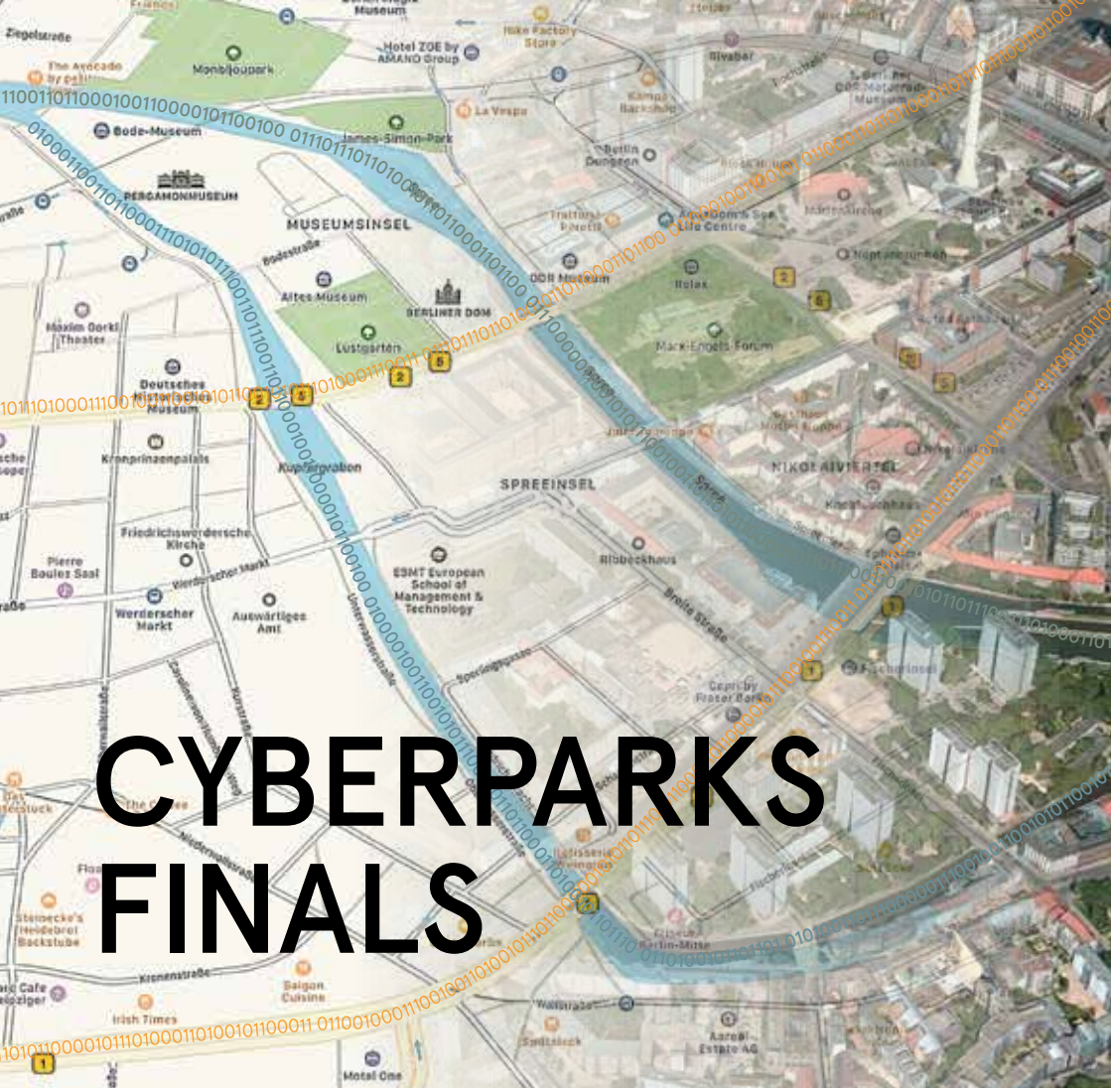


CYBERPARKS FINALS

CO-CREATION, BIG DATA, AND THE FUTURE OF DIGITALLY ENHANCED PUBLIC SPACES

Zentrum für Kunst und Urbanistik (ZK/U)
March 11th & 12th, 2018
Berlin, Germany

cyberparks

cost
EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

FLUSSBAD BERLIN

CyberParks
project

CyberParks
digital tools

COST Action
TU1306

Fostering knowledge about the relationship between Information and Communication Technologies and Public Spaces supported by strategies to improve their use and attractiveness

CyberParks is a network with 88 participants (coming from 31 countries) joining hands in sharing knowledge and experiences within a wide community and adding their weight towards creating more inclusive and liveable urban environment. CyberParks aims to increase the understanding of the complex relationships between values, preferences and needs on public spaces on one side, and functions and potentials of public spaces for quality of life on the other, along with digital advancements and their reflection on the urban fabric and placemaking. CyberParks brings together researchers, academia, practitioners and ICT developers, linking a framework for discussion on empirical findings and on designing strategies to derive key leanings and improvements in everyday urban life.

CyberParks is enhancing the body of research on issues related to users, and uses of public spaces, on physical activities and built environment. New tools, being tested in different cases are proving that technology can be the fuel that keeps the process of place-making in motion, as ICT enables the creation of platforms with digital engagement at their core. The empirical research is grounded by five working groups tackling different aspects of the nexus people, places and technology: Digital Tools exploring ICT-tools to research the use of, and user-behaviour in public spaces; Urban Ethnography dealing with cultural and sociological fieldwork, Conceptual Reflection on both philosophical and methodological approaches; Creating Cyberpark dealing with design research and the nurturing of innovative and creative open space design practices, and Networking & dissemination in charge of tailoring and transferring knowledge, formulation of research perspectives and follow ups.

CyberParks is founded by the European Programme Cooperation in Science and Technology (COST) in the period of April 2014 to April 2018 (www.cost.eu/COST_Actions/tud/TU1306). COST is a pan-European intergovernmental framework, whose mission is to enable break-through scientific and technological developments leading to new concepts and products and thereby contribute to strengthening Europe's research and innovation capacities.

It is a great pleasure and an honour to extend to all participants a warm invitation to share new views, insights and experiences in Berlin. Berlin is an exceptional location for the discussing and expanding CyberParks experiences. It is renowned as one of the world's most vibrant cities, with a quirky and innovative urban atmosphere.

Carlos Smaniotto

Foreword

The potential and benefits of information and communication technology (ICT) for the formation and re-conceptualization of public space can hardly be overstated. ICTs have fostered new ways of designing public space(s), such as in the mushrooming participatory co-creation formats for human-human as well as human-AI co-creation. ICTs have added new layers to public space, such as location-based information of various registers. ICTs have enabled new ways of operating and maintaining public goods and services, such as transportation and lighting. ICTs have successfully aspired to transform and virtualize functions of public space, such as social interaction and knowledge exchange. ICTs have produced new forms of interaction in public spaces such as for example in the gamification approach. And ICTs have brought about new forms of funding/financing such as in the case of crowd-funding models for public spaces. Sharing economy approaches for autonomous electric vehicles in particular have been 'the next big thing' to revolutionize public space for quite a while now, and the first focus of the finals conference is on the state of affairs of e-mobility in Berlin.

But despite the promises of participatory design, equal access and inclusiveness, liberation by way of the automation of repetitive routines, decentralization of governance, there is another role and impact of ICTs in public space, that, on the other hand, must not be understated. More than half a century after McLuhan resonated about the global village, digitalization and the progressive unfolding of what Wolfgang Coy has called the Turing-Galaxis has brought about economic, political, and social formations that actively undermine the role and function of public space on different levels. This other side of the digital, the risks ICTs bears for the formation of public space, is the second focus of the finals conference.

Friendly social media 'likes' are build on the same logic and algorithms that are also used for social scoring systems as rolled out on a big scale for example in China. The technical infrastructure of social media and sharing-economies inherently comprise the possibility of surveillance, with a perverse complicity and division of monitoring labor between democratic states and private quasi monopolistic corporations. The platform-oriented business models of Facebook, Google, Apple, Amazon etc. are simply the contemporary forms of capitalism – what has been labeled platform capitalism – that go after the highest profit margins and aspire to monopolize their economic position. These platforms feed on the aura of openness that they promote to the outside, but internally they are highly regulated and all seemingly free use is restricted by their authoritatively defined codes of conduct. These codes of conduct of the digital economy and platform capitalism are optimized for data harvesting, not for the creation of public space. The question is, whether the logic of platform capitalism can be aligned with the creation and cultivation of public space(s), or if both are incommensurable. Is, for example, Air-BNB a neutral platform with equal opportunities for all, or does it increase inequality, becoming even a racial gentrification tool, as the activist project insideairbnb has argued? Contrary to the simplistic additive interpretation of the role of ICTs, they are more than just an

additional layer to existing public spaces; they inscribe their own specific materiality into public space, sometimes amending it, sometimes overriding or privatizing it, or turning it into what Keller Easterling has dubbed infrastructure space. ICTs are accessible and operational only by way of interfaces. With the proliferation of ICT, interfaces for public space(s) develop, and eventually will converge into urban interfaces for entire cities. But what will these urban interfaces be? Tools for the empowerment of citizens and demand-driven and feedback-controlled planning and maintenance, or urban operating systems that will grow to be the exclusive way or portal to access public space(s) and the city? It is from this perspective, that Greenfield has characterized the smart city paradigm of making the city – and public space(s) as one of it substantial ingredients – machine-readable as a technologically updated recurrence of modernist planning totalitarism.

