. [On Culture. Theory and Practice of Cultural Reflexion] Co-edited with Dirk Baecker & Dirk Rustemeyer. Transcript Verlag: Bielefeld 2008.

Wunscherfüllende Medizin. Ärztliche Behandlung im Dienst von Selbstverwirklichung und Lebensplanung. [Medicine of Desire. Medical Knowledge at the Service of Self-Realization and the Individual Good Life] Campus Verlag: Frankfurt 2009.

Filosofia trascendentalpragmatica – Transzendentalpragmatische Philosophie. [Transcendental-Pragmatic Philosophy] Co-edited with Michele Borrelli, Cosenza: Pellegrini Editore 2007.

Biomedizin und Menschenwürde. [Bio-Medicine and Human-Dignity] Suhrkamp Verlag, Frankfurt 2004.

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Sina Keesser studied architecture at the University of Karlsruhe in 2006 and received her Dipl.-Ing. in 2006. After working as a freelance architect for two years, she started studying urban and environmental history as well as sociology of space at the University of Darmstadt. She received her masters degree in 2012. In the same year she joined the Research Training Group Topology of Technology in Darmstadt. Her PhD project deals with the history of the profession of the architect from 1950 to 1980. She focuses on what is known as the 'crisis in architecture,' characterized by a loss of social status and autonomy. She claims that architects after the Second World War lacked certain characteristics that usually define a profession and therefore argues that professional associations, institutionalized training and licensing were of less importance to a younger generation of architects. Instead she proposes to describe the architectural practice as situated in a market economy and more importantly in a media society.

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As a professor of Urbanization Policies H. Çagatay Keskinok studied city planning, public administration and political science at Middle East Technical University (METU), Ankara, Turkey. Additional to his various academic contributions to the field of urban policy and planning, he also worked at the Municipality of Ankara between 1979 and 1982. He has been teaching in the City and Regional Planning Department since 1984 at METU, Faculty of Architecture as well as in Urban Policy Planning and Local Governments Graduate Program.

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Dr. Peter M. Lenhart holds a M.Sc. in aerospace engineering from RWTH Aachen and a Ph.D. in aerospace engineering from TU Darmstadt. He is a senior lecturer for Human Factors Engineering at the Zurich University of Applied Sciences (ZHAW). His research is devoted to Human Centred Design in aviation with a focus on Human Drone Interaction. Dr. Lenhart is an active private pilot since 1988 and enjoys flying gliders and airplanes in his spare time.

Recent Publications

Lenhart, Peter Marcus (2014). Der Mensch im Mittelpunkt - Cockpitgestaltung im Zeitalter der Automatisierung. In: Hesselbarth, Hanfried; Robert, Thierry (Hg.). Verantwortung in der Mobilität - technische und rechtliche Aspekte. 15. Automotive Day 2014. (33-35). Biel: Automotive Competence Network Switzerland (ACN-CH).

Vontobel, Martin; Rust, Marcel; Lenhart, Peter Marcus (2014). Sprachsteuerung, eine alternative Bedienungsart im Umgang mit Automatisierung. In: Grandt, Morten; Schmerwitz, Sven (Hg.). Der Mensch zwischen Automatisierung, Kompetenz und Verantwortung. 56. Fachausschusssitzung Anthropotechnik. (293-296). DGLR Bericht, 2014-01. Bonn: Deutschen Gesellschaft für Luft- und Raumfahrt - Lilienthal-Oberth e.V. (DGLR).

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Christian Lenk studied philosophy, political sciences and social anthropology at the University of Hamburg (Magister Artium 1998). He concluded his Ph.D. thesis at the University of Münster's Faculty for Philosophy in the field of medical ethics in 2002 (Dr. phil.). The title of the thesis was Therapy and Enhancement. He was invited to several research stays at Marburg University (1998-99), Swansea University, Wales / UK (2008-09), and Zürich University, Switzerland (2011). He received stipends and research grants from the German Ministry for Education and Research (BMBF), the German Research Society (DFG), the Leverhulme Trust (UK), and the European Commission.

