



ELISE Knowledge Transfer: Location Interoperability for Digital Transformation, ABCIV-000152-6000184687-REQ-01

EC Joint Research Centre – Unit B6

Rapid Study: Geospatial technology and public participation

28/08/2019

ELISE

ISA² Action: ELISE

The EC Joint Research Centre is leading the **European Location Interoperability Solutions for E-government (ELISE)** Action. ELISE is a package of legal/policy, organisational, semantic and technical interoperability solutions to facilitate efficient and effective electronic cross-border or cross-sector interaction between European public administrations and between them and citizens and businesses, in the domain of location information and services.

ELISE Knowledge Transfer - Location Interoperability for Digital Transformation: To support knowledge transfer and capacity building in the context of location interoperability and digital transformation.

Rapid studies: brief but detailed analysis aimed at generating and sharing knowledge about location interoperability and digital government transformation from both research and practice.



Before we start

About me

Thérèse Steenberghen (KU Leuven – SADL)

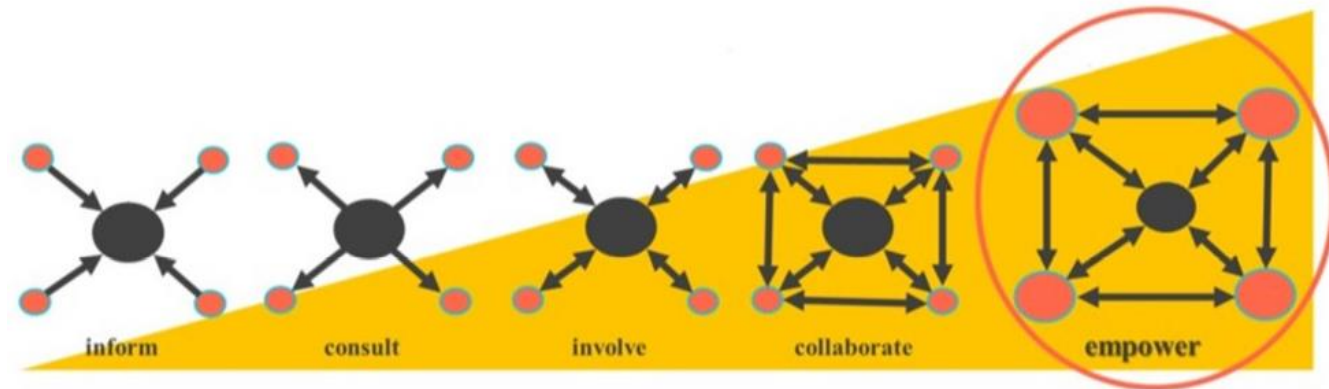
- **Education:** MSc in Geography (KU Leuven 1982) – MSc in Biogeography (Texas A&M University 1988) – PhD in Urban and Regional Sciences (Texas A&M University 1992) - Postgraduate degree in business management (Vlerick School Leuven-Ghent 2001)
- **Function:** Associate professor - Division Geography and Tourism, Managing Director - SADL
- **Research interests:** spatial analyses in spatial planning, mobility and tourism
- **Ongoing projects:** GARMON - The Garden monitor, Cartography of gardens by means of teledetection (Belspo, 2017-2019); Citizen Science project 'MijnTuinlab' - Crowd sourcing data on garden management and development of learning modules for high schools (EWI, 2019-2021), Framework Contract for the Validation of Innovative Geospatial Tools – New Developments on Imagery and Geospatial Data Processing (SATCEN, 2019); ESPON-MIGRARE Applied research project on the Impacts of Refugee Flows on Territorial Development in Europe (2018-2019); ERASMUS+ - EO4GEO - Towards an innovative strategy for skills development and capacity building in the space geo-information sector supporting Copernicus User Uptake (2019-2021)
- **Teaching:** KU Leuven Master in Tourism, Master in Urban Planning



Content of the presentation

geospatial domain - role of citizen

- Introduction to the topic
- Systematic review of the scientific literature
 - traditional conceptual frameworks for analyzing Geospatial enabled dynamics between governments and citizens
 - case studies and good practices around the turn of the century
- Lessons learned from evolution, case studies in
 - empowerment through participatory GIS
 - co-creation through Citizen-Science
- Synthesis of main messages
- Conclusions

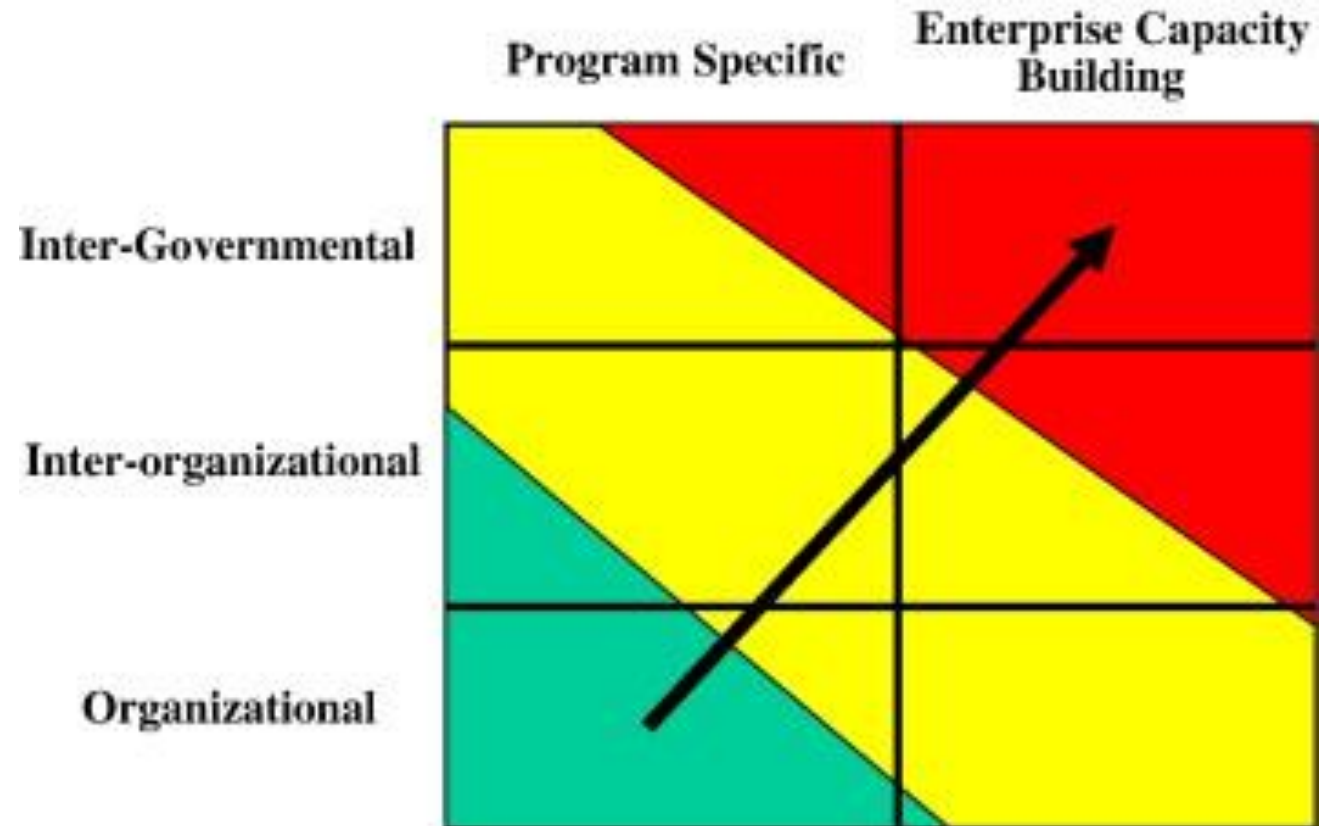


Introduction to the topic

Link with Webinar 'Role of geospatial in the digital transformation of government' 07/05/2019

Challenge 1 – (Inter-)Organisational

- Need to avoid technological determinism
- Increased complexity:
 - External actors and their concerns
 - Co-creation
 - Rethink and redesign
- **Who's in charge** of transforming government?
 - How to increase their awareness and understanding of geospatial?
 - New models of governance and collaboration

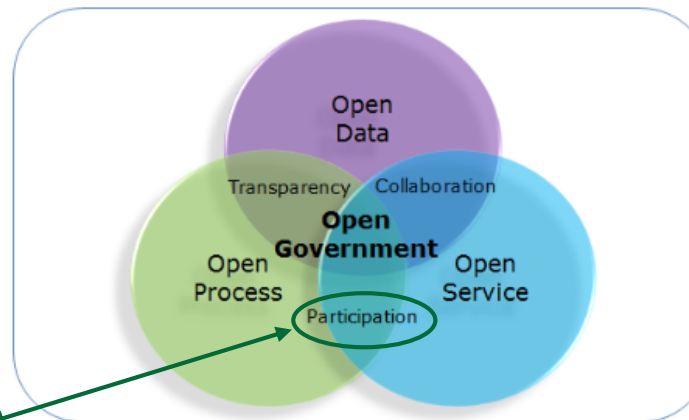


Pardo & Tayi (2007)

Open Government and ICT-enabled public sector modernisation

The two focal points of this community are Open Government and ICT-enabled public sector modernisation. This open government approach is seen as the best way for public administrations to face mounting challenges. Two examples are budgetary pressures following the financial crises and a growing lack of trust in public administration. Governments must also meet rapid technological innovations and shifts in demography and environment, all changing employment, mobility and security.