Regardless whether this is an adequate historical analogy, what seems to be common understanding is that the formation of public space(s) in the Turing-Galaxy follows a logic of it's own, and this logic and it's multiple agency need to be understood and factored in into the theoretical modeling and practical design and planning of computational public space(s). In the final CyberParks conference, we aspire to put all the of exiting ideas and concepts of how to create better public space(s) that have been developed and discussed, and all the case studies and work-in-progress projects that have been examined and presented in the course of the CyberParks project, once again in a critical perspective, like the initial mission statement of CyberParks announced. It's the main reason, Flussbad Berlin - as an non-profit / non-governmental / bottom-up initiative - has decided to be the host of CyberParks finals, deliberately presenting its goals for a very prominent, physical public space within the center of Berlin in a conference evolving around the digital realm. Creating better public space(s) is both a question of technical feasibility and of a positioning regarding the political and economical impacts of making public space(s) machine-readable – which we hope to discuss with you in the CyperParks finals, both in looking back at the results but also in looking forward towards the next projects.

Jan / Kai

Jan Bovelet

Jan Bovelet (Dipl.-Ing., Mag. Phil.) is an author, theoretician, and architect based in Berlin, Germany. In his work he focuses on the impact of digitalization processes on architectural design and the production of space, both theoretically and by way of artistic research projects. What he is interested in is the potentials of information and communication technologies (ICT) for the design of architectural and urban projects, both as design instruments and on the level of the design of the agency driving these projects. In this perspective, architectural theory becomes a critical project (again), that engages in the contemporary production of space on the basis of theoretical arguments. Jan has worked on and curated various exhibitions, publications and conferences. Currently, he is working at the department of architectural theory and design at ***University of Kassel****, Germany, and enrolled as a PhD candidate at the department of architectural theory at* ***Technical University, Berlin****. An activity stream of his can be found at www.stadtinnenarchitektur.de*

Kai Dolata

Kai Dolata studied Architecture at Technical University Dresden. He has worked as an urban and regional planner for several institutions such as Büro für urbane Projekte and Kassel University as well as with his own collaborative group ***urbikon.com****. He served as a Board member for the Regionale Südwestfalen and is founding member of european architect's network wonderland. Besides his professional education as an architect his focus on ICT has begun with digital techniques in the late GDR and has been professionalized both in the e-commerce sector and the media-art, serving as project manager in companies like ART+COM (www.artcom.de). In 2012 he became a founding member and since autumn 2014 an elected board member of the association* ***Flussbad Berlin****, whose goal is to transfer a Spree river side-arm within Berlin's city centre into an accessible public space. (www.flussbad-berlin.de). His main interest has always been the opportunity given by digital methods and instruments within the urban and regional planning realm, both as communication tool and as a working device.*

Carlos Smaniotto Costa

Carlos Smaniotto Costa (PhD) holds a diploma degree in Landscape Architecture and Environmental Planning and a PhD degree in Urban and Landscape Planning from the Leibniz University Hanover/Germany. He is professor of Landscape Design and Urban Ecology in Masters and PhD programmes in Urban Planning at the ***Lusófona*** *and member of its Interdisciplinary Research Centre for Education and Development, where he is the coordinator of the research unit on Territorial Studies. He has been working in different research projects with different issues but all centred in sustainable urban development and transforming cities in more liveable spaces. He has several publications in professional journals in Portuguese, German, English, and Italian. He is the* ***chair*** *of CyberParks Project.*

Ina Šuklje Erjavec

Ina Šuklje Erjavec (M.Sc) is graduated (diploma and Master of Science) in Landscape Architecture at the ***University of Ljubljana****. She has a national status of researcher and is an authorized landscape architect and spatial planner with the licence. At the Urban Planning Institute she is senior researcher and a project leader of several projects at the national and international level. She has comprehensive research experience in the theoretical and empirical studies of urban landscape planning and design, as well in developing of urban landscape planning and design guidance and methodologies, and practical issues of urban landscape design and implementation. Among others she was a project leader for Green System development in several cities, "Basic guidelines and rules for the urban green development for Slovenia cities and Northern City park of Ljubljana, and a project partner in GreenKeys, In.Flow.ence and Sha.p.e.s EU projects. She is a* ***Vice-chair*** *of CyberParks project.*

Gabriela Maksymiuk

Gabriela Maksymiuk, PhD, is a landscape architect and a planner. She holds a M.Sc. degree in Environmental Sciences (cum laude) received from Wageningen University, the Netherlands, and a M.Sc. and PhD degree in Landscape Architecture (with distinctions) received at Warsaw University of Life Sciences, Poland. She currently works as assistant professor at the Department of Landscape Architecture, ***Warsaw University of Life Sciences****, Poland. Her research focuses on environmental bases for spatial planning as well as planning and design of urban green spaces, with a special interest for green infrastructure concept and application of ICTs in urban design process.*

Catarina Patrício

Catarina Patrício (Lisbon, 1980) is an Artist and a Post-Doctoral Fellow in Contemporary Culture and New Technologies at CIC.Digital (FCSH-UNL), researching on «Smart City: Cinema, Utopicity and Governmentality for the Post-Industrial City» with a fellowship provided by FCT (Portuguese Foundation for Science and Technology). Lecturer of Anthropology of Space at ***Lusófona University of Humanities and Technology*** *since 2010, Catarina Patrício is graduated in Painting from the Faculty of Fine Arts University of Lisbon (FBA-UL: 1998-2003) and has studied photography and engraving as ERASMUS student at the Fachhochschule Bielefeld. In 2008 Patrício completed her master studies in Anthropology of Social Movements at Faculty of Social and Human Sciences University Nova of Lisbon (FCSH-UNL). Patrício holds a PhD in Communication Sciences from FCSH-UNL and her research on Technics, Warfare and Cinema was granted with a fellowship provided by FCT (2009-2014). https://catarinapatricio.weebly.com/*

Aelita Skaržauskiene

Prof. Aelita Skaržauskiene is an initiator and scientific leader of a research program for "Social technologies" and European-Asian knowledge consortium at ***MRU****. She is also executive editor of international scientific research journal and member of different international scientific committees. She has substantial expertise and experience in the elaboration and implementation of scientific and study projects, coordinating participation of the MRU in more than 10 different projects. In 2007-2008, Aelita was leading the Project for development of Self-managing teams in European Parliament in Luxemburg and Brussels with DEMOS Group Belgium (www.demosgroup.com). She developed her competencies during the internships in the fields of social innovation and technologies at Ajou and EWHA universities in South Korea, USM university in Malaysia, Kasetsart University in Thailand, in universities of Kingston, Milano, Zagreb, J. Kepler University in Austria, Washington University, USA etc. She also has a degree for Cluster Facilitator from IESE Business School in Barcelona.*

Eva Savina Malinverni

Eva Savina Malinverni is currently an Associate Professor in Surveying and Photogrammetry (Geomatic) at the ***Università Politecnica delle Marche****, Engineering Faculty. She received her Architectural degree and the PhD in Surveying and Cartography Sciences from the Polythecnic of Milan. Her research areas of interest include surveying techniques (aerial, mobile, close range), remote sensing image analysis, GIS data processing, numerical and thematic mapping and web geo-exploration data. She applied a lot of research projects about methods of collection, processing and representation of environmental and cultural heritage data. She partecipates at different international conferences and she is author of more than 150 scientific papers.*

Kåre Synnes

Kåre Synnes, PhD, is a Professor in Pervasive and Mobile Computing at ***Luleå University of Technology*** *(LTU). He is also a Guest Professor in Media technology at Bleking Institute of Technology (BTH). He is doing research in pervasive computing and multimedia communication, lately with a focus on social computing and assistive technologies for eHealth. He has since 1995 been involved in numerous European projects, such as FP4 MATES and FP7 Dem@Care, and has acted as an expert/reviewer for European projects and proposals since 2008. Kåre Synnes is finally a cofounder of the IST Prize winner Marratech AB, a direct result of the FP4 MATES project, which was acquired by Google in May 2007 to form the basis for Google+ Hangouts.*