He served as scientific reviewer (inter alia) for the Berlin-Brandenburg Academy of the Sciences (BBAW), the UK Medical Research Council, and the Research Foundation Flanders (FWO). From 2002-2008, he was an assistant professor at the Dept. for Ethics and History of Medicine at the University of Göttingen, Germany. He received the habilitation for medical ethics and theory of medicine at the Medical Faculty of the University of Göttingen in 2008. Since 2008, he is a Privatdozent. From 2004-07, he was the supervisor for the Göttingen subproject of the EU-project PropEur (Property Regulation in European Science, Ethics and Law). From 2008-11, he was the scientific co-ordinator of the EU-project Tiss.EU on the ethical and legal aspects of genetic research with human cells and tissue, especially in biobanks. Since 2002, he was a member of the research ethics committee (REC) at the University Medical Center Göttingen, and the deputy chair in the years 2010-11. He changed to Ulm University in autumn 2011 and works there since then as the REC's acting director.

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Michael Liegl is Senior Research Associate at Lancaster University and a Post-Doc Researcher at Hamburg University. In his research he investigates the interplay of technology, spatial organization and social relations with a focus on the layering and hybridization of online and offline collaboration and ubiquitous computing. He pursued this interest in a study on the organization of an urban artistic community and its audio-visual practices, the place making practices of digitally mobile creative freelancers and patterns of spatial mobility in location based social networks such as the GPS enabled smartphone dating app grindr.

Currently, he engages in participatory design research and in the exploration of social, legal and ethical implications of IT supported emergency response in EU FP7 funded Bridge project <http://bridgeproject.eu/en>. He is also the post-doc coordinator of the PhD Program "Loose Couplings. Collectivity at the intersection of Urban and Digital Space" at Hamburg University.

Recent publications include: 'Digital Cornerville' (Lucius & Lucius 2010), 'Grindr: Empirical Observations on Some Contemporary Mediations of the Pick-Up-Line' (Springer 2014), 'Media Assemblages, Ethnographic Vis-Ability and the Enactment of Video in Sociological Research' (distinktion 2014), 'Nomadicity and the Care of Place' (Journal of CSCW 2014) and 'Collective Intelligence In Crises' (Springer 2014).

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Ulrike Lindner studied in Munich and Oxford and received her PhD in 2001 for a thesis on the comparative history of post-war public health policies in West Germany and the United Kingdom. She then applied this focus on comparative and entangled history to British and German colonialism in southern and eastern Africa; her research was supported by a number of prestigious fellowships and grants. In 2013, she was appointed Professor for European and colonial history at the University of Cologne.

Latest Monograph

Koloniale Begegnungen. Deutschland und Großbritannien als Imperialmächte in Afrika, 1880-1914, Frankfurt a.M./New York (Campus), 2011. [Colonial Encounters. Germany and Great Britain as Imperial Powers in Africa, 1880-1914]

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Antje Matern (Dr. rer. pol.) is a PostDoc research in the field of spatial and infrastructure planning at the Technical University of Darmstadt. Her research is focused on sustainable developments of cities and its infrastructures on the background of the transformation of infrastructure regimes and place-specific arrangements (ongoing project in a interdisciplinary research team and funded by the German Research Foundation). She has a background in Human geography, worked in the field of regional development and urban governance from European to city-regional level and holds a PhD in spatial planning where she analysed the construction of space in large scale regions.

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Dr Julianne Nyhan is lecturer in Digital Information Studies in the Department of Information Studies, University College London. Her research interests include the history of computing in the Humanities and most aspects of digital humanities with special emphasis on meta-markup languages and digital lexicography. She has published widely, most recently Digital Humanities in Practice (Facet 2012), and the best selling Digital Humanities: a Reader (Ashgate 2013). Among other things, she is a member of the Arts and Humanities Research Council (AHRC) Peer Review College, the communications Editor of Interdisciplinary Science Reviews and a member of various other editorial and advisory boards. She is also PI of the 'Hidden Histories: Computing and the Humanities c.1949–1980' project. She tweets @juliannenyhan and blogs at <http://archelogos.hypotheses.org/>. Further information is available here: <https://www.ucl.ac.uk/dis/people/juliannenyhan>

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After his habilitation at the University of Leipzig in 2004 and professorships at the University of Oldenburg and the University of Münster Stefan Panzer is now Full Professor at Saarland University in Saarbrücken (GER).

