NEW MEDIA AND INFOGRAPHICS

by Shared Cities: Creative Momentum (SCCM) Curatorial Lab

Shared Cities Creative Momentum

#2

Belgrade

Berlin

Bratislava

Budapest

Katowice

Prague

Warsaw

TABLE OF CONTENTS

NEW MEDIA AND INFOGRAPHICS

1. INTRODUCTION	p.4
1.1 Workshop Concept	p.4
2. WORKSHOP	p.8
2.1 Workshop Day 1 Sessions	p.8
2.1.1 Lecture: Seven Things You Need to Know Before You Take on a Data Visualization Project	p.8
2.1.2 Case Study: Data Munging, Facebook Fanpages Analysis – Process Illustrated Step by Step	p .12
2.1.3 Lecture: Elements of Visual Grammar in Data Visualization	p.16
2.2 Workshop Day 2 Sessions	. p . 20
2.2.1 Lecture: Why Less is More	p.20
3. RESULTS	p.24
3.1 Workshop Summary	p.24
4. GUESTS AND PARTICIPANTS	p.26
5. ORGANIZER	p.28

Shared Cities: Creative Momentum (SCCM) Curatorial Lab

NEW MEDIA AND INFOGRAPHICS

Workshop #2
09-10 February
2017
Katowice Miasto
Ogrodow –
Instytucja Kultury
im. Krystyny
Bochenek, plac
Sejmu
Sląskiego 2,
40-032 Katowice,
Poland

Workshop organizers: reSITE, Miasto Ogrodow / Medialab **Katowice**; Workshop leaders: Helena Doudova (reSITE), Karol Piekarski (Miasto Ogrodow / Medialab Katowice); Publication editor: Osamu Okamura (reSITE); English proofreading: Elizabeth A. Haas; **Photos: Krzysztof** Szewczyk

sharedcities.eu #SharedCities #SCCM2020





1. Introduction

1.1 Workshop Concept Helena Doudova / reSITE, CZ and Karol Piekarski / Miasto Ogrodow, Medialab Katowice, PL

This workshop was the second in a series of three curatorial-practice-oriented workshops (publications, data, exhibitions), organized by the Curatorial Lab of the Shared Cities: Creative Momentum project, in order to explore innovative approaches to the sharing of knowledge in architecture, design and urban planning.

The Curatorial Lab Workshop on New Media and Infographics featured data visualization and data-driven analysis that represent architecture, urban spaces and culture in an innovative way. This two-day workshop took place in Katowice and was organized by reSITE in collaboration with Medialab Katowice.

Sharing through digital media was a vital focus of the workshop. An introduction to the work with data and data visualization was planned. The intro was organized by Medialab Katowice. Secondly, a key aspect of the workshop was the attempt to create an Atlas of Shared Cities. The invited data-visualization specialists NAND (Berlin, DE) analyzed specific datasets coming from statistical resources for seven partner cities under new aspects of sharing: such as shared mobility, shared spaces, shared governance, gender and participation-related analysis. The Atlas should be used in publications, exhibitions and presentations. The datasets are to be prepared in advance.

Workshop preparation instructions for participants before the workshop:

- 1. Download and install Open Refine http://openrefine.org/ and Sublime (or any other similar text editor) https://www.sublimetext.com/
- 2. Sign up to Google Sheets https://www.google.com/intl/en/sheets/about/
- 3. Sign up with plotly (https://plot.ly)
- 4. Bring a laptop with modern browser (Chrome preferred)

Eurostat city datasets to extract from:

We aim to compare our project cities in Central Europe in the form of a shared data Atlas to put Central Europe on the world map. Eurostat cities (Metropolitan regions) codes are: CZ001: Prague; DE001: Berlin; HU001: Budapest; PL001: Warsaw; PL010: Katowice; SK001: Bratislava; and Belgrade (is not included in Eurostat).