The experience of peers



The exchange of good practices is part of the toolbox

The Open Government Approach

The open approach to government will result in better decisions, and in restoring trust in public institutions

of open government. By absorbing the experience of their peers, public administrations become effective and efficient. By being interconnected and open, they will deliver well-organised, user-friendly services. It reduces costs and lessens the administrative burden. It propels them to opening up public data and services, working together with a wide community on public services. This is about making the government process open, getting citizens to join in and participate.

Better decisions, restoring trust

Making data available in an open way makes new services possible. Allowing anyone to add value to government data can stimulate and create new markets, businesses and jobs. The open government approach is expected to result in easy to use, personalised services. These are designed, created and delivered together with others, combining information, data and services both from the public as well as the private sector. The open approach to government will result in better decisions, and in restoring trust in public institutions.

 Search

ISA² - Interoperability solutions for public administrations, businesses and citizens

Reusable tools for EU public participation



2016.04 Participatory Knowledge for Supporting Decision Making

FUNDING CONCLUDED

When is this action of interest to you?

You are an EU institution or a Member State public administration that wants to gather measures and analyse large quantities of data including citizens' opinions, needs and preferences by allowing the electronic participation of stakeholders. You are a European citizen wanting to voice your opinion and influence the decisions of your government. This action will contribute to making governments more open and participatory throughout Europe, by addressing the challenges around opinion elicitation with a main focus on reuse of existing assets.

What is this action about?

Acquiring citizens' opinions is a challenging task for many public administrations, which often lack the means to analyse large quantities of semi-structured or unstructured information. European institutions and Member States' public administrations have launched several initiatives to collect citizens' opinions when consulting stakeholders but these activities were mostly fragmented and had limited cross-organisational or cross-border cooperation.

Through the implementation of practical activities, this action wants to collect, enhance, consolidate and integrate existing stakeholder consultation and publish it as a reusable solution package.

Firstly, the action will focus on the identification of the requirements stemming from the public administrations in the different Member States. Secondly, the action will assess existing assets, reusable software solutions, standards and vocabularies that can address the identified needs. Finally, the identified solutions will be consolidated and generalised in order to allow them to be used in different business contexts that aim to address a common challenge.

By providing a toolbox for the collection of opinions from various digital sources in a standardised manner, the action will enable public administrations to manage open knowledge in a coherent way and extract meaningful knowledge that can help stakeholders and policymakers reshape decisions.

PROJECT CORE DATA

Project start/finish: Q2/2016 to Q1/2017

Parties involved: European Commission (DG DIGIT, CNECT, SG), Latvian Ministry of Environmental Protection and Regional Development, European Parliament, Publications Office

ISA² contribution: EUR 440 000

WANT TO KNOW MORE?

Action description in the Work Programme

- [2017](#)
- [2016](#)

Action performance

- [Dashboard](#)

https://ec.europa.eu/isa2/actions/consolidating-and-integrating-reusable-tools-eu-public-participation_en

ISA² - Interoperability solutions for public administrations, businesses and citizens

OCS for ECIs



When is this solution for you?

You are the organiser of a [European Citizens' Initiative](#) (ECI) and wish to gather statements of support online.

What can we offer you?

We can provide you with a reusable tool that permits the online collection of statements of support in a way that complies with the [Regulation on the European Citizens' Initiative](#) (ECI) regarding the format and data collected, as well as with security and technical requirements.

The software makes it easier for organisers of ECIs to comply with legal requirements and to have their online collection systems certified by the relevant Member State authorities.

The OCS is an Open Source web application available for free download.

In 2017, a new version of the OCS was released with improved administration interface in desktop and mobile versions. The system also offers new social media features.

The latest release (OCS 3.0) from July 2019 improves accessibility, maintainability and evolution of the application.

Our solution at a glance



Get started [Download OCS](#)
[OCS demo site](#)

Systematic review of the scientific literature

Key issue: does the use of geospatial technologies lead to greater participation in the political process?

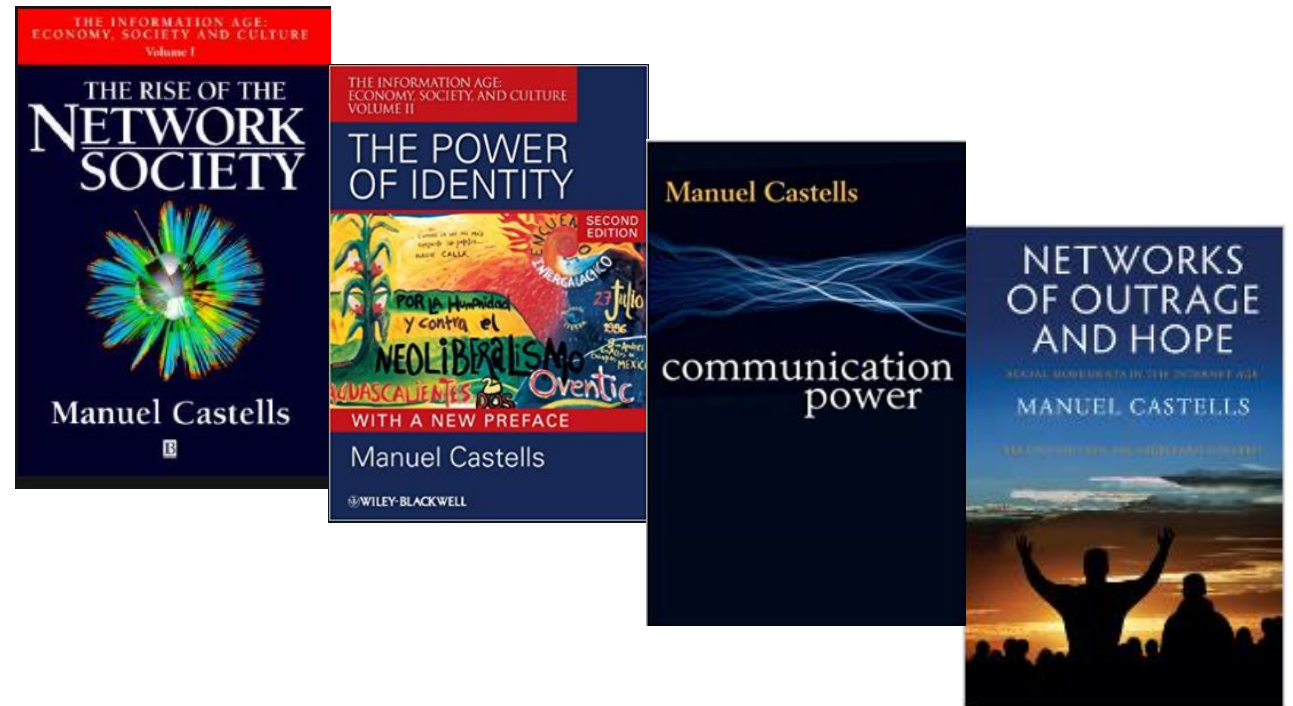
Main concern: empowerment

Castells

Power is not an attribute of individuals and groups but a relationship

Communication networks are central to the implementation of power-making of any network, such as corporate, financial, cultural-industrial, technology and political networks

The programming of single networks and switching of different networks are the fundamental sources of power. Network programmers (media companies, public institutions, publishers, editors, technicians) and switchers (linking media, cultural, political and financial networks) are the holders of power in the network society