He is interested in the research of motor control and learning. During the last five years he has worked on motor skill learning, relearning, transfer and movement sequence learning by physical practice or observational learning. Therefore he has

established an inter-manual transfer, an inter-manual practice paradigm, and a visual half-field paradigm to study effects of learning and relearning in movement sequences. Nearly all of his research in sequences learning is done with international colleagues. As a visiting scientist for several times at the Texas A & M University he has gathered knowledge of the US research system. In addition he has a strong relation to the University of Poitiers to Prof. Dr. Yannick Blandin. They are engaged in a bilateral project between Germany and France. Stefan Panzer is a Member of the North American Society for the Psychology of Sport and Physical Activity, the Society of Neurosciences and the German Society of Sport Sciences. Furthermore he is a reviewer for several high quality journals, e.g. Behavioural and Brain Research, Journal of Motor Behavior and Human Movement Science, and a reviewer for Grants in the German Research Association (DFG), the Netherlands Organisation for Scientific Research (NWO); and the Croatian Science Foundation.

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Bronwyn Parry is an economic and cultural geographer who is now professor of social science, health and medicine at King's College London. She has written extensively on the rise and operation of the life sciences industries and on the commodification of bodily parts and bioinformation (Trading the Genome: Investigating the Commodification of Bio-information). She explored the social, ethical and legal complexities of biobanking and public attitudes to bodily donation through a three-year ethnography of the Addenbrooke's Hospital brain bank, work that culminated in a ground-breaking interactive public exhibition with the artist Ania Dabrowska and a book entitled Mind Over Matter completed in 2011. Bronwyn was a fellow of the Nuffield Council on Bioethics from 2007–2013 contributing to reports on the forensic use of bioinformation, the recent crisis in public health in the UK and dementia care. She has also undertaken comparative work on intellectual property regimes acting as a consultant for the UN and the UK governments in this capacity and sits on the editorial board of Economy and Society. Her edited collection on the globalisation of medical services, professionals and body parts entitled Bodies Across Borders will be published by Ashgate in June 2015. She is currently undertaking a major Wellcome Trust-funded International bioethics project that investigates the production, consumption and regulation of assisted reproductive services in rural and urban India.

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Since 1994 Dr. Gerhard Paul is professor of history and didactics of history at the University of Flensburg. His work focusses on sovereignty and violence, history of mentalities, mediality of history and Sound History in the 20th century. He is well known for his research on Visual History. His book "Das Jahrhundert der Bilder" was a non-fiction bestseller in 2009. From 1989 to 2013 his research was funded several times by the VolkswagenStiftung and the Fritz-Thyssen-Stiftung: "Resistance and disobedience in the Saarland 1935–45", "The Gestapo and German society", "Social History of political terror" and "BilderMACHT"

Recent publications

Paul, Gerhard/Schock, Ralph (Hrsg.): Sound des Jahrhunderts. Geräusche, Töne, Stimmen 1889 bis heute, Bonn: Bundeszentrale für politische Bildung 2013.

Paul, Gerhard: BilderMACHT, Göttingen: Wallstein 2013.

Paul, Gerhard (Hrsg.): Das Jahrhundert der Bilder, 2 Bde., Göttingen: Vandenhoeck & Ruprecht 2008–2009.

Paul, Gerhard (Hrsg.): Visual History. Ein Studienbuch, Göttingen: Vandenhoeck & Ruprecht 2006.