Overview tools:

We will use the ones in bold:

- http://app.rawgraphs.io
- https://plot.ly/ (set up an online account)
- http://openrefine.org/ (download and install)
- https://carto.com (set up an online account)

- https://www.tableau.com (download and install with license)
- https://www.datawrapper.de (set up an online account)
- http://www.qgis.org/en/site/index.html (download and install)

Suggested data to collect and compare:

http://ec.europa.eu/eurostat/web/cities/data/database

- Sharing space, resources, services
- Shared transportation, use of spaces by time
- Housing, cooperative living / lifestyle
- Living conditions cities and greater cities (urb_clivcon)
- Businesses in the sharing economy
- Digital technology
- Education cities and greater cities (urb_ceduc)
- Shared culture, language

https://ec.europa.eu/digital-single-market/en/digital-culture

http://www.europeana.eu/portal/en/explore/sources.html

- Age demographics (dependents vs. nondependents vs. seniors)
- Gender demographics
- Population on 1 January by age groups and sex cities and greater cities (urb_cpop1)
- Human capital
- Start-up culture/tech (IT) economy
- Mobile phone users
- Transport patterns (where/how people move in the city, and when)
- Shared bike usage (movement patterns, hotspots)
- Percentage of green space, percentage of public space

http://ec.europa.eu/regional_policy/index.cfm/en/policy/themes/urbandevelopment/audit/; http://data.europa.eu/euodp/en/data/dataset/S2070_419_ FNG

- Quality of life in 79 EU cities
- Cultural hubs (museums, galleries, etc.)
- CO₂ emissions

http://www.archdaily.com/803793/this-interactive-map-shows-the-worlds-recent-migration-patterns; http://ec.europa.eu/eurostat/statistical-atlas/gis/viewer/?mids=2,21,101&o=1,1,0.7¢er=50.72503,19.4355,4&ch=16,17&; http://

www.un.org/en/development/desa/population/migration/data/estimates2/estimates15.shtml

- Immigration
- Economic strength (GDP?), income inequality, pace of growth
- Cost of living issues (housing, food, transport)
- Sentiment analysis
- Nightlife

Geocoded data

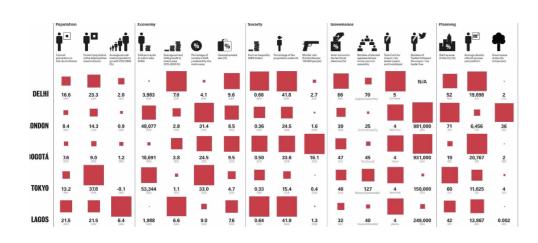
- OpenStreetMap Search, free-form queries (e.g. categories, culture etc.)
- street=<housenumber> <streetname>
- city=<city>
- county=<county>
- state=<state>
- country=<country>
- postalcode=<postalcode>
- Social hotspots (Foursquare API)

Data timeframe

Last 10 years max - USE ONE YEAR DATA ONLY TO COMPARE DIFFERENT CITIES.
 IT IS ALWAYS POSSIBLE TO SCALE UP LATER.

Comparable data is highest priority! Quality data is more important than the quantity!

Fig. 1
How Cities
Perform, LSE
Cities, Urban Age,
https://urbanage.
lsecities.net/
data/how-citiesperform-2014



6

Fig. 2
Eurostat
homepage,
Metropolitan
regions datasets,
http://ec.europa.
eu/eurostat/web/
metropolitanregions/data/
database



Fig. 3

OECD statistical
data homepage,
Metropolitan areas
datasets, http://
stats.oecd.org/



2. Workshop

2.1 Workshop Day 1 Sessions:
Dawid Gorny, Karol Piekarski, Paulina
Urbanska, Waldemar Węgrzyn / Miasto
Ogrodow, Medialab Katowice, PL

2.1.1 Lecture: Seven Things You Need to Know Before You Take on a Data Visualization Project

1. How data visualization found its way to the mainstream (data journalism, some examples);

2. What we can learn from dataviz history (a few examples: Isotype influence or our "Appetite for Radical Change" exhibition);