Systematic review of the scientific literature

AGILE Conferences

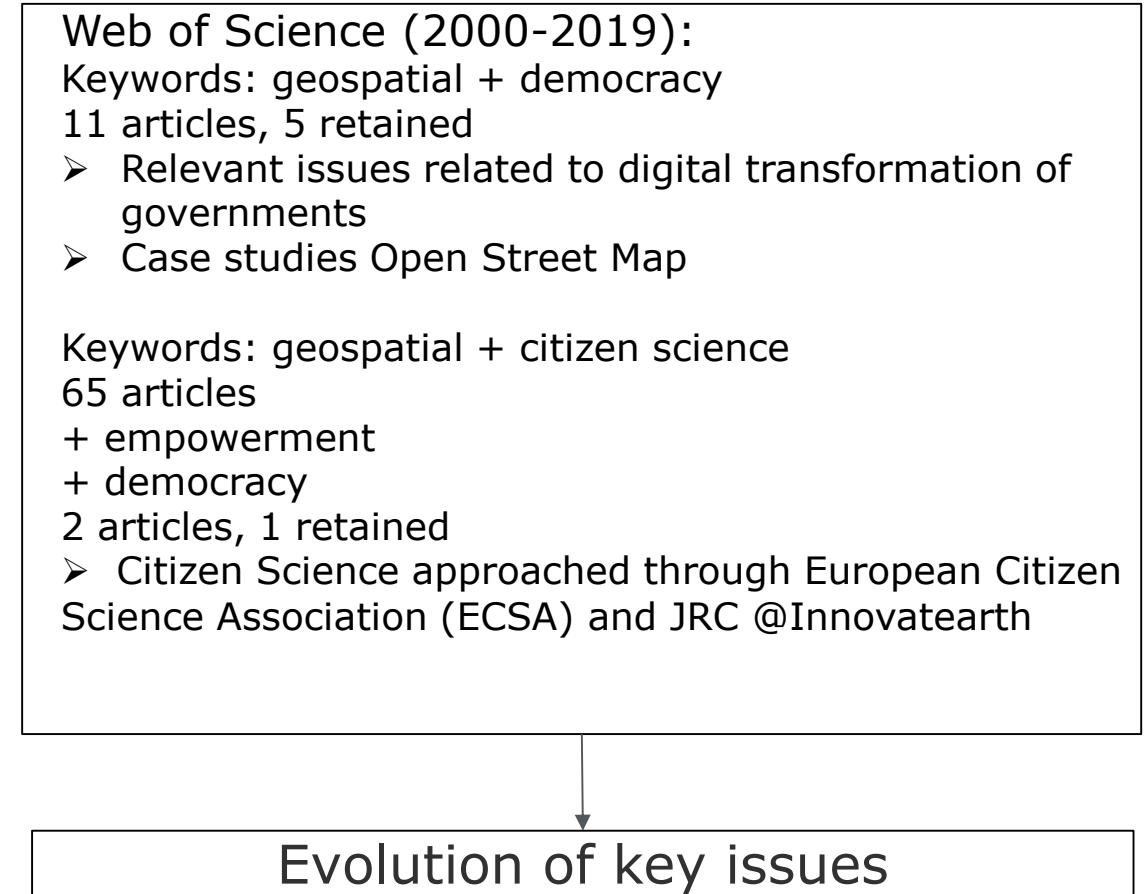
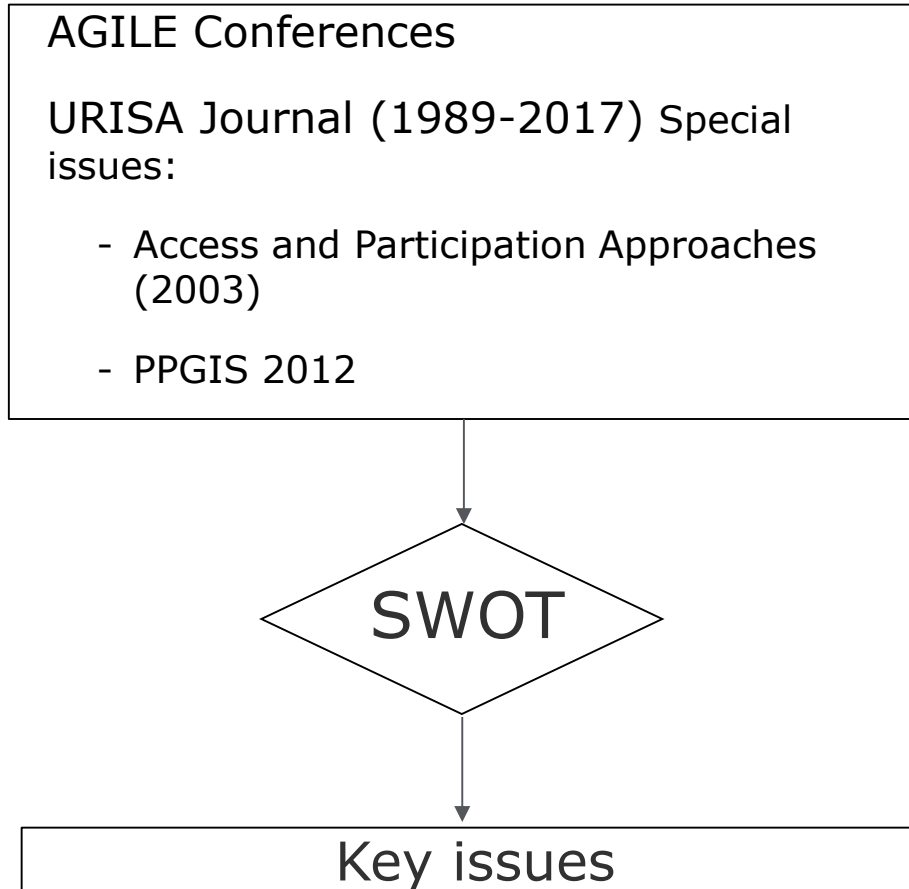
Public participation no longer the concern it was around the turn of the century?

Same basic concern, other components?

	a. Based on full conference programmes										b. Based on springer chapters								
Session themes	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Dynamic modelling spatial processes	X		X			X		X				X		X					
Data management	X							X											
Data infrastructures	X	X		X	X	X	X	X	X	X	X				X				
Interoperability	X		X	X	X	X		X	X	X									
Web based visualization		X																	
Data integration		X													X		X		
Environmental modelling		X		X	X		X	X		X									
Emerging technologies		X	X																
GIS and planning		X	X	X															
GT policies			X	X	X	X													
Mobile GIS and transportation			X	X				X	X	X				X	X		X	X	X
Data usability and quality			X	X	X	X	X	X		X					X				
GI databases			X						X										X
Spatial modelling and Analysis			X	X			X				X	X	X	X	X				X
Urban modelling					X	X	X			X					X				
Education					X	X	X	X	X	X									X
Public participation					X														
Location based services					X	X													
Economic issues				X	X		X												
Disaster management						X	X	X											
3D (modelling)						X		X	X	X									X
Ontology, semantics						X	X	X	X	X	X		X			X		X	X
Decision support systems						X	X	X	X		X		X		X	X			
Visualisation							X	X	X		X	X	X	X		X			X
Remote sensing							X	X	X		X				X				X
Session themes	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Web services								X						X	X	X			
Spatial data processing														X		X	X		
User generated data																X	X	X	X
Discovering knowledge																		X	

Systematic review of the scientific literature

Geospatial enabled dynamics between governments and citizens



Systematic review of the scientific literature

Journal
of the Urban and Regional Information Systems Association

Volume 15

Access and Participatory
Approaches II



Access and Participatory Approaches in
Using Geographic Information

Volume 11

w w w . u r i s a . o r g



~~To goods and services~~

as a basis of wealth and power in
society

address societal issues such as
equity, ownership, and control



Public Participation GIS (PPGIS)

+ : tools that empower communities

- : tools that invasively advantage some people and organizations while marginalizing others

PPGIS seek to develop approaches, mechanisms, technologies, and institutions that **aid self-determination** by various forms of self-defining communities with full awareness of the second view that **choices made may have negative as well as positive power ramifications**