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Dejan Petkov is a doctoral student at the research training group “Topology of Technology” at TU Darmstadt. He holds a Diplom (M.Sc. equivalent) in Business Administration from University of Mannheim (2007) and a M.Sc. degree in Traffic and Transport from TU Darmstadt (2012). His main areas of research interest are public transport planning, tramway systems as well as urban and transport geography.

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Ilia Petrov is a Professor at Reutlingen University, Germany since 2012. Prior to that he was a Post-Doctoral fellow with the Databases and Distributed Systems Group at the Technische Universität Darmstadt. His research interests span the following areas: data management; data-intensive systems on evolving hardware; and virtualization. He worked on data management and Business Intelligence at SAP. He holds a Ph.D. from the University of Erlangen-Nürnberg in 2005.

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Manuel Reinhard is a Ph.D candidate in Philosophy at the Technische Universität Darmstadt (Germany). Beyond the distinction between philosophy, science or the fine arts, he is particularly interested in how self-narratives, self-realization, and the perception of the world we are living in, shape our assumptions about possibilities and impossibilities, do's and don'ts, freedoms and necessities – and vice versa. Based on this interest, Manuel Reinhard's current research starts a deconstructive reading of Jacques Derrida's own deconstructive readings. Manuel Reinhard earned his graduate degree (Magister) in Philosophy, Psychology and Pedagogy at the University of Trier (Germany). As a student, he worked as a research assistant (University of Trier), as a member of the Strategy & Communication Department at DekaBank and as a stage actor (TheaterUmriß). During his Magister studies Manuel Reinhard was holder of a scholarship granted by the Studienstiftung des Deutschen Volkes. Until April 2015, he is Visiting Scholar at the Department of Romance Languages & Literatures at Harvard University.

Recent Publications

Reinhard, Manuel (in press); Krise der Wissenschaft? Krisen der Wissenschaften!. In: Philokles. Zeitschrift für populäre Philosophie.

Reinhard, Manuel 2013; (Rezension) Dieter Höltershinken: Die Nichtplanbarkeit in Erziehung und Bildung. Ein Essay über vergessene Erfahrungen und Erkenntnisse in der Pädagogik. In: Vierteljahrsschrift für wissenschaftliche Pädagogik, Bd.89, Nr.4, S.664-668.

Reinhard, Manuel 2013; Zeitgenössische Philosophien der Grenze und Andrea Fraser: Grenzen vs. Schwellen. In: Critica. Zeitschrift für Philosophie und Kunsttheorie. Bd.3, Nr.2, S.11-16.

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Yvonne Rogers is the director of the Interaction Centre at UCL (UCLIC), deputy head of department for Computer Science and a professor of Interaction Design. She is the Principal Investigator for the Intel-funded Cities collaborative research Institute (cities.io). She is also an honorary professor at University Cape Town and has spent

sabbaticals at Stanford, Apple, Queensland University, Melbourne University, University Cape Town and UCSD. Her research is in the areas of ubiquitous computing, interaction design and human-computer interaction. This involves informing, building and evaluating novel user experiences through creating and assembling a diversity of pervasive technologies. She has been instrumental in promulgating new theories (e.g., external cognition), alternative methodologies (e.g., in the wild studies) and far-reaching research agendas (e.g., “Being Human: HCI in 2020” manifesto), and has pioneered an approach to innovation and ubiquitous learning. Her current research focuses on community engagement and behavioural change, through augmenting everyday, learning and collaborative work activities with interactive technologies. She has published over 200 articles, including a recent monograph “HCI Theory: Classical, Modern and Contemporary”. She is a co-author of the definitive textbook on Interaction Design and HCI now published in its 4th edition that has sold over 150,000 copies worldwide and has been translated into 6 languages. She is a fellow of the BCS and the ACM CHI Academy. She was also awarded a prestigious EPSRC dream fellowship concerned with rethinking the relationship between ageing, computing and creativity.