3. Why it is difficult to create a good visualization alone (working in a team, workflow);

4. Is data visualization a good way to present facts objectively? (data - fact - evidence);

5. Large data is messy (case study: katowicebudynki.eu);

6. Why we should not be afraid of data overload (the more data we have, the better / big data paradigm / open data);

7. Explanatory vs. exploratory, workflow, data analysis and visualization process (basic steps explained).

Things you need to know about data

¹PERSPIRATION ²MAINSTREAM ³HISTORY ⁴TEAMWORK ⁵MESSINESS ⁶OBJECTIVITY

⁷EXPLORATORY

Data is messy

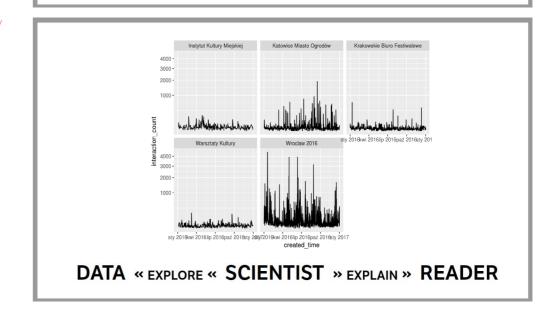
	Surveys	Interviews		Facebook application	
Where do event participants come from?	•	•		•	
What do event participants do while in the city?	•	•		•	
Who creates culture?		•			
What are the top events?			•		
How do Katowice residents shape the image of the city?			•		•
			News portals		Social media

Data is rhetorical

fact « done, occurred, exists evidence « see datum « given, something taken for granted

facts are ontological evidence is epistemological data is rhetorical

Data is exploratory





2.1.2 Case Study: Data Munging, Facebook Fanpages Analysis – Process Illustrated Step by Step

What does Facebook know about culture? What do you actually know about your fanpage's performance?

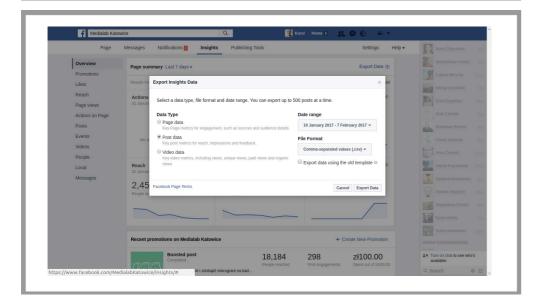
Exercise 1: Data Cleaning in OpenRefine Exercise 2: From Datasheet to Data Visualization.

Exploratory and explanatory data analysis with WTFCSV and RAWGraphs.

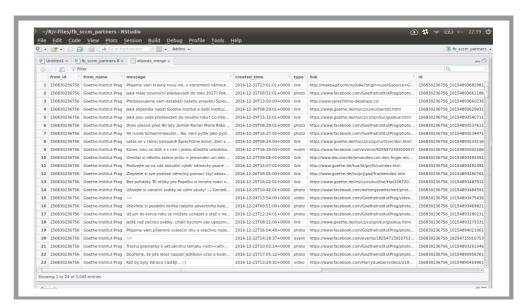
What can we learn from our data?

¹AVERAGE POST FREQUENCY ²MEDIAN OF LIKES ³TOP POSTS ⁴BEST PUBLISHING HOURS ⁵POPULAR CATEGORIES

Facebook data analytics export



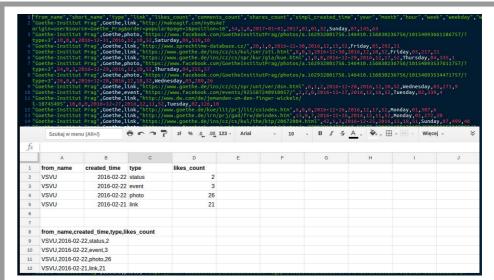
Raw data

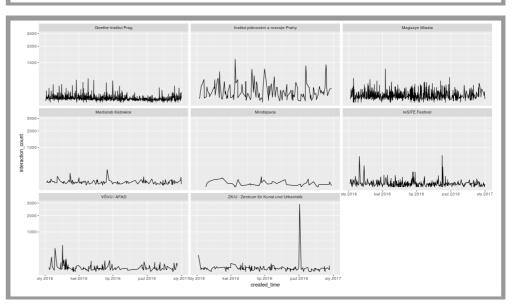


CSV file (comma separated values file); cleaning, tidying, wrangling, munging; OpenRefine: https://github.com/OpenRefine and https://github.com/OpenRefine/OpenRefine/OpenRefine/OpenRefine/Wiki/Documentation-For-

Comparative data visualization; Further possibilities to explore: Likes against character numbers, likes against shares, etc