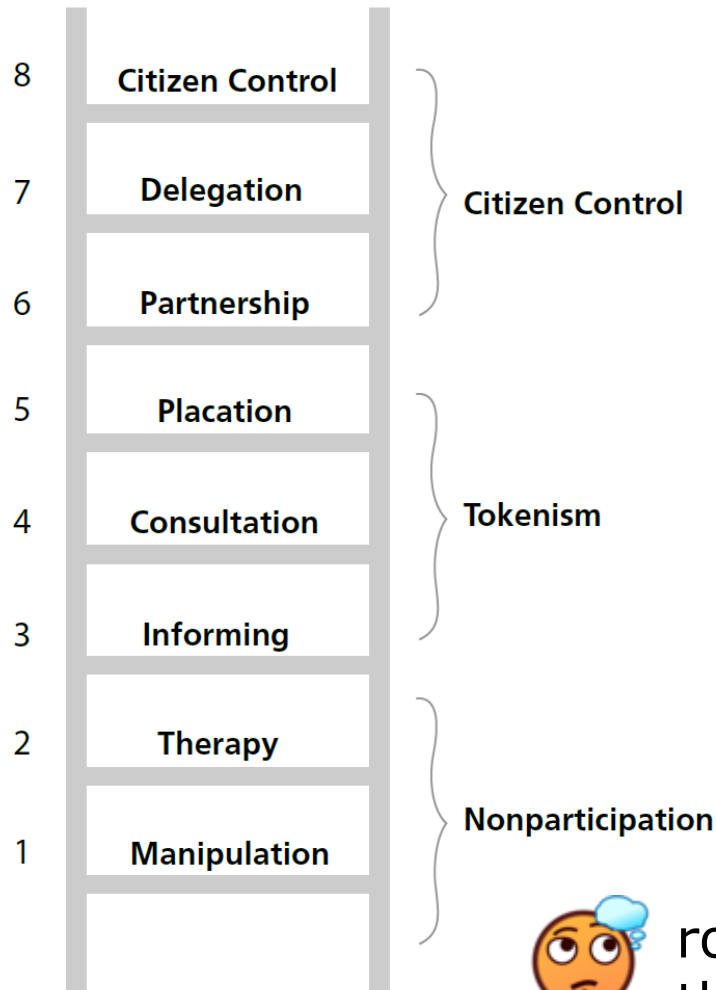
Characteristics :

- 1) role of participants in creation and evaluation of data;
- 2) representation of diverse views, preserving contradiction, inconsistencies, and disputes against premature resolution;
- 3) system outputs redefined to reflect the standards and goals of the participants;
- 4) capabilities for managing and integrating all data components and participant contributions from one interface;
- 5) preservation and representation of the history of its own development (handling time components);
- 6) embedment of the condition that "Public Participation GIS" is not primarily enabling technology focused but is primarily an ongoing "process" of self-determination by self-defining communities

Traditional conceptual frameworks for analyzing Geospatial enabled dynamics between governments and citizens

Conceptual frameworks for analyzing Geospatial enabled dynamics between governments and citizens

The public participation ladder (Arnstein, 1969)



role of geospatial technology in empowerment through participation?

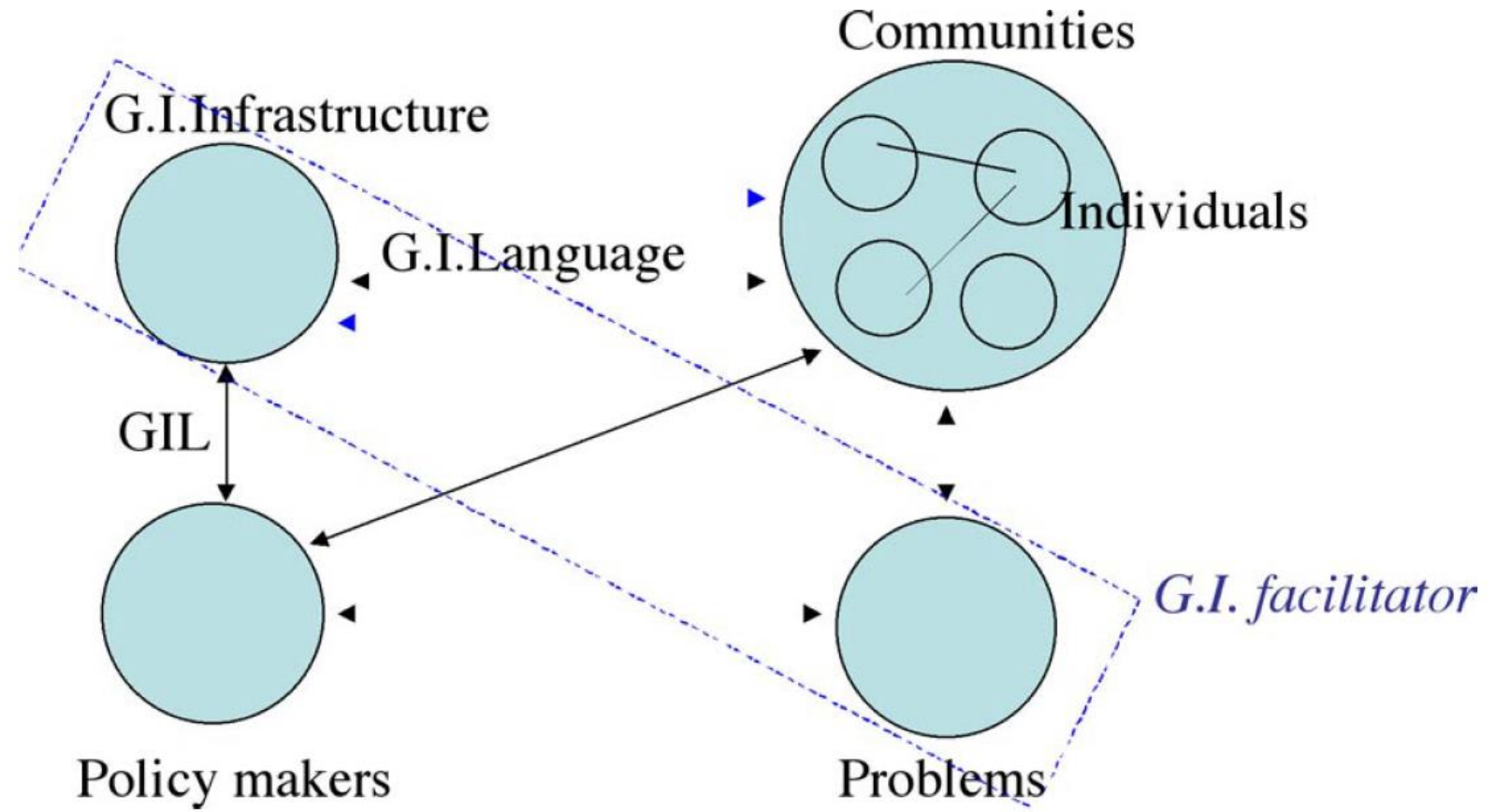
Techno-optimism and - pessimism assumptions

- ☺ the general public want to be more closely involved in decision-making, and those in positions of decision-making power actually value and therefore encourage public input
- ☹ willingness to become actively involved is lacking across the population as a whole and is symptomatic of a wider malaise in the democratic process; witness the poor turnouts in many elections and the mistrust and contempt in which we hold many politicians

Conceptual frameworks for analyzing Geospatial enabled dynamics between governments and citizens

Geospatial technology driven view on participation

Framework for participatory GIS
(Rugg, 2003)



role of geospatial technology in empowerment through participation?

Lessons learned from case studies in 2003

Illustration of the context, 2003

Specific geospatial concerns: UK

Key messages

Participation = complex:

5 interrelated components:

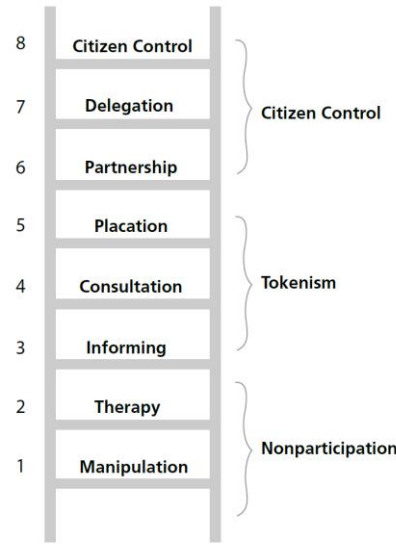
- 1) Issues for consultation
- 2) Notions of participation
- 3) Methods
- 4) Audiences
- 5) Outcomes (actual and desired)

Citizens tend to have a greater interest in "local" issues and can connect with them more readily

Changing relationships between Access to Information and Public Participation: role of authority (cf Geospatial dimension Role of geospatial in the digital transformation of government)