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After finishing her studies of Media Management and gaining various experiences in the area of TV, film production and journalism, Bahar Sen started to study “Philosophy of Culture” at the University of Paris (Paris VIII) and the University of Stuttgart. As a scholarship holder of the Friedrich-Ebert-Stiftung she obtained her binational Master’s degree in 2010 with a work on “the compatibility of political responsibility and esthetic life forms through the example of Stefan Zweig”. Since 2012 she is working on her PhD-project called “M – centrality and dissolution” where she develops the concept of centrality of Henri Lefebvre by using Georg Simmel’s reflections on a “Philosophy of money”. The combination of monetary logic and urbanity can be seen as an innovative cultural-philosophical contribution to current urban theories. The research project includes system theoretical approaches as well as phenomenology and esthetics. In 2014 Bahar Sen was a visiting scholar at the Faculty of Humanities at Charles University in Prague.

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Ruth Sonderegger (1967) is Professor of Philosophy and Aesthetic Theory at the Academy of Fine Arts Vienna. Publications (amongst others): *Für eine Ästhetik des Spiels. Hermeneutik, Dekonstruktion und der Eigensinn der Kunst*, Frankfurt a. Main 2000; co-editor (with Diedrich Diederichsen et al.) of *Golden Years: Queere Subkultur zwischen 1959 und 1974*, Graz 2006; co-editor (with Karin de Boer) of *Conceptions of Critique in Modern and Contemporary Philosophy*, Houndmills Basingstroke: Palgrave Macmillan 2011; co-editor of *Art and the Critique of Ideology*. After 1989. Edited by Eva Birkenstock, Max Jorge Hinderer Cruz, Jens Kastner, and Ruth Sonderegger, Bregenz / Cologne 2013; co-editor (with Jens Kastner) of *Pierre Bourdieu und Jacques Rancière. Emanzipatorische Praxis denken*, Wien 2014; co-editor (with Pascal Gielen, Thijs Lijster and Suzana Milevska) of *Spaces for Criticism (= Art in Society book series)* Amsterdam (forthcoming 2015).

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PD Dr. Dierk Spreen is a sociologist whose main research interests include political sociology, security studies, sociology of violence and war, sociology of the media sociology of culture and general sociology. He was associate professor at the University of Paderborn and the University of Lüneburg.

Recent publications

Upgrade Culture. The Body in the Society of Enhancement, Bielefeld: transcript 2015

Sociology of Space Travel (with Joachim Fischer), Bielefeld: transcript 2014

Kittler (co-edited with Herbert M. Hurka), Berlin: Ästhetik & Kommunikation 158/159 2013

War and Civil Society (co-edited with Trutz von Trotha), Berlin: Duncker & Humblot 2012

War and Society. The Constitutional Function of War for Modern Societies, Berlin: Duncker & Humblot 2008

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Nora Thorade is a research assistant at the Department of History at Ruhr University Bochum. She is currently completing her PhD about small mining districts in Germany during the 19th century and focusses the historical significance of hard coal for the industrial development. Her research interest are economy, culture and technology of energy resources as well as the constitution and re-utilization of industrial landscapes.

Publications

Nicole Hesse and Nora Thorade: Produzieren, Herstellen, Fabrizieren: Neue historische Perspektiven auf die Produktionstechnik. Konferenzbericht der 23. Jahrestagung der Gesellschaft für Technikgeschichte, in: Technikgeschichte 4/2014.

Juliane Czierpka, Kathrin Oerters and Nora Thorade (Eds): Regions, Industries and Heritage. Perspectives on economy, society and culture in modern Western Europe (Palgrave Studies in the History of Social Movements), Basingstoke u.a.: Palgrave Macmillan (expected 2015).

Juliane Czierpka, Kathrin Oerters and Nora Thorade: Regions, Industries, and Heritage. Perspectives on Economy, Society, and Culture in Modern Western Europe, in: idem.

Nora Thorade: „Coal, transport and industrial development. The impact of coal mining in Lower Silesia“, in: idem.