Users#reference

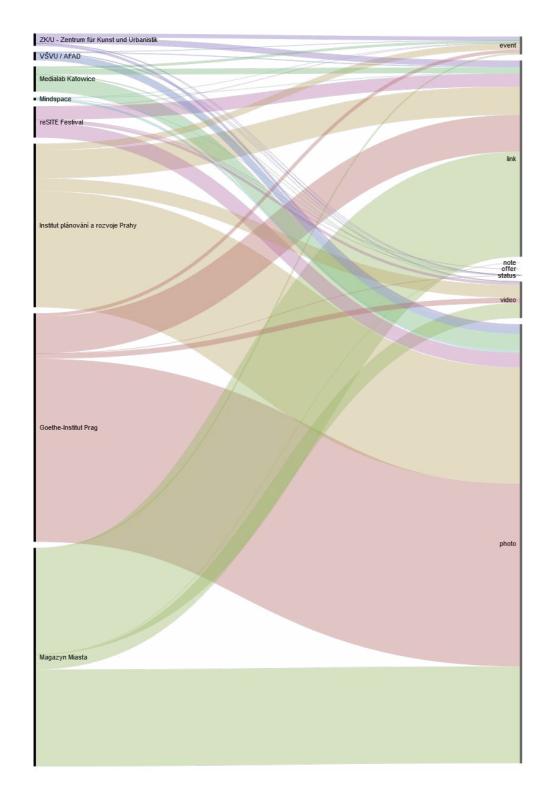




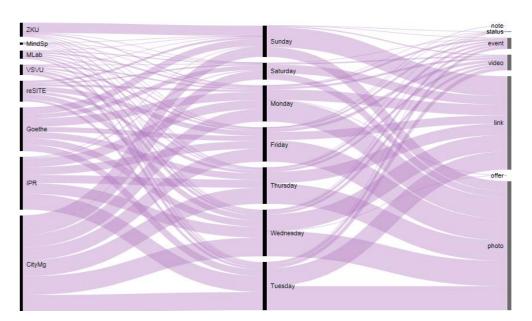
Exercise 1 and 2 Outcomes (Selection)

Exploratory and explanatory data analysis of SCCM institutions' Facebook posts with WTFCSV and RAWGraphs.

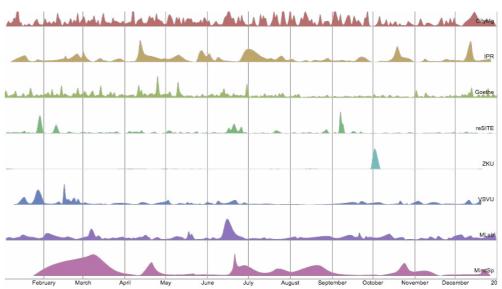
media



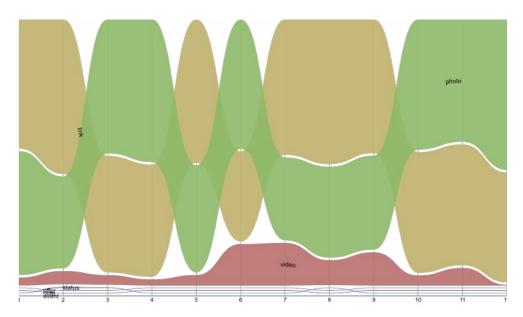




Institutions / Likes in time



Media per months



2.1.3 **Lecture: Elements of Visual Grammar in Data Visualization**

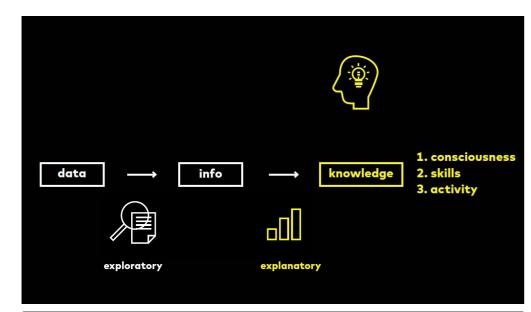
Roles of visualization: Exploratory tool, explanatory tool. Infology of knowledge in design process. What have we got from the data? What is the aim?