Martijn de Waal

Martijn de Waal is a professor at the Play & Civic Media research group and head of research at the faculty Digital Media & Creative Industries at ***Amsterdam University of Applied Sciences****. In 2014 I wrote The City as Interface (Rotterdam: Nai010 Publishers), a book on the relation between digital media and the urban public sphere. Other key articles include Owning the city: New media and citizen engagement in urban design (co-authored with Michiel de Lange) and The Ideas and Ideals in Urban Media Theory (published in Foth. et. al. From Social Butterfly to Engaged Citizen, Cambridge: MIT Press 2012). I am currently working on a new book on The Platform Society, with Jose van Dijck and Thomas Poell. With Michiel de Lange, in 2007 I founded TheMobileCity.nl, an international think tank and research network on New Media and Urban Culture. Over the last few years we have organized a variety of conferences and workshops, in amongst other Amsterdam, Rotterdam, Shanghai and Shenzhen. Some of my recent activities and research projects include The Hackable City, a research project on collaborative citymaking in the Network Society, and Design & The City, a four day event I curated on citizen-centered design approaches for the smart city.*

Stefan Zedlacher

Stefan Zedlacher graduated at Graz University of Technology - Faculty of Architecture. Working as scientific assistant at the Department of Architecture and Media he did research in space communication and teaching digital design. Starting independent work in 2005 he is currently CEO in the company ***informationsgestaltung.net****. His focus is the development of unique (web-)applications, prototyping the connection between real spaces and the digital, data driven cyberspace. 2016 he contributed in the Geymueller-research-project at Graz University, Institute of Art History. Currently he is working on project introducing NFC technology to real world processes, archaeological software and digital (AR) imaging for medieval research.*

All CyberParks conferences and meetings were hosted by different institutions. The scientific profiles of all members of the CyberParks project can be accessed at the project website.

Dr. Benjamin Seibel is the director of the Ideation & Prototyping Lab at ***Technologiestiftung Berlin*** *(TSB). Through research and development of urban technologies, TSB has been shaping Berlin's innovation policies for more than two decades.*

The Death and Life of a "Smart City"

Benjamin Seibel, Technologiestiftung Berlin

bottom-up, corporatism, localism, participatory city, smart city

The corporate vision of the „Smart City" is flawed: It puts technology before people and ignores almost everything that makes cities unique, interesting and fun. Bottom-up alternatives are emerging, but they are often struggling for recognition and support.

What can local governments do to facilitate citizen-driven approaches to urban innovation?

*Mikael Wiberg is a professor of Informatics at **Umeå University**, Sweden. He has held positions as chaired professor in HCI at Uppsala University and as research director for Umeå Institute of Design. His research focuses on concept-driven interaction design research, and he is forum editor for "Interaction and Architecture", ACM Interactions, co-editor of Architecture & Interaction – Human Computer Interaction in Space and Place (Springer, 2016) and author of The Materiality of Interaction - Notes on the materials of interaction design (MIT Press, 2018).*

Media, Materiality & Mediation – On digital transformation of public places

Mikael Wiberg, Umeå University

digital transformation, public space(s), digital materials, mediality, interaction

How is our everyday transformed through the use of digital technologies? What is the role of media in the formation and re-materialization of public spaces? And how can we describe the link between 'the digital' as something seemingly immaterial, and 'practice' as something seemingly 'real' and material?

In this keynote Prof. Mikael Wiberg will address the rapid transformation of public places, and the role of digital materials in relation to this ongoing digital transformation. With a point of departure in his newly released book "The Materiality of Interaction" (MIT Press, 2018) he will talk about how computing has now reached a state where traditional distinctions between 'the real' vs. 'the virtual', 'the physical' vs. 'the digital' and 'the material' vs. 'the immaterial' are now increasingly challenges, redefined, or no longer useful conceptualizations for understanding the relation between digital technologies and the transformation of everyday practices, places and how we as persons interact with each other, and with 'computers'.

In moving forward he will argue that we have already left a representation-driven computing paradigm behind, and that we now need to consider 'the materiality of interaction' as to design in and for a post-representational age. In his talk he will describe the implications of this shift and he will give examples of what this shift means - in relation to 'the public' and in relation to our everyday lives.

*Dr. Tim Lehmann is the founder of ium - **Institute for Urban Mobility**. His focus is on an adaptable infrastructure that combines intermodality and the perfect connection of different modes of transport with an attractive public space. In 2016 he founded the ium Institute for Urban Mobility.*

Autonomous shared electric cars for a liveable public space

Tim Lehmann, IUM - Institute for Ubran Mobility

autonomous vehicles, mobility, public space, sharing economy, smart city

More and more cars in our cities continue to take away people´s space and lead to less mobility. What could the future look like? Will we get even more cars in cities as car sales are growing or do new technologies allow to completely rethink the car system? Tim Lehmann will present a positive vision of the urban future on how real auto-mobility and liveable cities could come together.

*Timo Daum is a **university lecturer in the fields of IT,** online and digital economy. He publishes on topics of the digital economy, gives lectures and organizes conferences and workshops around questions of digital capitalism. His most recent book "Das Kapital sind wir - Zur Kritik der digitalen Ökonomie" just won the prize „Das politische Buch 2018" of the Friedrich-Ebert-Stiftung. Photo by Fabian Grimm.*

Smart Cities - the triumph of capitalist platform logic?

Timo Daum

big data, data harvesting, digital economy, platform capitalism, smart city

Would you like to live in a city that is organized in resemblance of a social media platform? Where you are free to move around, although every step of yours is being monitored, every move you make is being fed into an optimization feedback loop on the one side and a money making data harvesting machine on the other? Well that's more or less platform capitalism's blueprint for the city of the future, and they call it the smart city.

Empowering citizens to turn them into co-creators of demand-driven public services

Diego López-de-Ipiña, DeustoTech

case study, co-creation, open government, tools, participatory city

There is a need to pass from administration-driven to citizen-driven public services if the current take-up of public services wants to be enhanced. Public Administrations (PAs) should increasable turn into promoters and orchestrators of citizen-mediated innovation rather than as the sole providers of such public services. The empowerment of citizens with CO-CREATION tools is an approach to achieve more citizen-led innovation of public services. This is the formula to achieve bigger take-up and acceptance of public services since, thus, they address the true needs of citizens. Participation and collaboration are key pillars of the Open Government vision promoted by the European Commission, which CO-CREATION addresses. WeLive is an H2020 project which has tackled the challenge of streamlining CO-CREATION by proposing a range of tools for the CO-DESIGN and CO-EXPLOITATION of public services. It has piloted its methodology and supporting infrastructure in 4 European cities, giving place to a wide range of useful and reusable public service artefacts. Besides, the analysis of the piloting has given place to a good range guidelines and lessons learned about how to make the CO-CREATION paradigm sustainable and thus a reality among governments and citizens in the near future.

Dr. Diego López-de-Ipiña is an Associate Professor/Reader at the ***University of Deusto****, where he is the Principal Researcher at MORElab "Envisioning Future Internet" Research Group, DeustoTech Societal Challenges Research Unit. He holds a BSc in Computing from the Faculty of Engineering of the University of Deusto, an MSc in Distributed Information Management Systems from University of Essex and a PhD in Engineering from University of Cambridge. He obtained his PhD in 2002 with a dissertation entitled "Visual Sensing and Middleware Support for Sentient Computing". He has taken part in several big consortium-based research European projects, mostly as principal researcher involving the adoption of mobile computing, semantic web, social data mining, linked open data, social robotics, smart cities, open government and Web 2.0 and beyond to novel AmI-related application areas such as urban computing, sustainable computing or AAL. He is the project coordinator for the EDI – European Data Incubator (http://edincubator.eu) H2020 project.*

The urban metainterface and its messy openness

Christian Ulrik Andersen, Aarhus University

monitoring, participatory city, platform capitalism, sharing economy, urban interface

The implementation of urban media technologies often follows hopes of revitalizing an urban public sphere. However, evident with today's widespread use of urban interfaces, location tracking, sensors and more, this return to an open and participatory city appears in several ways to be 'messy': our desires to reinvigorate the shared urban public have been followed by a sharing economy and platform capitalism. As exemplified in the critique of e.g. Airbnb and Über, the openness often builds on platformed infrastructures, monitoring of users, and simultaneously impose elements of territoriality, cruelty and cynicism.