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As a city and regional planner from Turkey, Gül Tuçaltan obtained her Bachelor's degree in 2006 from the Middle East Technical University (METU), Ankara, Turkey. Right after graduation, she worked as a research and teaching assistant at METU for about 3.5 years. In the meantime, she earned her M.S. degree in the Urban Policy Planning and Local Governments Department, METU. Then she spent a year in the Urban Systems programme at NJIT, Newark, New Jersey, where she got another Master's degree. Afterwards, in Turkey, she worked in national and international organizations for almost three years, especially on projects with an environmental focus. Since January 2014, she is a scholarship holder, PhD candidate and a project assistant at TU Darmstadt. Her research focuses on the relationship between urbanization and changing urban waste management practices in Ankara, Turkey.

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I competed by Ph.D. from the University of Michigan in 1989 and was a Post-doctoral Fellow at the University of Illinois. The focus of my research is on the development and education of spatial thinking skills, with a particular focus on the role they play in learning STEM (Science, Technology, Engineering, and Mathematics). Much of my research is interdisciplinary; I have partnerships with

geoscientists, environmental scientists, and mathematicians. Uttal is a Fellow of the American Psychological Association and the Association for Psychological Science. His meta-analysis of studies of spatial training received the 2014 George Miller Award from the American Psychological Association for best paper in general psychology.

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Silke Vetter-Schultheiß is a PhD student at the Research Training Group „Topology of Technology“ at Technische Universität Darmstadt. In 2011 she earned her M.A. in History and Philosophy. Before joining the Graduate School in 2013 she worked as part-time assistant editor of the historical and political scientific journal “Neue Politische Literatur”. She taught courses on Walter Benjamin in combination with Media History and on Visual History.

Her PhD thesis examines the politics of pictures, employing the example of images used by German environmental groups between 1950 and 1990. She focuses in particular on the inherent power of images to exert influence on their surroundings. Using the methodic approaches of Visual (Cultural) History, she examines if the images in question developed performativity as a form of social action in its own right.

Publications

Argumenten auf der Spur. Über Logik und Sinnerzeugung des Visuellen, in: Sprache für die Form 4 (Spring 2014).

Mensch, Natur und die Moderne. Rezension zu Paulsen, Adam/Sandberg, Anna (Ed.): Natur und Moderne um 1900. Räume, Repräsentationen, Medien, Bielefeld 2013, in: Neue Politische Literatur 58 (2013), pp. 505–506.

Praktische Theorie. Rezension zu Brocks, Christine: Bildquellen der Neuzeit, Paderborn u. a. 2002, in: Neue Politische Literatur 58 (2013), pp. 250–251.

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David Waldecker is a PhD student at the interdisciplinary post-graduate program “Topology of Technology” at TU Darmstadt. His PhD project explores the recording studio from two angles: via ethnography and a rereading of Adorno’s sociology of music. Before joining the program in April 2013, he earned his M.A. degree in sociology, philosophy and American studies at Johannes Gutenberg-Universität Mainz, Germany in October 2012. His M.A. thesis is an ethnography of mp3 player usage in public places. During his studies, he visited francophone Université de Montréal in Quebec, Canada for two semesters.

David taught courses on the sociology of music and on the sociology of social inequality in education. A paper on the ethnography on the recording studio is bound to appear in Brabec de Mori / Martin Winter (ed.): Auditive Wissenskulturen, VS-Verlag.

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Marie-Christin Wedel is a scholarship holder of the DFG Research Training Group “Topology of Technology” at TU Darmstadt since 2012. The title of her PhD topic is: Of moving and meeting spaces. Leisure time roller skating in urban areas in Germany and the United States from the late 19th century to the present. She grew up in Wiesbaden and studied modern history at TU Darmstadt (Bachelor degree in 2009) and afterwards studied urban and environmental history at TU

Darmstadt and University of Leicester, England (Master degree in 2012). She did internships at Hessisches Hauptstaatsarchiv Wiesbaden, at Deutsches Filmmuseum in Frankfurt am Main and at the Hessisches Kultusministerium. Next to her studies, she worked as a student assistant at Historische Kommission für Nassau, as a student employee for projects at HS Rhein Main Wiesbaden, as a student assistant at the department of History of Technology at TU Darmstadt and as a student assistant for the project: Chemical Communities: Shaping Policy-Relevant Science and Industrial Transformation in an International Comparative”, of Virginia Tech University, USA.