Exercise 3: Latch

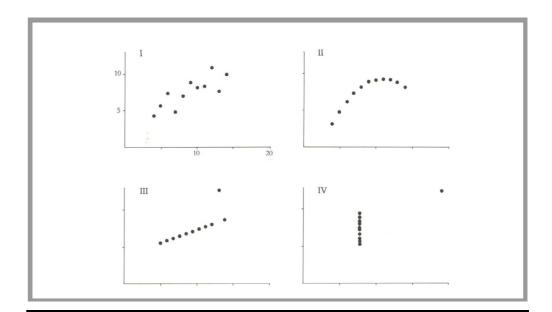
Exercise 4: Visual Grammar

Exercise 5: Types of Charts

"The critical point is in on the receiver side." prof. Krzysztof Lenk



	I	. 1	II]	II	1	V
X	Y	X	Y	X	Y	X	Y
10.0	8.04	10.0	9.14	10.0	7.46	8.0	6.58
8.0	6.95	8.0	8.14	8.0	6.77	8.0	5.76
13.0	7.58	13.0	8.74	13.0	12.74	8.0	7.71
9.0	8.81	9.0	8.77	9.0	7.11	8.0	8.84
11.0	8.33	11.0	9.26	11.0	7.81	8.0	8.47
14.0	9.96	14.0	8.10	14.0	8.84	8.0	7.04
6.0	7.24	6.0	6.13	6.0	6.08	8.0	5.25
4.0	4.26	4.0	3.10	4.0	5.39	19.0	12.50
12.0	10.84	12.0	9.13	12.0	8.15	8.0	5.56
7.0	4.82	7.0	7.26	7.0	6.42	8.0	7.91
5.0	5.68	5.0	4.74	5.0	5.73	8.0	6.89

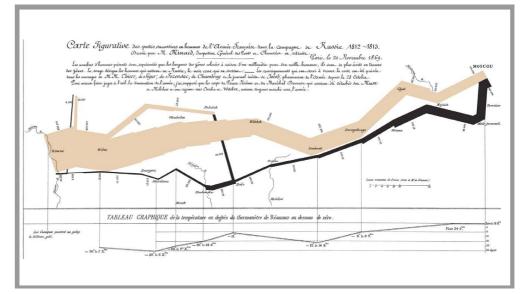


"The first step in transforming data into information is

structure." Nathan Shedroff

1. Location 2. Alaphabet 3. Time 4. Category 5. Hierarchy

Charles Joseph Minard, figurative map of the 1812 French invasion of







2.2 Workshop Day 2 Session:Steffen Fiedler, Stephan Thiel /Studio NAND, DE

2.2.1 Lecture: Why Less is More

At this public lecture Steffen Fiedler and Stephan Thiel gave an overview of their practice of building data-driven tools for researchers and why good design is key in making complexity accessible.

Their Studio NAND combines technology and research to design data visualizations, knowledge exploration tools and novel physical interfaces that interact with the digital world. They invent and develop interactions that visually destill relevant information from vast datasets and unravel complex processes into engaging interactive expositions and prototypes. Their clients include major cultural institutions, research departments and leading technology firms seeking to design and conceptualize possible scenarios derived from research technologies. The studio initiates the dialogue on potential use cases and models, and then critically examines the crucial, conceivable, and hypothetical events they may produce. NAND designs prototypes to explore actual, desirable or speculative scenarios, and then research and invent their interaction methods, to arrive at a full implementation of a final product.

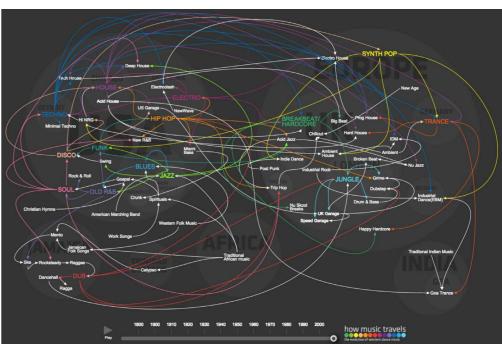
Exercise 1: Shared Cites Atlas: Data Exploration (RAW)

Future high water level to here?
Datavisualisation: http://www.
watermarksproject.

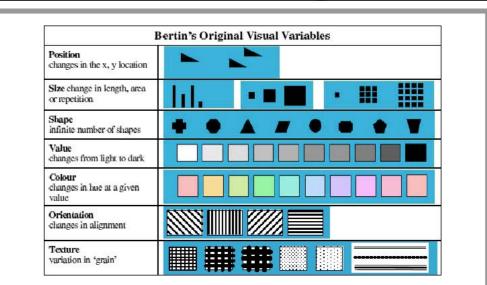


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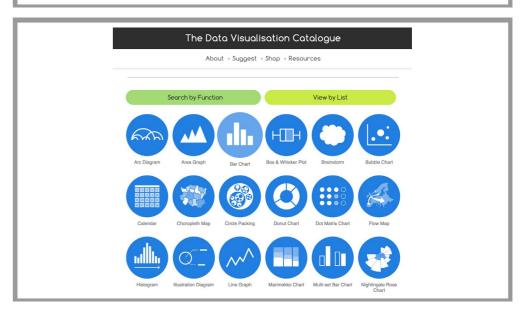
How music travels. Data visualization: http:// www.thomson. co.uk/blog/wpcontent/uploads/ infographic/ interactive-musicmap/index.html