In this talk I will address the notion of 'openness' in relation to contemporary urban metainterfaces. The talk will relate the concept to theories of urban development, but will further argue that its complexity and present role in the urban can be understood in relation to its role in the history of (open source) software and interfaces. The talk will draw on ideas from the book "The Metainterface – The Art of Platforms, Cities and Clouds" (Andersen & Pold, MIT Press 2018).

Christian Ulrik Andersen, PhD, is Associate Professor at ***Aarhus University****, Dept. of Digital Design & Information Studies. His research addresses 'interface criticism' and the intersection between software and cultural performativity (including games, software art, netart, and more). He is director of Digital Aesthetics Research Center, a long-term collaborator with transmediale festival (Berlin), and editor of the journal APRJA on the ever-shifting frameworks of digital culture (www.aprja.net). "The Metainterface: The Art of Platforms, Cities, and Clouds is a joint work with Søren Bro Pold. Søren Bro Pold, Phd, is Associate Professor at Aarhus University, Director of the research program Humans and Information Technology, Dept. of Digital Design & Information Studies. His research addresses interface criticism as a perspective that discusses the role and the development of the interface for art, aesthetics, culture and IT; and he has published widely on digital and media aesthetics – from the 19th-century panorama to electronic literature, net art, software art, creative software.*

Flussbad Berlin

Apart from being a large scale, bottom-up urban development project in Berlins city centre Flussbad Berlin is an enabler for the general public by creating access to the river and permanently cleaning its water and – along the way - gathering a vast amount of water quality data, process it and publish it through its website.

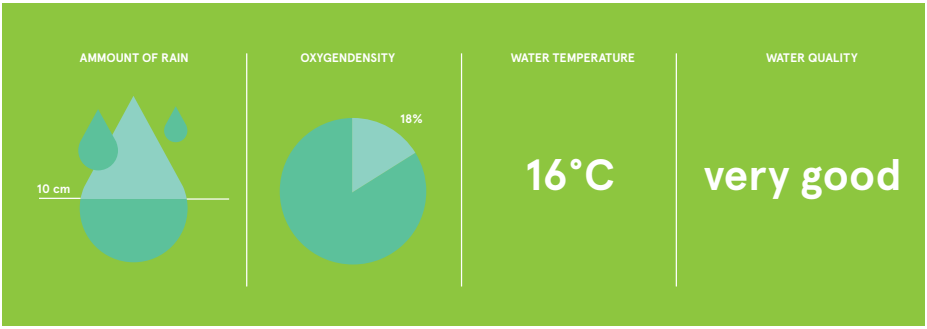
Berlin's city river Spree has been a cesspool, a transport route, a defence line and an irrigation system throughout the centuries. Today it has lost almost all those functions but has yet to gaine any contemporary one. The river is administrated as a water-highway by the federal waterway authorities – a public body – so by definition it can be considered a public space, but still without the capability of accessing it.

As an non-profit NGO we feel committed to create public access to environmental information usually not findable and/or understandable by the general public. River-water quality is not considered necessary to be published by the local authorities, although by law they are obliged to do so with environmental data on a regular basis. A juridical gap between several laws create a loophole which hasn't been made aware by the public. Swimming in inner city rivers is meant to be harmful or even dangerous in our latitudes. The permanent stream of water makes it hard to produce reliable results for bathing water quality, since the legally prescribed methods of examinations run through laboratory tests, which usually take two to three days. In the meantime lots of untested water will run downstream.

The association Flussbad Berlin will use data collected by a prototype system installed in the river to fill the gap the without being liable – which is a thin red line. In Germany state administration have the sole authority on deciding if a water body is suitable for swimming or not. This is good. They do so by defining technical requirements, zoning restrictions, avoidance of conflict with water transportation and thresholds for water quality for any public swimming area. But lack of funding for more and thorough tests and lack of public interest keeps them from acting further than necessary. Flussbad Berlin as a grass-root association will us its data to show, if the current water quality might be suitable for swimming, if someone would enter the river. It will visualize the results, so that everybody is capable of understanding them. And preliminary results show: people are shocked by the overall good quality of its river, although its visual appearance might appeal otherwise. We hope to create awareness that the river still is a functioning natural resource but also still an unused public space that needs to be transformed for contemporary use.

read more

Visualization of swimmable area in Flussbad Berlin along Museum Island
cc Flussbad Berlin / realities:united 2017



Mock-up of real-time water quality data visualization
cc Flussbad Berlin e.V. / bæuckersanders 2017

Zentrum fur Kunst und Urbanistik (ZK/U)

View of facilities and public space

The ZK/U concept and practice were initiated by the artist collective and non-profit organization KUNSTrePUBLIK e.V.. The association managed to become the owner of the former railway depot and holds a 40 year lease on the ground. KUNSTrePUBLIK's concepts and projects are equally focused on local involvement and global exchange.

Coming from non-institutional backgrounds, the founders aspire to continue exploring ways of collaborating, researching and creating, that go beyond the lines of existing structures and preconceptions. As part of their artistic practice, KUNSTrePUBLIK considers the development of ZK/U a long-term process that will evolve through the contributions and critical feedback expressed by its participants, partners and a diverse audience.

KUNSTrePUBLIK is a registered German non-profit organization „for the common good". While not in receipt of fixed institutional funding, KUNSTrePUBLIK has been funded on a project basis by the European Cultural Fund, the Hauptstadtkulturfonds (Capital City Cultural Fund), the Kunstfonds Foundation, and Bipolar, an initiative of the German Federal Cultural Foundation.

DAY 1

Wednesday, 11 April 2018

Arrival and Welcome

09:30 Arrival & Registration

10:00 Welcome note
Carlos Smaniotto, ULHT & CeiED
Kai Dolata (Flussbad Berlin) & Jan Bovelet (StadtInnenArchitektur), local organizers

Keynote Sessions

10:45 The death and life of a smart city
Benjamin Seibel, Technologiestiftung Berlin

11:15 Media, materiality & mediation - On digital transformation of public places
Mikael Wiberg, Umeå University

11:45 Discussion, moderation: Kåre Synnes

12:15 Lunch break at ZK/U

13:30 Autonomous shared electric cars for a liveable public space
Tim Lehmann, Institute for urban mobility, Berlin

14:00 Smart Cities - the triumph of capitalist platform logic?
Timo Daum, Berlin

14:30 Discussion, moderation: Ina Šuklje Erjavec

15:00 Short break

CyberParks: lessons learnt

15:30 Introduction
Carlos Smaniotto, ULHT & CeiED

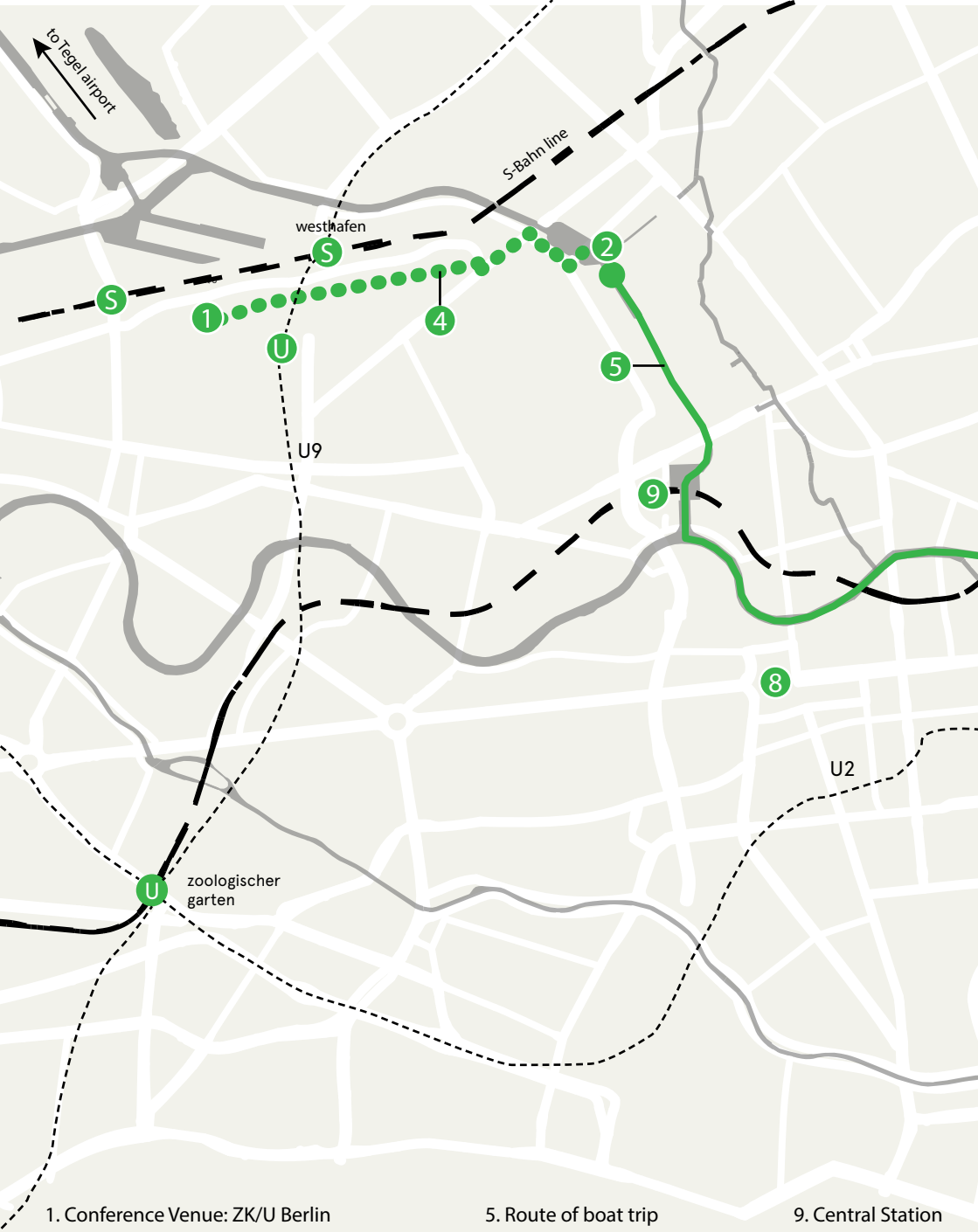
CyberParks working groups reports, moderation: Kai Dolata
Ernesto Marcheggiani, Petja Radovanova, Michiel De Lange, Antoine Zammit, Ognen Marina