Publications

Together with Mikael Hård: „Judengeschäfte: Warenhäuser im urbanen Kontext 1876-1938“, in: Andreas Hoppe (Hg.): Raum und Zeit der Städte: Städtische Eigenlogik und jüdische Kultur seit der Antike, Frankfurt a.M.: Campus Verlag, 2011

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Heike Weber is Professor of History of Technology at the Bergische Universität Wuppertal. Her research lies at the intersection of history of technology, urban history, consumption history and environmental history. She has published on the history of portable media electronics, including the German monograph *Das Versprechen mobiler Freiheit. Zur Kultur- und Technikgeschichte von Kofferradio, Walkman und Handy* (transcript, 2008). Currently, she is researching the history of municipal waste in Germany and France respectively. In this context, she co-edited a special issue on the Social history of Recycling and Re-use in the 20th Century (Contemporary European History, 2013, with Ruth Oldenziel) and has written on the dimension of "unmaking" things (cf.: „Entschaffen“: Reste und das Ausrangieren, Zerlegen und Beseitigen des Gemachten. Technikgeschichte 81 (1), 2014)

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Professor Niels Werber Ph.D. (*1965) holds the Chair for Modern German Studies at the University of Siegen. He was fellow of the Center for Historical and Cultural Studies at Trier University and fellow at the Excellence Cluster of the University of Konstanz, Cultural Foundations of Integration. Main research topics are geopolitical semantics, media of literature, social insects, scenarios and self-description formulas of society. Mayor publications: *Geopolitics*, Hamburg: Junius 2014; *Word War I* (with Stefan Kaufmann and Lars Koch), Stuttgart: Metzler 2014; *Ant Societies. A History of a Cultural Fascination*, Frankfurt am Main: Fischer 2013.

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Anna-Katharina Wöbse studied in Bremen, Stockton-on-Tees and Bielefeld and works as a free-lance environmental historian and curator in Bremen. She has extensively published on media and the environment, human-animal relations, the history of the transnational environmental movement and environmental diplomacy. Currently, she is involved in a multidisciplinary research project on the transnational history of the world heritage site Waddensea and teaches environmental history at the University of Bielefeld. Her book *Weltnaturschutz: Umweltdiplomatie in Völkerbund und Vereinten Nationen, 1920-1950* (2012) explores the role of the League of Nations and the United Nations in the making of global environmental regimes.

Recent publications

„Zoos im Wiederaufbau und Kalten Krieg, Berlin 1955-1961“, gemeinsam mit Mieke Roscher.
In: Tierstudien April 2015, forthcoming

„Globales Gemeingut und das Naturerbe der Menschheit im Völkerbund und den Vereinten Nationen“. In: Global Commons im 20. Jahrhundert: Entwürfe für eine globale Welt, hrsg. v. Isabella Löhr u. Andrea Rehling (= Jahrbuch für Europäische Geschichte/ European History Yearbook, Bd. 15), München 2014, S. 83-108

„Der Knechtsand - ein Erinnerungsort in Bewegung“. In: Frank Uekötter (Hg.) Ökologische Erinnerungsorte. Göttingen 2014, S. 29-49.

Die Geschichte des Nationalparks Hohe Tauern. Gemeinsam mit Patrick Kupper und Beiträgen von Ortrun Veichtlbauer, Ronald Würflinger, Ute Hasenöhl, Georg Stöger. Salzburger Nationalparkfonds Hohe Tauern, Innsbruck 201

Ihrer Zeit voraus. Visionäre Frauen im Einsatz für den Umwelt- und Naturschutz, 1899 bis heute. Ausstellungskatalog. Gemeinsam mit Sabine Diemer. Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit, Berlin 2013.

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