Bertin's Original Visual Variables. Source: http:// www.infoviswiki.net/index. php?title=Visual_ Variables



The Data
Visualization
Catalogue. Source:
http://www.
datavizcatalogue.
com/



There is nothing worse than the visualization that tries to convey too much information at once.

Too much content creates information chaos and clutter that ultimately fails to communicate a coherent message.

3. Results

3.1 Workshop Summary

In this Curatorial Lab workshop participants were introduced to data visualization strategies and the possibilities of the use of infographic language. Moreover, with the guidance of international experts NAND, concrete datasets were proposed to feed into the idea of the Shared Cities Atlas as a final publication of the SCCM project. As these need to be worked on and developed further, the SWOT analysis became the first step to assess the strengths and weaknesses of the partner consortium capacity to participate on Atlas data collecting and processing.

Shares Cities Atla SWOT Analysis

SCCM Atlas	Internal Factors: Strengths	Internal Factors: Weakness
SWOT Analysis	SCCM Atlas team — multidisciplinary knowledge: data visualization and geography — active and communicative Project consortium SCCM — international network of partners exists — financed project: travels and regular meetings — local networks and knowledge — institutional resources	SCCM Atlas team too high expectations mismanagement miscommunication of goals and lack of skills to handle the research and data Project consortium SCCM time energy and capacities "extra work" lacking support of lead institutions and project partners
External	visibility and distribution by SCCM BECOME A TRENDSETTER, PROMOTE INNOVATIVE SCCM	- lack of finance SET UP A CAPABLE TEAM FOR THE ATLAS
Factors: Opportunities / Goals SCCM project goals Visibility of the region, "branding" the region Share information, new knowledge Cooperate: SCCM Partners Set benchmarks, develop better cities SCCM Atlas Visualize connections: shared history, shared urban spaces, flow of capital, migration patterns, Visualize uniquess of each city enable comparison regional – global	IDEAS within the region of CE and Europe CREATE A NEW SHARED CITIES IDENTITY (GLOBALLY REVEVANT) STRENGHTEN THE COOPERATION AND SKILLS OF SCCM PARTNERS	ESTIMATE THE TIME POSSIBILITIES OF SCCM PARTNERS REALISTICALLY ATTRACT EXTERNAL COLLABORATORS / VOLUNTEERS TO PARTICIPATE ON THE DATA-GATHERING FIND RELEVANT INSTITUTIONAL COLLABORATIONS (LIKE IPR DATA TEAM) AND EXTERNAL CITY FUNDING
External Factors: Threats Data inconsistent data uncompatible data missing data Belgrade not in Eurostat Artificial region — 7 cities voluntarily togehter metropolitan regions vs. cities lack of interest of others in the region Katowice not capital; Berlin a metropolis, not "central" Europe	PROFIT FROM PARTNER'S EXPERTISE ON DATA, GEOGRAPHY AND ARCHITECTURE UTILIZE LOCAL KNOWLEDGE, LANGUAGE SKILLS AND NETWORKS OF PARTNERS VISUALIZE REGIONAL, INTERCITY CONNECTIONS QUALITATIVE / PROPORTIONAL ANALYSIS INDEPENDENT OF CITY SIZE	TASK AND TIME MANAGEMENT SYSTEM SPECIAL TRAININGS AND ATLAS / DATA-RESEARCH ORIENTED MEETINGS ACCOMMODATE CAPACITIES AND RESOURCES WITHIN THE PROJECT CONSORTIUM TO MEET TIME-WORKLOAD NEEDS

Target groups for Shared Cities Atlas (aka SCCM Personas):

- Policy makers (aka Milos Stepanek)
- Local political activists (aka Zuzana Changemaker)
- Researchers / PhD students (aka Barbora Kleinova)
- Cultural institution staff / Curators (aka Juliane Hubitz Tlangaskova)
- Journalists
- Urban planners / Architects (aka Marketa Nova)