Fieldtrip: Inner City Spree River

17:15 Walk from ZK/U to ship boarding site (2km)

18:00 Field trip by boat on the Spree River

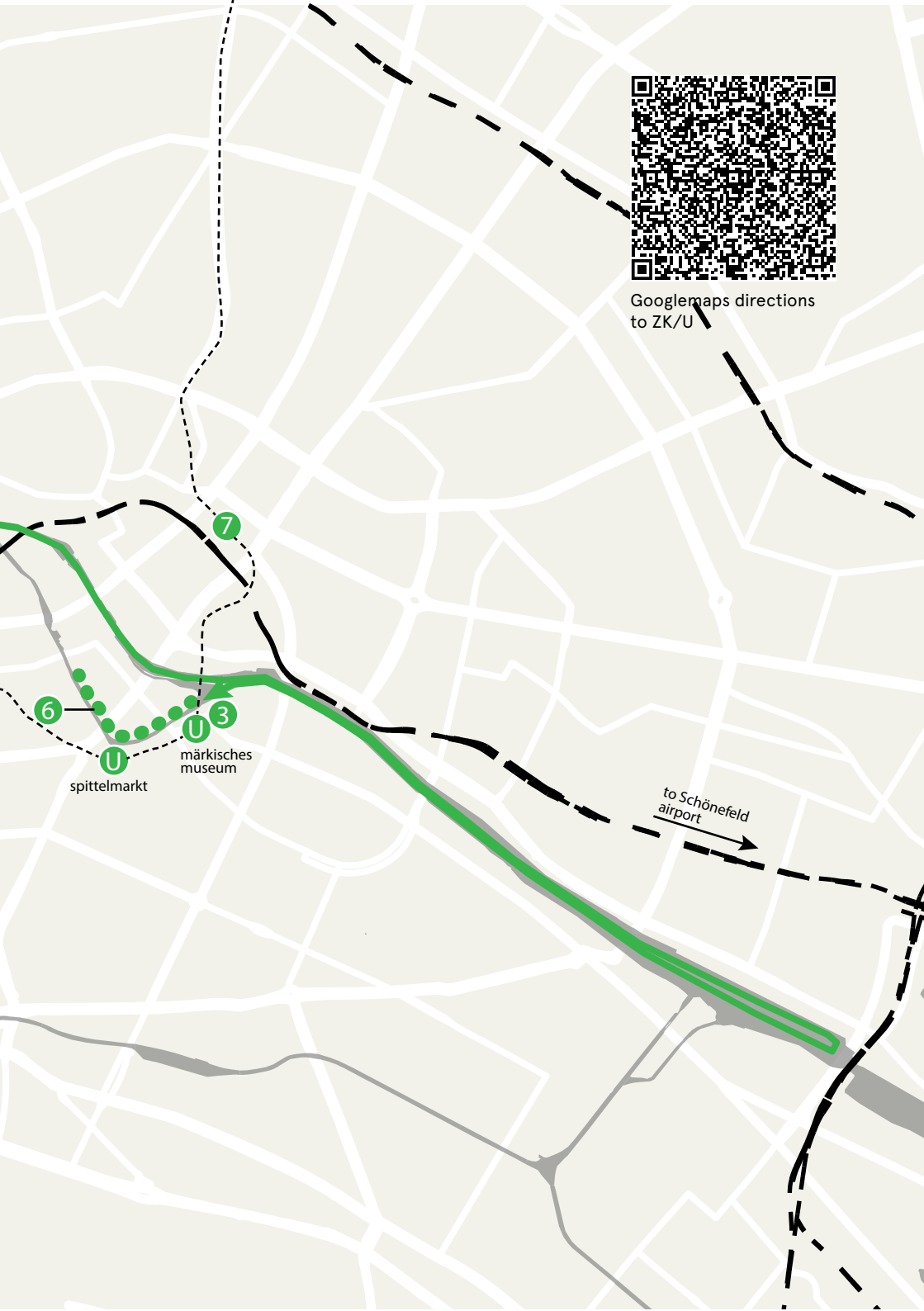
20:00 Dinner



1. Conference Venue: ZK/U Berlin
2. Starting point of Boat trip (day 1)
3. Starting point of field trip (day 2)
4. Walk to meeting point no. 2 (day 1) ~2km
5. Route of boat trip
6. Field study route (day 2)
7. Alexanderplatz
8. Brandenburg gate
9. Central Station

S. S-Bahn station

U. U-Bahn station


Googlemaps directions
to ZK/U
7
6
3
U
U
märkisches
museum
spittelmarkt
to Schönefeld
airport

DAY 2

Thursday, 12 April 2018

Case Study: Flussbad Berlin

09:30 Site visit guided tour with presentation on citizen empowerment through data visualisation (in parallel groups up to 30 participants)
Kai Dolata (Flussbad Berlin)

Hacking Urban Furniture

11:45 From Public Private Partnership to Collective Communal Cooperation
ZK/U Berlin

12:15 Lunch break at ZK/U

Pecha Kucha Session

13:30 Design projects at the intersection of digital media & public spaces

14:15 Discussion. Moderation: Catarina Patricio

15:00 Short break

Keynote Session

15:30 WeLive: public administration's stakeholders empowerment and the prosumer approach
Diego Lopez-de-Ipina Gonzales-de-Artaza

16:00 The urban metainterface and its messy opneness
Christian Ulrich Andersen, Aarhus University

16:30 Discussion, Moderation: Martjin de Waal

Conclusion and Conference End

17:00 Roundup and closing remarks

Hacking Urban Furniture: From Public Private Partnership to Collective Communal Cooperation

ZK/U Berlin

participatory city, public space, tools

Bus stops, city toilets, benches, trash cans, infoboards – Urban furniture and outdoor advertising has determined metropolitan public space for over 30 years. The exhibition `Hacking Urban Furniture' examines previous interpretations of this relationship, offering new perspectives. The exhibition is part of the long term, eponymous researching project `Hacking Urban Furniture' (HUF) which explores the history, past and future, of urban furniture. HUF is a collaboration between artists, urban explorers, administrators, politicians, activists and researchers exploring the potential of spatial public service design in the city and will present their research in the form of art works, performances, workshops and talks.

Learning in CyberParks: Evidence from EEG experiment supported by TUD COST Action TU1306

Michal Klichowski, Adam Mickiewicz University in Poznan

public space, smart city, smart learning

Learning in CyberParks is an element of smart learning, i.e. the latest concept of ICT-supported learning; it can also become an element of smart education – a concept of education in the smart city. Learning in CyberParks is supposed to provide students with contact with nature and stimulate them to be physically active. It is thus a type of a dual-task. Studies in cognitive neuroscience suggest that this type of cognitive-motor interference can weaken students' cognitive capabilities. To check whether this problem occurs in CyberPark, an EEG experiment was carried out. Results show that during dual-tasks in CyberParks students are less focused, and the dynamics of attention ceases to reflect the dynamics of the cognitive task. Thus, the cognitive activity intended in CyberParks should be separated from physical activity. When designing CyberParks, one thus has to think not only about the technological infrastructure, but also about making spots for using ICT while sitting available.