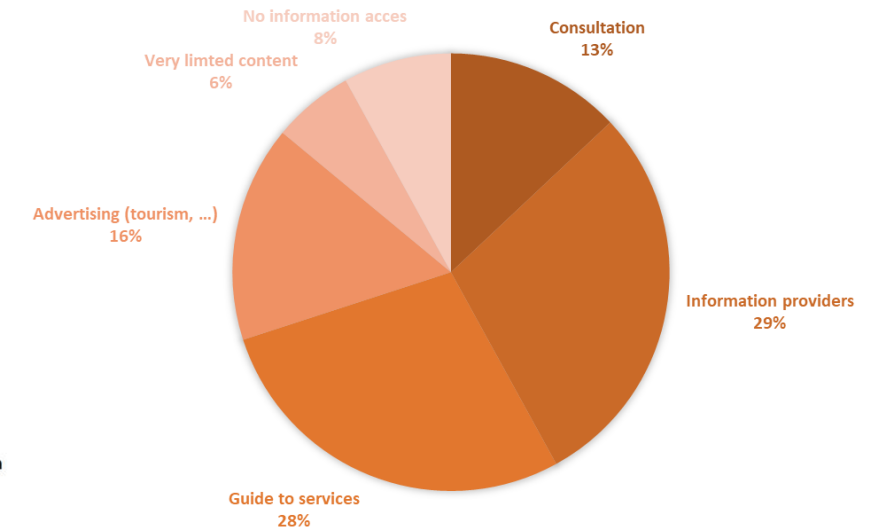
GI context specific:

- democratic problem = who takes the decision, who undergoes the consequences? NIMBY!
- complexity of GI requires GI specialists to support public (≠ neutral)
- helps define and contextualize local issues



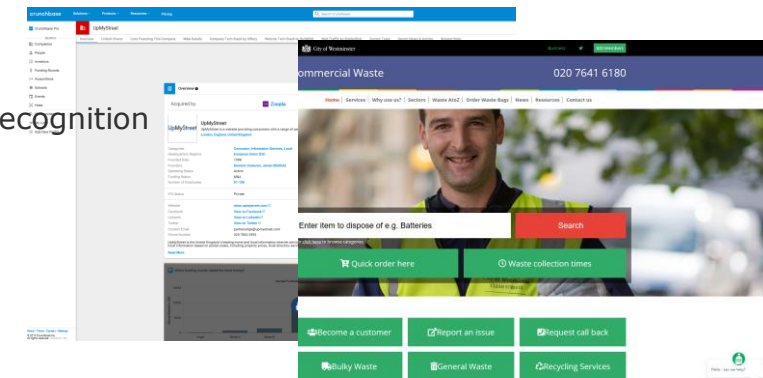
Best practices, 2003

CLASSIFICATION OF PARTICIPATION OF 300 UK LOCAL AUTHORITY WEBSITES



Evolution citizen driven initiatives by 2019:

- Disappeared
- Were privatised
- Changed beyond recognition



[Smith et al, 2003]

Cases and good practices, 2003

The Role of Local Political Context in Enhancing and Limiting PPGIS Production

- Multiple **government and non-governmental institutions**, positioned at different scales, play an **interconnected role** in shaping the **processes of participation** and of PPGIS production **+ in digital transformation**
- U.S. Department of Housing and Urban Development: the process of citizen participation is essentially being **conceptualized at a national scale** and then **enacted at a local scale**, which further adds to the complexity of the local political context and, affects the PPGIS efforts of (Milwaukee) community organizations → **coherence among scale levels**
- The role of the local political context as an influential factor in the PPGIS process is further complicated by the differential power positions occupied by the various participants. Local government entities hold a more powerful position than the community organizations and have different **modes of participation** that the **community organizations are compelled to accept if they wish to receive the funding** connected to such modes of participation. Use of **quota** may be in conflict with available **resources** → **equity in efforts for organizations and citizens**
- **Insufficient sharing** of inputs, visions, and documents among departments, citizens and community organizations end up either **duplicating** the input process (which costs them extra time) or having their input received by only one government agency instead of all → **efficiency in use of information in policy making**
- Residents **input perceived** as **not really taken in consideration**. They felt it was **ineffective** ... → **acknowledge message from citizens, transparency, communication and feedback**
- **Influence of culture (power distance, individualism vs collectivism, uncertainty avoidance, ...)**

STRENGTHS

- **GI as a focus for and facilitator of discussions between stakeholder groups. Ability to handle spatial information and communicate this to interested stakeholders; accept, organize and reflect user inputs during participation process**
- **Incorporate local community level perspectives on a particular decision problem; local people have more insights into local phenomena**
- **Citizen empowerment through greater involvement and openness and accountability on behalf of decision makers**

WEAKNESSES

- **Marginalization of minority with no or limited access**
- **Bias and errors in judgement influence decision-making**
- **Sense of place? GI data models able to cope with the quantitative and deterministic aspects of space, spatial scale and distance, but may not be best suited to representing the more qualitative and perceptual effects of place since this is more of a personal construct**
- **Transparency: how decisions are taken, technical and budget issues involved, how to get additional information, ...**

OPPORTUNITIES

- **Support stakeholder dialogue and public involvement in decision making**
- **More transparency: the decision makers themselves become more accountable for their actions on the basis that the decision making process is more transparent and based on freer dialogue between stakeholders**
- **Citizen more accountable for decisions made by individual stakeholders and stakeholder groups receiving greater decision-making responsibility**



THREATS

- **Potential for misinformation within participatory systems is quite high, and people need to be able trust the data and tools they are given if they are to trust the whole participation process**
- **Mistrust in the wider democratic process: relative positions of power in respect to different stakeholder groups within the decision making process remain**

New issues anno 2019?

[adapted from Carver, 2003]

Lessons learned from evolution, case studies in:

- empowerment through participatory GIS
- co-creation through Citizen-Science

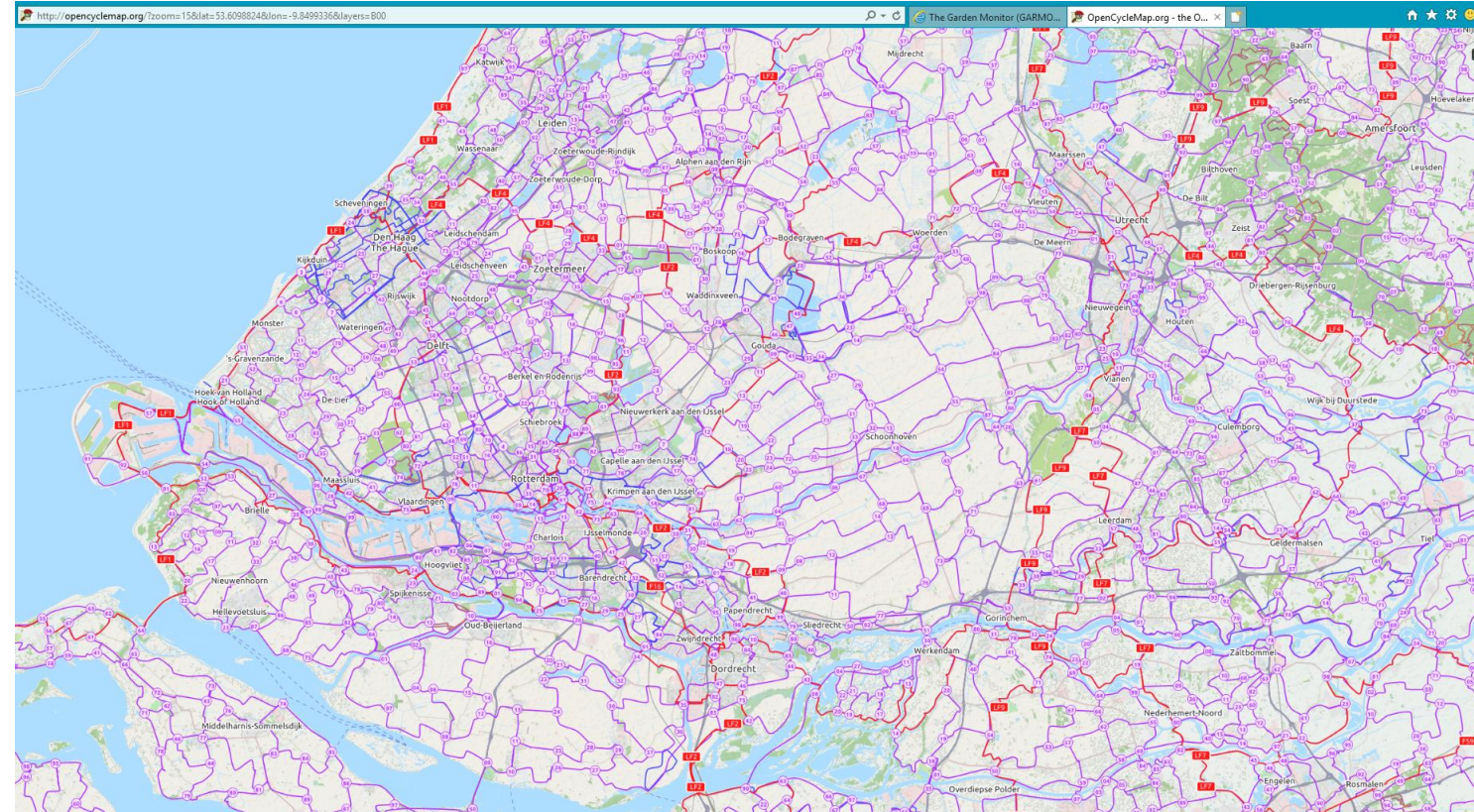
Liability and data quality

Good practices:

Use crowd sourcing for validation of public sector data

Example: OpenCycleMap in The Netherlands matching of Public works data and of the cycling Federation

- >> redflagging regions, routes with many inconsistencies
- >> identify locations of concern



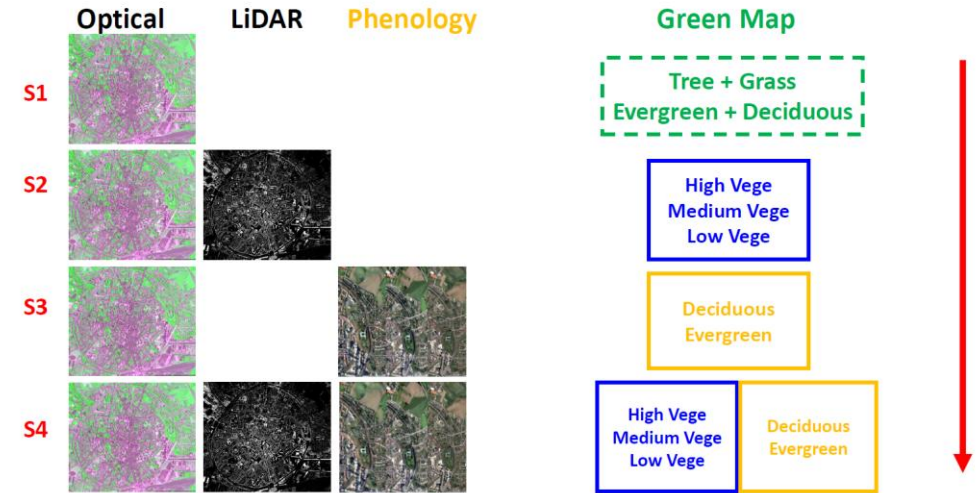
Liability and data quality

Good practises:

Use crowd sourcing for enriching data and testing mapping decisions and tools

Example: GARMON project, how can we map gardens?

Green mapping



Liability and data quality

Good practises:

Focus on hard to get local data

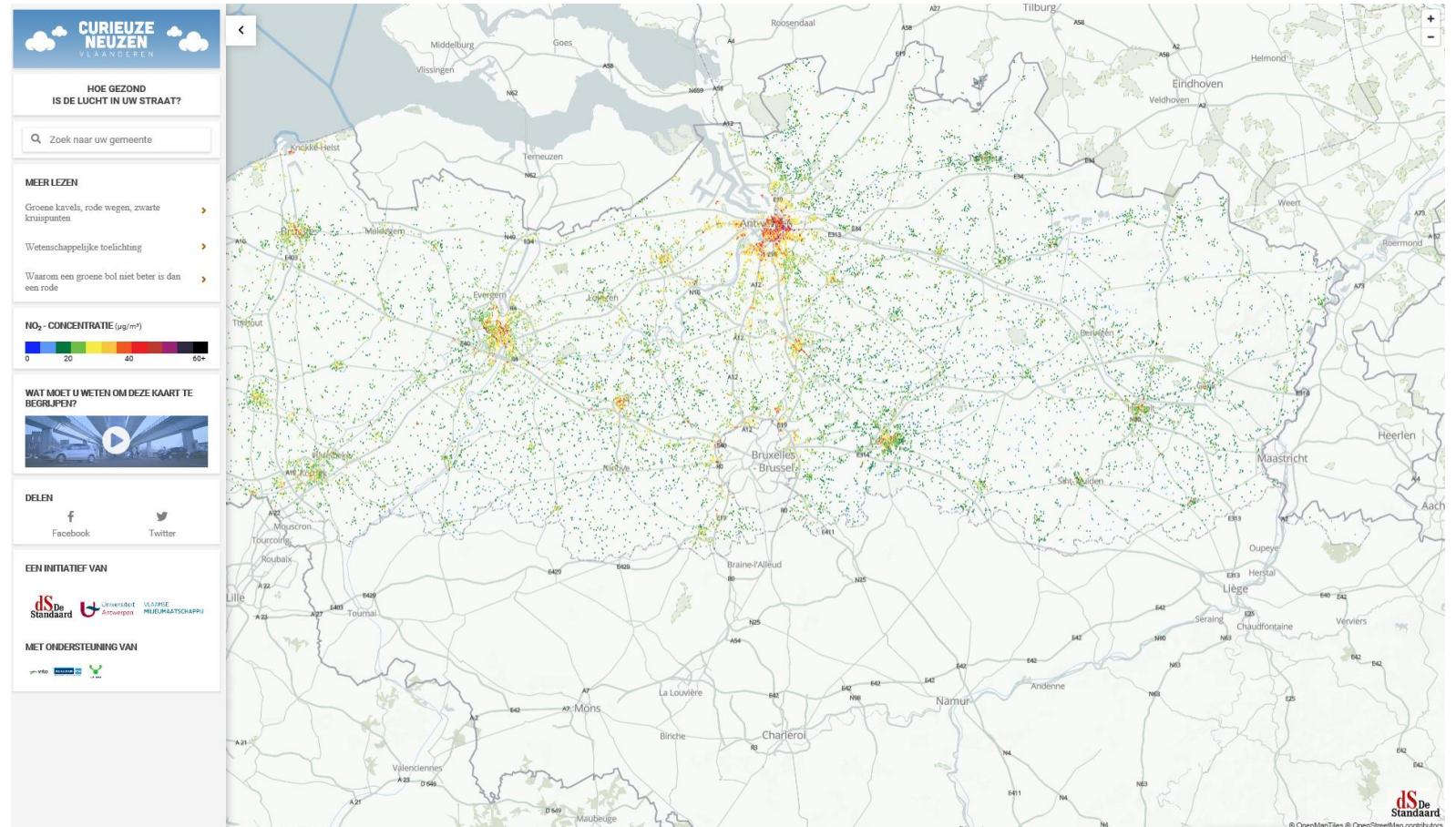
Combine data from different users for pattern identification, ...

Guidelines for citizen!

Feedback to participants

Inform policy makers,
government

Air quality



<https://viewer.curieuzeneuzen.be/>

Avoid fatigue, stimulate motivation

Good practices:

Stimulate STEM education with learning material.
networking, support



RESEARCH & INNOVATION
Research and Innovation Observatory – Horizon 2020 Policy Support Facility

Country analysis Policy Support Facility Library Statistics Thematic Analysis About

STEM action plan

The STEM Action Plan aims to encourage young people to choose scientific, technical, technological and mathematical university majors and professions. It has resulted in the STEM Monitor, an indicator dashboard that systematically tracks inflow into, and successful completion of, STEM studies at various levels of education.

From 2016 onwards the emphasis will be on target group policy (girls, technical and vocational secondary education and young people with a disadvantaged socio-economic background), as well as on the relevance of STEM to society.

Library

STEM-actieplan

Geo coverage: Belgium, Regional perspective
 Official adoption year: 2016
 Document type: National Legal Document
 Original URL: Website
 Author organisation: Flemish Department of Economics, Science and Innovation
 Download: Download the file

V.19.04.1 - 10 May 2019
 Last update: 22/08/2019 | Top | Legal notice | Contact | Search

WE SUPPORT THE
STEM DISCOVERY
WEEK 2019



- BECOME A PARTNER
- DOWNLOAD THE WEB GUIDE
- SUBMIT STEM ACTIVITIES OR ACTIONS

INITIATING PROJECTS



PARTNER PROJECTS



PARTNER



3	Enter the dates when the air meter was out. Use the comment field to enter more information about each meter. For example, there may be information about whether the meter was hanging so that it turned towards or away from traffic / road, whether there is a lot of traffic in the area, whether there have been major events or roadworks nearby, and other information you think may be interesting for scientists.	
4	Select a smiley (emoji) that matches the found dust level and click "Save".	
5	You can return to the map and enter data from other air meters. Click "Sign out" when done. You can see the data from other people in the map.	

http://renluftforalle.nilu.no

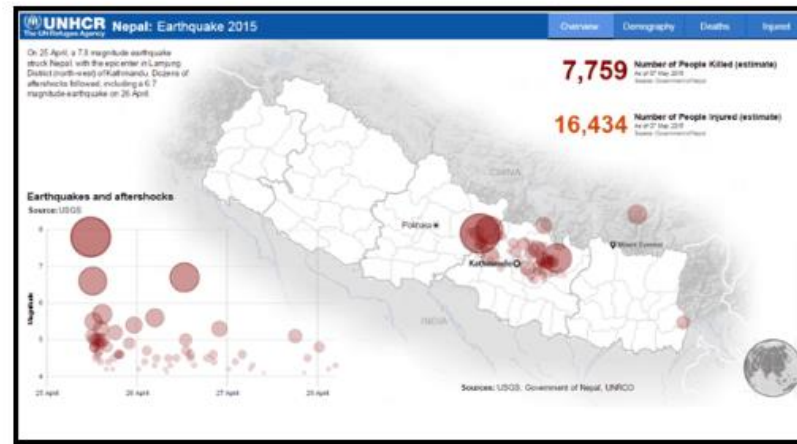
Avoid fatigue, stimulate motivation
Good practices:

Link with events

Humanitarian aid: quick response without policy intervention

Intermediaries replaced by self-organized end users (skilled citizens, professional experts, ...)