Task: Develop relevant datasets for the Personas

Shared Cities Atlas
Datasets

Transportation within SCCM		available modes of transport				
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	11 Yang	scope of infrastructure: km of tracks, streets, pedestrian walks				
		frequency of trains				
		shared public transport by day / month				
		cars per capita				
		commuting to/from work				
		cost of public transport				
		bike sharing				
	between SCCM	flight connections				
	ř i	trains				
		buses				
		highways				
Education		number of libraries				
		number of departments at universities				
		student population / total population				
		erasmus students / language schools				
		education structure: primary/secondary				
Cost of living		rent				
		shared apartments (? how measure?)				
		hamburger at Mc Donald's / consumer basket				
		salary (e.g. researcher, architect, public service)				
		social security / insurance				
	6	cultural events (cost of cinema / theatre ticket)				
Connectivity		Internet connections				
		cost of telephone				
		cost of mobile data				
		coworking spaces				
Accessibility	free cultural events					
	5	shared urban spaces				
Population		migration				
		growth/shrinking				
		gender				

4. Guests and Participants

4.1 Invited Guests



Steffen Fiedler / Studio NAND, DE

Stefen Fiedler is one of the co-founders and an Interaction Designer at Studio NAND – a multidisciplinary design practice that explores interactions between society, science and technology. Studio NAND uses design as a method to craft engaging experiences, stories and visualizations for private and public sector organizations. He has taught/lectured at University of Arts Berlin (UdK), University of Applied Arts Vienna, Copenhagen Institute of Interaction Design (CIID), Dresden Academy of Fine Arts (HfBK), University of Applied Sciences and Arts Northwestern Switzerland (FHNW), University of Applied Sciences Potsdam (FHP), Berlin Technical Arts School (BTK), Academy of Visual Arts Frankfurt am Main (AVA).



Stephan Thiel / Studio NAND, DE

Stephan Thiel is co-founder of the Berlin-based Studio NAND, where he realizes projects at the intersection of design and technology with a team passionate about communicating knowledge and making data accessible. The studio's clients include major cultural institutions, research departments, and leading technology firms seeking to design and conceptualize possible scenarios derived from research technologies. The studio's work ranges from data-driven installations and visualizations to speculative design concepts and has been exhibited worldwide. When he's not designing things, Stephan volunteers as a project lead for Start Coding e.V., a German non-proft supporting coding literacy, diversity in tech and education.

4.2 Workshop Leaders

Helena Doudova / reSITE, CZ Dawid Gorny, Karol Piekarski, Paulina Urbanska, Waldemar Węgrzyn / Miasto Ogrodow, Medialab Katowice, PL

4.3 Participants

Katarzyna Bialousz - Goethe-Institut Warsaw

Magdalena Chmiel - City of Gardens / Medialab Katowice

Helena Doudova - reSITE, Prague

Lena Enne - KUNSTrePUBLIK / Center for Art and Urbanistics, Berlin

Tomas Formanek (Guest participant) – Institute of Planning and Development,

Prague

Dawid Gorny - City of Gardens / Medialab Katowice

Stefanie Heublein – Goethe-Institut Prague

Paweł Jaworski – City of Gardens / Medialab Katowice

Miodrag Kuc - KUNSTrePUBLIK / Center for Art and Urbanistics, Berlin

Martyna Obarska - Res Publica / Cities Magazine, Warsaw

Osamu Okamura – reSITE, Prague

Radka Ondrackova - reSITE, Prague

Martina Peachment-Brehmer - Goethe-Institut Prague

Karol Piekarski - City of Gardens / Medialab Katowice

Milota Sidorova – Goethe-Institut Prague

Peter Stec - Academy of Fine Arts and Design (VSVU), Bratislava

Paulina Urbanska - City of Gardens / Medialab Katowice

Waldemar Węgrzyn – City of Gardens / Medialab Katowice

Marta Zakowska - Res Publica / Cities Magazine, Warsaw

Szilvia Zsargo - Mindspace, Budapest

5. Organizer

5.1 Curatorial Lab

Sharing information, know-how, governance and infrastructure has become a new imperative in architectural and cultural discourse. Europe is facing challenges that stem from the scarcity of resources, low levels of public participation and a shortfall of appropriate expertise. The shift in the technological advances of our time, boosted by the complex and interconnected condition of the globalized world redefines the way we inhabit our cities. Sharing makes innovative solutions possible by utilizing the creative potential of citizens, communities, activists, artists, cultural actors, social scientists and their networks, supported by the opportunities provided by ubiquitous mobile computing and social media. This approach activates a "Creative Momentum" that increases the quality of life in European cities.