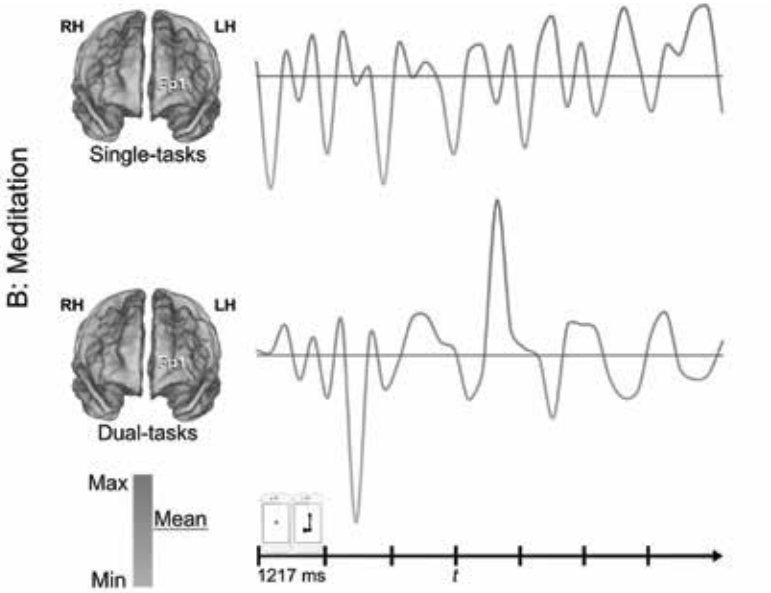


Figure 1. The dynamics of attention and meditation at Sternberg tasks (EEG experiment under natural conditions). (A) The dual-task cost was observed in the context of the attention level variability in time, in the sense that during dual tasks the dynamics of attention does not reflect the dynamics of the cognitive task. In single tasks, the attention increases regularly, every time there is a stimulus to remember. **(B)** The dual-task cost was also observed in the context of the meditation level variability in time. Starting a dual task causes a lot of stress which accompanies the whole task. During single tasks, the stress level is low and decreases as one gets used to the task. LH – left hemisphere, RH – right hemisphere.

CyberParks reflections: opportunities, limitations, lessons learnt

Roberto Pierdicca, Università Politecnica delle Marche

app-based systems, interface, tools

After four years of the CyberParks project, we can state that mobile devices represent (and will represent) the main interface through which users get in contact with their surroundings. During their "digital activity", the users release a set of digital footprints that, with proper architectures, can be caught and can be of use for the understanding of the (hidden) potential of a space. The drawback of this approach is that this twofold exchange of information from the space to the user (and vice versa) is app-based, meaning that the only way to make it real is having digital service on the hand of the visitors. The work presented describes the activities performed during an STSM in Lisbon. The work consists on the analysis of existing tools, on the development of a new set of guidelines for the development app-based systems and on a test of social media intelligence. These experiences pave the way toward a new vision of Sensible Spaces, which will be thoroughly explained.

The impact of autonomous vehicles on CyberParks

Jamal Raiyn, Al Qasemi Academic College

autonomous vehicles, mobility, public space

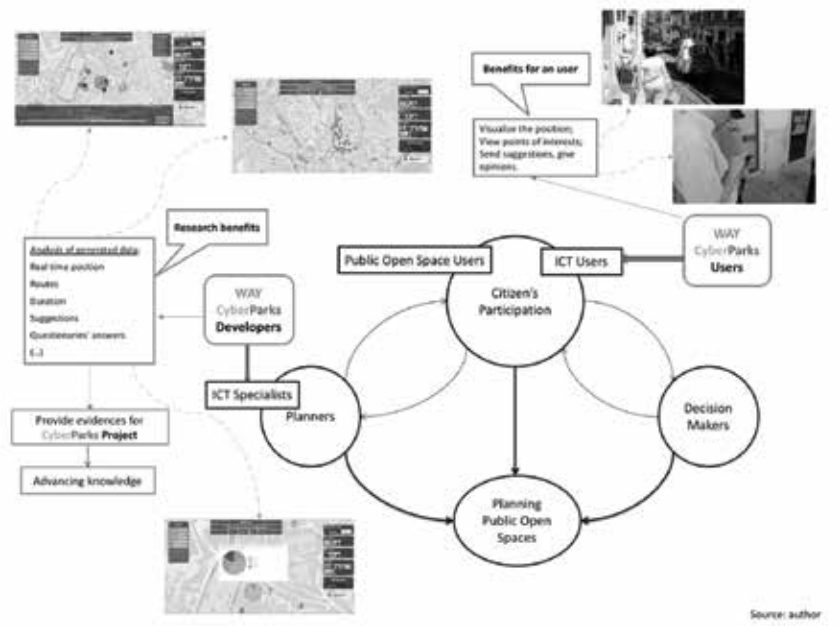
Information and communication technologies (ICTs) have had an impact on the evolution of modern cities, changing the traditional urban planning model. The penetration of ICTs into traditional public space is giving birth to a new type of public space: the cyber park. One such ICT is autonomous vehicles, which are designed to travel to destinations without human intervention, and which can serve people with disabilities, third-generation people, and children in cyber park settings. Autonomous vehicles are slowly being modified to possess cognitive capabilities, and the use of these vehicles can become much more viable than owning a car. The right-sized car can, in principle, be summoned at any time. As a result, autonomous vehicles may encourage people to better navigate the outdoor environment in safety and can make public open spaces attractive, easily accessible , and inclusive. If they are used effectively, some problems, such as, traffic congestion, traffic accidents can be solved.

A tool to support the planning of Public Open Spaces: The use of WAY CyberParks in Lisbon

Tiago Duarte, CeiED, Diogo Mateus, Lusófona University & CeiED,
Marluci Menezes, National Laboratory of Civil Engineering

data harvesting, public space, tools

The aim of the proposed presentation is to discuss how digital tools can help in the creation and improvement of open public spaces. The analysis will be centered in WAY CyberParks, a digital tool that was being developed and tested in CyberParks Project (COST TU1306). This tool allows you to monitor how different users relate to public spaces and consists of three main elements: a mobile application for the smartphone (app), a set of web services and the cloud to transfer the data between the first two elements. A brief description of the WAY CyberParks features and their potentialities will be made both from the user's and from the researcher's point of view. Will be analyzed the results obtained with the tests that were performed with the digital tool, in particular those obtained in Lisbon. Will be made an analysis of the strengths and weaknesses of this tool, and the advantages of using digital tools in the processes of planning and co-creation of open public spaces.



Smart Parks

Sari Suomalainen, Häme University of Applied Sciences

bottom-up, case study, public space management

The practical case example is Smart Parks –a case study that aims to develop and conceptualize engagement of individuals into public open space management. It is a 2- year project ending by 2018. The new DM (dynamic management) model introduces the aim of continuous dialogue in public open space management. Smart Parks explores how both objective and subjective user information can be exploited within public open space management and how ICT-technology can be used to implement this. In my presentation I will introduce the theoretical argument and examples of the results. The arts-based methods have been used to recognize perceived experiences of citizens. The Smart Parks-concept aims to enhance user experience and develop the bottom up approach. That is why also an evaluation about different digital applications have been made to show the differences. The Smart Parks will be implemented in the city of Lahti in May 2018.

Holistic approach to inclusive public spaces desing for ALL

Nataša Rebernik, University of Deusto

citizen-driven, public space, tools

There were 42 million disabled people aged 15–64 in the EU-27 in 2012. The urban population is increasing and has according to UN Population Fund already exceeded 50% of the global population. Cities are becoming more and more complex. City governments face challenges in designing fully inclusive city services, spaces and information, including also citizens with diverse impairments. Our research, A Social Cooperative Monitoring Tool for the Production of Inclusive Public Spaces, addresses these challenges through a multidisciplinary approach between computer engineering, anthropology, ethnography and urban studies. As such it addresses the societal challenges through a four-dimensional model on: a) individual, b) environmental, c) technology, and d) relational level. It aims at proposing a holistic and integrative approach to inclusive public spaces design that can help stakeholders enhance understanding of citizens' needs and consequently lead to more informative responsive measure.