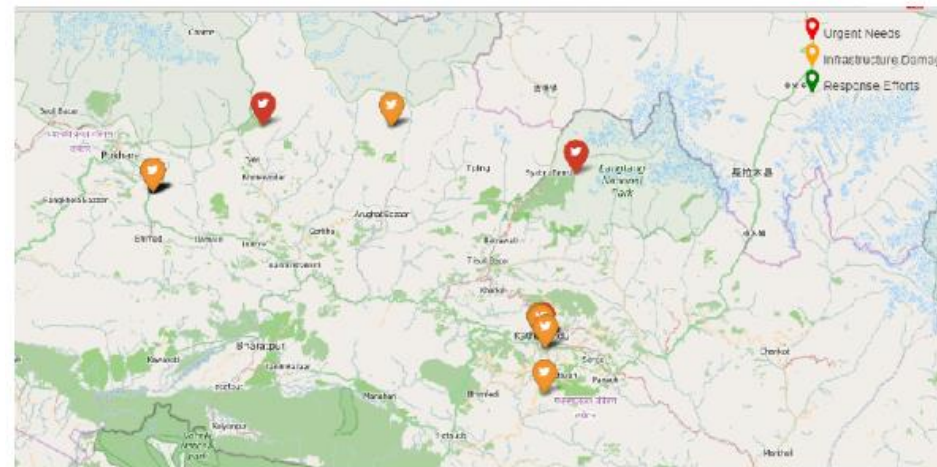
➤ Importance of skilled end users



Crowdsourced Crisis Mapping for Nepal

OpenStreetMap (OSM) using maps from Bing to overlay crowdsourced data, sprung to action through its **OSM 2015 Nepal earthquake contributions page**. However, the situation posed several challenges. The region was rugged and mountainous, roads had gone missing, avalanches had altered the terrain and local infrastructure had come to a standstill. Contributors from around the world pitched in to trace roads, residential areas and buildings. As the details came to the fore, the area was spilt grid-wise, validated by experienced mappers, using established checks in place. The **OSM tasking manager** used a sophisticated system for validating volunteered contributions, identifying places that needed urgent attention or connecting the missing links.

From **StandBy Task Force**, the Micromapping platform maps out finer details relating to the Nepal Earthquake with the **Image Crisis map** and **Tweet Crisis map**.



TWEET CRISIS MAP - NEPAL EARTHQUAKE (9TH MAY 2015) FROM **STANDBY TASK FORCE**

Avoid fatigue, stimulate motivation

Good practises:

Make use of existing events (sensibilisation campaigns, commemorations, ...)
or join/create own events



➤ Interoperable, reusable tools!

Commemorations



UGESCO, UGESCROWD project

Avoid fatigue, stimulate motivation
Good practises:

Gamification, challenges

The 2019 Audubon Photography Awards: Winners

Get ready to be amazed by this year's selection of eye-popping images.



By The Editors
Summer 2019

Birds make fascinating subjects, as the winners and honorable mentions of this year's contest, our 10th, make clear. They're at once beautiful and resilient, complex and comical. It's no wonder why we love them so.

The images that won the 2019 Audubon Photography Awards, presented in association with Nature's Best Photography, are as impressive as ever, but attentive readers might notice a few more images than usual. That's because we've added two awards. The Plants for Birds category is inspired by Audubon's [Plants for Birds](#) program, supported by Coleman and Susan Burke, which provides resources for choosing and finding plants native to [zip codes](#) in the United States. This category poses a new challenge to photographers: Don't just capture an incredible moment—make sure it also features a bird and plant native to the location in which the photo was taken in order to highlight the critical role native habitat plays in supporting bird life. And in the spirit of Kevin Fisher, Audubon's [longtime creative director](#) who recently retired, the Fisher Prize recognizes a creative approach to photographing birds that blends originality with technical expertise. The winning image, which Kevin himself selected from among the finalists, pushes the bounds of traditional bird photography.

We want to extend a heartfelt thank you to all 2,253 entrants, hailing from all 50 U.S. states, Washington, D.C., and 10 Canadian provinces and territories. Your dedication to appreciating, celebrating, and sharing the wonder of birds and the landscapes they inhabit inspires us now and throughout the year.

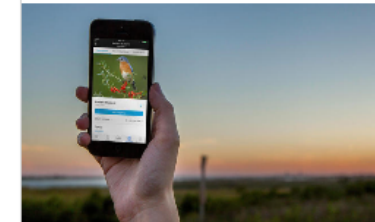
The 2019 APA Judges

Steve Freligh, publisher, [Nature's Best Photography](#)

Melissa Groo, [wildlife photographer](#) and winner of the 2015 contest's Grand Prize

Download the Audubon Bird Guide App

More than 800 North American birds at your fingertips—all for free.

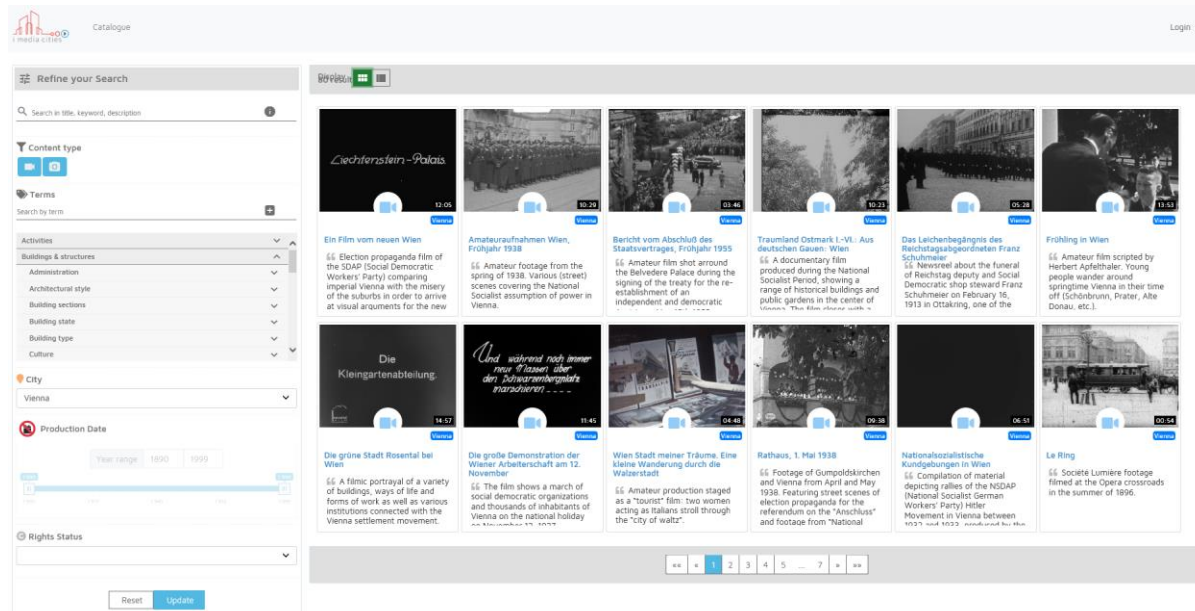
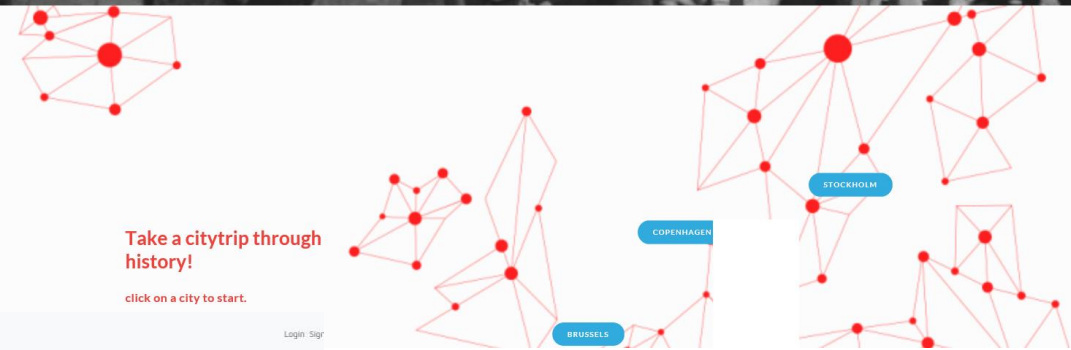
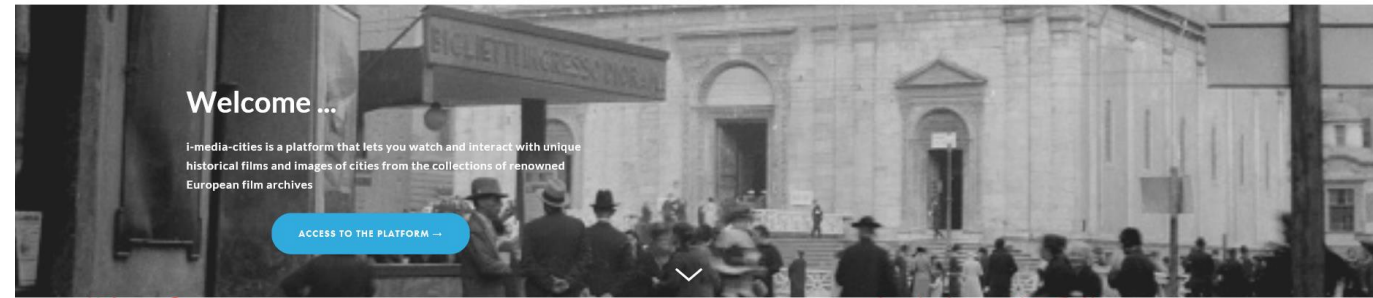