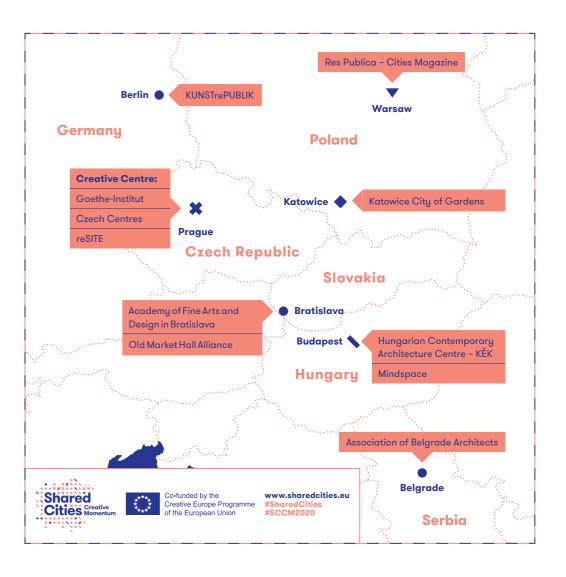
The Curatorial Lab is a transnational process-based collaborative platform exploring recent innovative curatorial approaches with artistic, visual and performative strategies. The lab is enhancing the visibility of the project outcomes and strengthening the mediation and the message of the Shared Cities theme. It is a communication channel for more intense curation, transnational exchange and dialogue with project partners. On a metalevel it coordinates program activities, carefully looking at the message, content and quality.

5.2 Shared Cities: Creative Momentum

Shared Cities: Creative Momentum is a seminal four-year cultural project that brings together eleven partners from seven major European cities: Belgrade, Berlin, Bratislava, Budapest, Katowice, Prague and Warsaw. SCCM establishes an international network for a creative discourse at the intersection of architecture, art, urbanism and the sharing economy to contribute to the transformation of urban spaces. From 2016 to 2020 more than 150 activities will take place, encompassing festivals, flms, exhibitions, artists' residencies and case studies. The project's ambition is to show urban citizens that their participation and cooperation is essential for creating a pleasant and valuable urban environment. The project's creative center is Prague where the Goethe-Institut, Czech Centres and the reSITE organization form its core team.

Shared Cities: Creative Momentum is a European cultural platform addressing the contemporary urban challenges of European cities. SCCM is a joint project of Goethe-Institut (DE), Czech Centres (CZ), reSITE (CZ), Academy of Fine Arts and Design in Bratislava (SK), Association of Belgrade Architects (RS), Hungarian Contemporary Architecture Centre – KÉK (HU), Katowice City of Gardens (PL), KUNSTrePUBLIK (DE), Mindspace (HU), Old Market Hall Alliance (SK), Res Publica – Cities Magazine (PL). Cofunded by the Creative Europe Programme of the European Union.

5.3 Partners Map



5.4 Logos



The European Commission support for the production of this publication does not constitute endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Belgrade * Berlin Bratislava Budapest Katowice * Prag Warsaw



Living in the city, we're used to sharing – green spaces, bus seats, even the air we breathe. We know that sharing a car or a flat can make it worthwhile. Instead of owning a bike we can rent one, too. Sharing has become a part of urban life.

Shared Cities: Creative Momentum is on a mission to improve the quality of life in European cities. By exploring aspects of sharing and urban design we are creating new ways of living in our cities. Together.

www.sharedcities.eu #SharedCities #SCCM2020



Shared Cities Creative Momentum (SCCM) is a European cultural platform addressing the contemporary urban challenges of European cities. SCCM is a joint project of Goethe-Institut (DE), Czech Centres (CZ), reSITE (CZ), Academy of Fine Arts and Design in Bratislava (SK), Association of Belgrade Architects (RS), Hungarian Contemporary Architecture Centre - KÉK (HU), Katowice City of Gardens (PL), KUNSTrePUBLIK (DE), Mindspace (HU), Old Market Hall Alliance (SK), Res Publica - Cities Magazine (PL). Co-funded by the Creative Europe Programme of the European Union.