Smart street furniture as an innovative approach to creation of inclusive public spaces

Kinga Kimic, Warsaw University of Life Sciences

interaction, public space, smart city

Street furniture represents different objects and pieces of equipment installed in all types of public spaces (streets, plazas, green squares, parks, etc.) for various purposes. Their main functions refer to utilitarian aspects, but may be easily developed by application of information and communication technologies (ICT) transforming them into smart street furniture – multifunctional and more attractive for users of different ages, professions, economic status, as well as excluded groups of elderly or disabled.

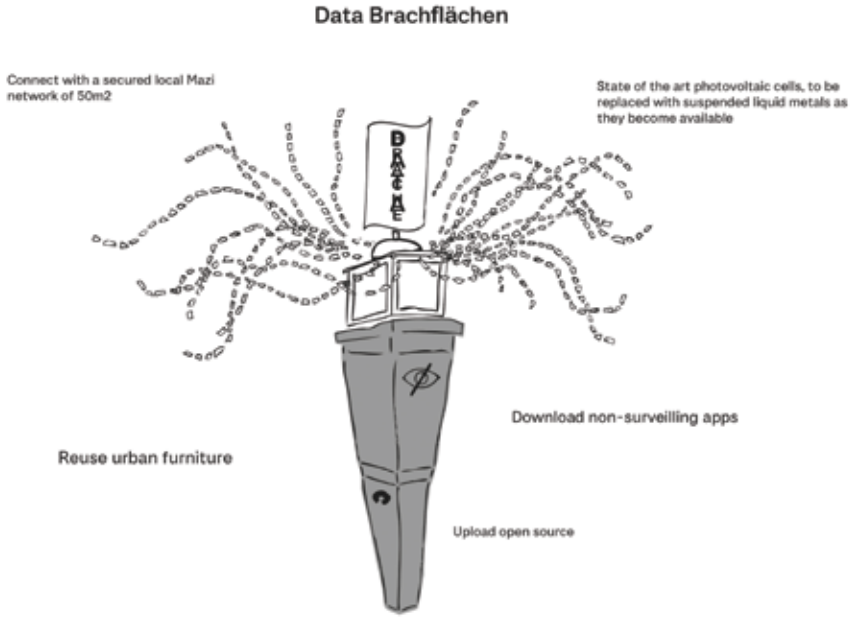
The main idea is to present selected examples of smart street furniture, based on a survey of global design projects. The main aim is to show the diversity of ICTs applications to many types of equipment which may affect the increase of users' outdoor activities including social integration, communication, learning, gaming, as well as an increase of public spaces' attractiveness based on enhancement of their safety and accessibility for different types of users.

Data Brachflächen (Wastelands)

Alex Head, Wasteland Twinning Network

data harvesting, interaction, public space

The attempt of this proposal is to reveal the extraction of data-value by monopoly markets before re-enthusing urban space with that agency. To correlate the urban wasteland with privacy, tracking and Net Neutrality, I observe that the digital commons is already highly enclosed. To turn this on its head: the direct product of a parasitic entity such as a Google 'Campus' is increased rents and the subsequent development of urban wastelands away from citizen/non-citizen power. Data Brachflächen will shape the interface of data and surveillance within our lives. Anti-tracking apps are downloaded over an encrypted channel while alternative open-source software can be uploaded and shared by citizens/non-citizens. The point is to celebrate new technologies while re-using the precious materials we already have, fostering the kind of critical and 'out of the box' thinking provoked by traditional urban wastelands and cerebral rural landscapes.



CyberParks network

31 countries

58 participating institutions

25 Short-term Scientific Missions (STSMs)

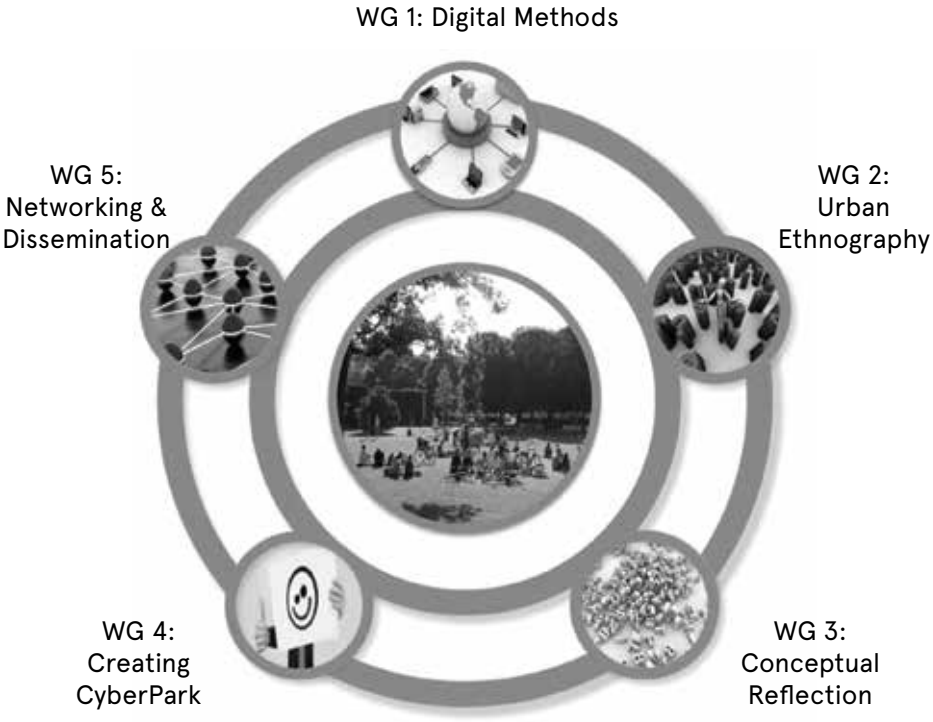
partners

STSM's


Riga
Vilnius
Luleå
Oslo
Poznań
Warsaw
Bratislava
Nitra
Graz
Budapest
Ljubljana
Zagreb
Belgrad
Sarajevo
Ancona
Nis
Sofia
Rome
Skopje
Thessaloniki
Volos
Athens
Reggio
Calabria
Valetta
Nicosia
Haifa
Tel Aviv

Working Groups

CyberParks is organised in 5 transdisciplinary working groups (WG), each one designed for gathering the best research and information available, collecting examples and experiences, sharing knowledge and experiences on different aspects of the interaction of ICT and public spaces, analysing those, drawing lessons learnt and preparing the outcomes.



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WG 1 - Digital Methods

Digital methods explores (recent and novel) ICT-tools to research the use of, and user-behaviour in public spaces.

WG leader: Fernando Alvarez / WG co-leader: Ernesto Marcheggiani

The mission of this working group was materialized into two main objectives that were defined during the first meetings of the Action (Brussels, Lisbon and Barcelona):

1. **Identify useful ICT-tools** and promote their use in different case studies conducted within the action.

2. **Define a classification structure** to specify the different uses of technology in public spaces according to the degree of users' engagement but also according to the device / media / app used.

With respect to the first objective, the first tool (the WAY App) was already presented in the second meeting (Lisbon) as a recent outcome from a Spanish National Research project. After analyzing its potentialities, it was adopted as the core ICT-tool of this action under the name of Way-Cyberparks. Since then, WG1 has fostered the development of this tool through several STSMs (Ljubljana, Bilbao, Ancona and Malta) focused on the design of new functionalities demanded by different case-studies. In addition to this tool, WG1 has also identified and encouraged the use of other tools such as Flowsampler, designed to analyze urban or interurban human flows from geolocated social media data, presented in Barcelona; the Cybercardeto App, which provides the users with contextual information as they walk through a public area, presented in Ancona; or the Getsensordata app, designed to collect all the information provided by the sensors of an Android phone to provide an accurate location of the user, also presented in Ancona.

Regarding the second objective of WG1 mission, a first draft of the classification structure was presented in Lisbon, also clearly stating the need for inputs from the other WGs. Gathering and channeling those inputs was the main aim of WG1 for the next two meetings (Barcelona and Bristol). In Poznan, the results of this process were presented in the form of a tree-structure that grouped the already identified ICT-technologies into three main categories. This structure was completely remodeled in the next three meetings: Poznan, where four main classification criteria were posed (stakeholders, information, technology and interaction); Malta, where the relationship between users and technologies was addressed, and Skopje, where a new set of criteria where used (spatial quality, user needs, attributes, provision/ICT implementation and added values) as a result of a close interaction between WG1 and WG4. In Ljubjana, WG1 decided that all developed frameworks were not excluding and thus they could be used in a complementary way.

WG 2 - Urban Ethnography

Urban ethnography brings together knowledge about the use of new media technologies in public spaces from an ethnographic point of view.

WG leader: Petja Radovanova / WG co-leader: Avgi Vassi

Working Group 2 starts developing its work in Lisbon and Barcelona in 2014 and 2015 with initial discussion and review of bibliography on the relevant –topics: ICT, public space, social interaction, digital ethnography, ethics and digital research. These initial findings assisted WG2 in thinking about the impacts of design, technology and other factors on peoples use and engagement with the urban spaces. WG2 initiated the discussion on collection of public open space captions that was the starting point for Photo shooting script and setting up Pool of Examples. A comparative research was conducted to enhance our knowledge on the relationship between people, ICT and public space, focusing both on individuals who are connected to ICT and public space, and those who don't.

In Barcelona, templates for research methods that can be used in case study cities, by STSMs researchers and by any interested member of the COST Action were suggested. In the next meetings, with other WGs we worked on developing a framework, for assessment and observation of diverse social groups and with presentation of research methodologies - participant observation, photography and visual methods, mapping spaces and introduction of apps.

Under the work of WG2 for methodological reflection, we proposed an innovative analytical framework for ethnographic research, introduced fully in publications and a separate book chapter under the Action. The framework will help researchers to capture, explore and understand the cyber-social phenomena and dynamics in a multifaceted, hybrid and cross-referenced way and enrich the ethnographic approach by providing a more integrated framework for the analysis of the relationship between people, space and technology.

As an interdisciplinary group – landscape architecture, urban geography, urban economy, ethnography, sociology, urban planning, IT, artificial intelligence, visual and media studies – and in collaboration with other WGs we focused our perspective to social point of view on CyberParks. Below our conclusions and general recommendations: cyberpark technologies can make public spaces more attractive, and function as a platform for citizens; cyberparks should be considered as a basic aspect of urban infrastructure and receive due attention in discussions about urban development; further development of cyberparks should start from the perspective of 'civic functions' of public space, in an inclusive way without fetishizing technology; proactive role of citizens and different target groups in the design of cyberparks; further development of vocabulary and policy/design frameworks that allow the inclusion of cyberpark technologies in urban design; planning instruments for inclusion of digital media installations; enhancement of research and design regarding public needs (people first); introduction of PPPs initiatives for an efficient management of cyberparks.

WG 3 - Conceptual Reflection

Conceptual reflection aims at bridging knowledge on new ways of urban life in relation to new media and theoretical approaches of public space design.

WG leader: Michiel De Lange / WG co-leader: Catarina Patricio

Working Group 3 'Conceptual Reflection' pursuits the clarification of central concepts in the emerging discourse around CyberParks. The group has identified connecting concepts in the multidisciplinary research group and put them in a common framework. This proposed framework involved the triad between space, technology, and society. It aimed to combine various disciplinary terminologies, methodologies, research cultures, and design/art practices. The intention was not to control the discourse through rigid definitions, but to foster discussion through the identification of both shared interests and meaningful differences that are naturally part of multidisciplinarity. From the three central concepts – space, technology, society – WG 3 attempted to build connections between researchers involved in the project, with several articles as a result. An issue was the programmatic project title 'CyberParks'. The suffix 'cyber' implies the realm of the digital, and media studies, while the prefix 'park' refers to physical (green) spaces and (urban) planning traditions, and green environments.

Another ambivalence involved description (what is) and prescription (what ought). We pragmatically considered Cyberparks as: 1. **An empirical phenomenon:** "technologically enhanced urban public spaces"; 2. **A sensitizing concept**: a heuristics that allows us to see new things, like the hybrid qualities of mediated urban public spaces; 3. **A pragmatic agenda connec1ng disciplines**: allowing for the development of shared vocabularies, practices, values.

More concrete topics that crystalized in the process include:

i. materiality of the virtual;
ii. cyberparks as places for smart learning;
iii. history/genealogy of public open spaces.

WG 4 - Creating CyberPark

Creating CyberPark deals with design research and the nurturing of innovative and creative open space design practices.

WG leader: Antoine Zammit / WG co-leader: Montserrat Pallares-Barbera

Working Group 4's objective was to understand the possibilities emerging by new technologies embedded in physical features for a CyberPark to have, to enhance the functionality of the public open space and add new dimensions to it. WG4 first questioned the manner with which ICT was challenging the design of (and traditional design approaches towards) public spaces, trying to identify the added value of new technologies in the creation of truly inclusive public spaces. It subsequently tried to translate this into implications for designers as they contribute to the production of better public open spaces, while considering the contribution of, and collaboration with, other disciplines. Initial debates involved defining the nature of public spaces and of a CyberPark, in the light of both evolving ICTs and the everchanging qualities of urban spaces. This led to a working definition for a CyberPark together with an initial framework to define good qualities of urban spaces. The ensuing discussions identified the need of a structure to classify these examples, enabling a better interfacing with other working groups, and possibly use it as a framework to monitor future trends after the Action. This outcome materialised into an Analytical Framework dealing with the implications for spatial quality, which was refined over the subsequent months during WG meetings with the input of other WGs.

Results: A) Understanding the implication of new technologies on spatial quality and providing examples of possible added values of digital layering onto space. B) Providing recommendations on how new technologies could help meet the (changing) needs and expectations of users and discussing new aspects of management and governance needed for CyberParks' implementation. C) Understanding how digitally enhanced public spaces can increase, safeguard or jeopardise resilience. D) Understanding educational opportunities (as strategic pedagogy) with digital layering in physical spaces, interacting with socio-ecological systems.

Final recommendations: A) Digitalization of public urban space through ICT is a means to provide further community engagement, empowerment through education, cultural inclusion and cohesion. B) ICT provides the tools to facilitate the development of public spaces as collective processes of co-creation and co-maintenance.

Future policies should address: (a) Use of technology to increase quality of life – understood tangibly in terms of long-term liveability, public health, safety, resilience, safeguarding and robustness. (b) Opportunities for participatory communication to empower communities in the long term.

WG 5 - Networking & Dissemination

Networking & dissemination is in charge of tailoring and transferring knowledge, organising workshops, young experts' platform and follow ups.

WG leader: Ognen Marina / WG co-leader: Jose Diogo Mateus

Digital tools that will enable better understanding of the complexity of spatial and social practices in the contemporary society that emerge as a new communication tactics of appropriation of inclusion and visibility have been in the focus of the Working Group 5. The objective of the work group has been to enable mutual interaction between the Action's members and to develop the processes that are shaping the research environment of the Action. This has been done through creation of several tools for communication and dissemination. The hybridization between the urban environment, people and green and public space has been foreseen as a great opportunity to reinforce the research and better understanding of the processes of urbanization. Combining the rich data with the spatial context provides a new insight and potential for innovation in our cities.

The WG5 activities have been focused on three main areas:

Data feed: collection of relevant information about researchers and projects in order to provide a broad data base for comprehensive state of the art of the topic of Cyberparks;

Dissemination: development of the website as the main tool for exchange of information and dissemination of the activities and results of the COST Action work. It has developed within the web site an Intranet entitled "Agora" that serves as a back-end approach to the website and to be used for networking, for project management, distribution of information, forum for debate about relevant questions to visualization of data. Editorial board has been established with the purpose to promote and mediate the content production within the Action.

Visualization of data in a data matrix to enable Action members to easily navigate through various types of information and data collected (pool of experts, pool of good practices, literature review and other) and to understand the relationships and emergence of complex interaction between different data sets.

The main contribution of the work of WG5 to the work of Cyberparks is the progress from technical support in the first half of development of the Action to creative think tank that created an innovative environment for knowledge creation. The think-tank has been in charge of tailoring and transferring knowledge, organizing workshops, formulation of research perspectives and follow ups. Continuity of knowledge collection, exchange and production of new forms of cooperation and research is also foreseen in the period afer the conclusion of the Action, establishing links and promoting collaboration among experts, practice and consultancy, dissemination and publication of results of the work of the Action, visibility of the COST Action results its members and their activities .and comprehensive outlook for follow-up activities.

START

April 2014
Brussels

June 2014
Lisbon

April 2016
Malta

October 2016
Skopje

October 2016
Amsterdam

February 2017
Lisbon

April 2017
Ancona

CyberPark meeting

CyberPark training school

November 2014
Barcelona

March 2015
Bristol

March 2016
Thessaloniki

February 2016
Poznan

October 2017
Ljubljana

November 2017
Nicosia

April 2017
Berlin

Imprint

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(non-profit NGO)
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p.12: www.technologiestiftung-berlin.de

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This publication is based upon work from COST Action TU1306, supported by COST (European Cooperation in Science and Technology). COST is a funding agency for research and innovation networks. Our Actions help connect research initiatives across Europe and enable scientists to grow their ideas by sharing them with their peers. This boosts their research, career and innovation. www.cost.eu