Privacy

Good practise: I-Media-Cities

Research on what can be publicly accessed

- Make parts of historic movies available (e.g. buildings, landscapes, crowds, ...)
- Leave out frames / objects with privacy issues

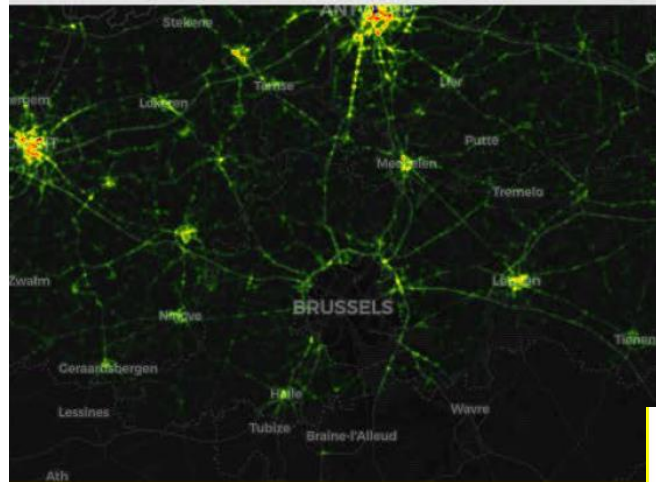
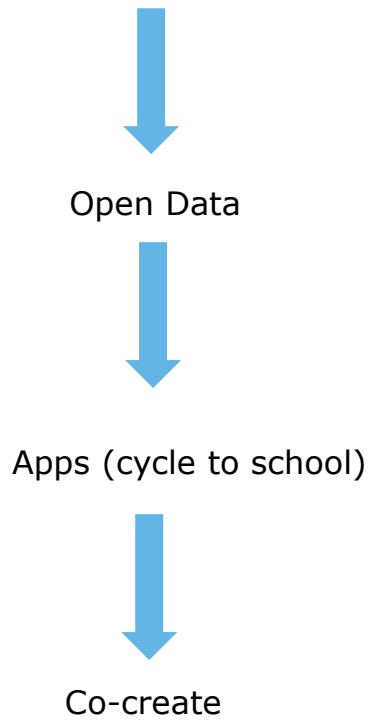


Ontology is not value-free; e.g. it affects what is mapped and by whom!

Privacy

Good practise: Polivisu

Develop geospatial tools for anonymisation through spatial aggregation (from accident locations to black zones, from ANPR data to flows, ..)

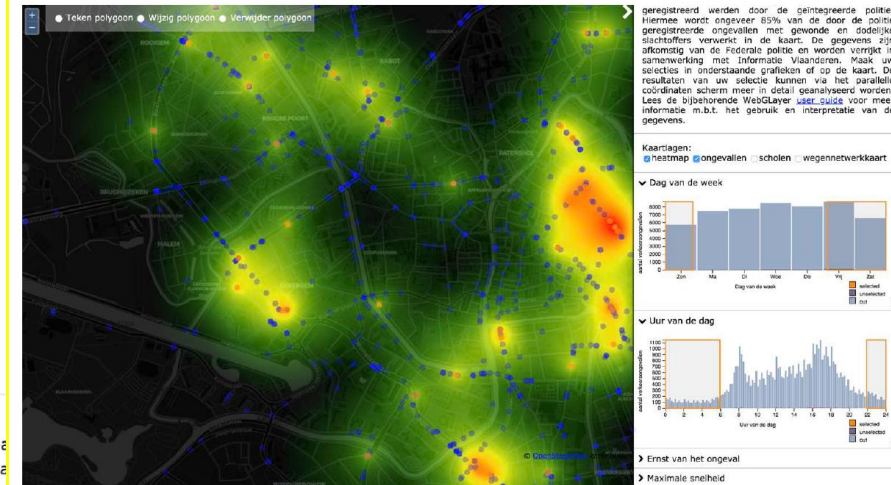


Example 2: The traffic accidents app for Flanders

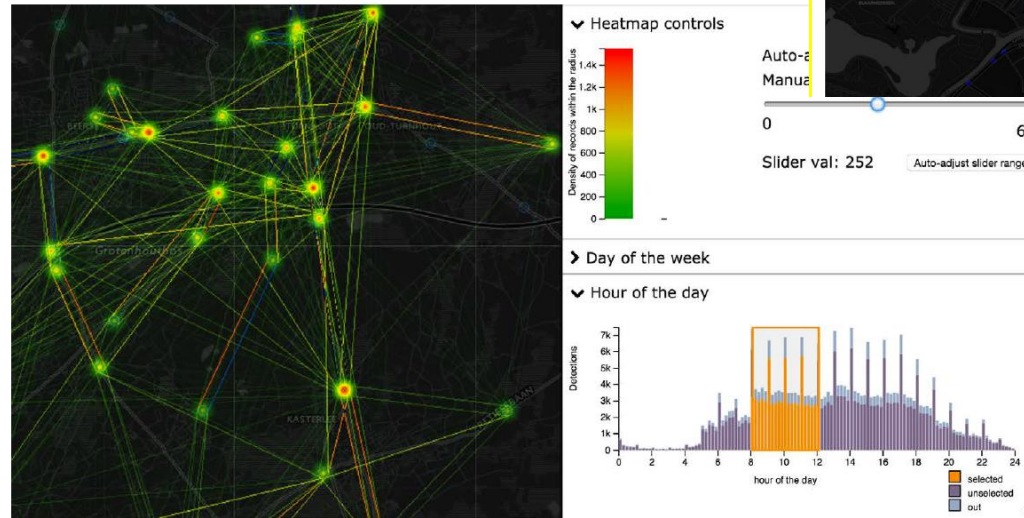
The analytical tool allows decision makers to discover hotspots of traffic accidents (e.g. accidents in certain hours of the day or on certain weekdays, accidents with certain accident severity, accidents nearby schools etc.) and thus helps to identify most risky areas where to apply specific traffic management or security measures

ENTER THE MAP

Advanced data visualisation – Interactive heatmaps



Turnout – Anonymized ANPR data (number plate recognition) for traffic measurement



<http://polivisu.eu/>

Strengths and opportunities

Tools for supporting co-creation + access to information



<https://www.timemachine.eu>

The Venice Time Machine



- Big data of the past
- A community of communities
- Tools for academics, industry, government, citizen to explore the past



€ € € € €
Manageability

↓
Local time machines

↓
Matthew effect favoring 'usual suspects'?

Increased threat:

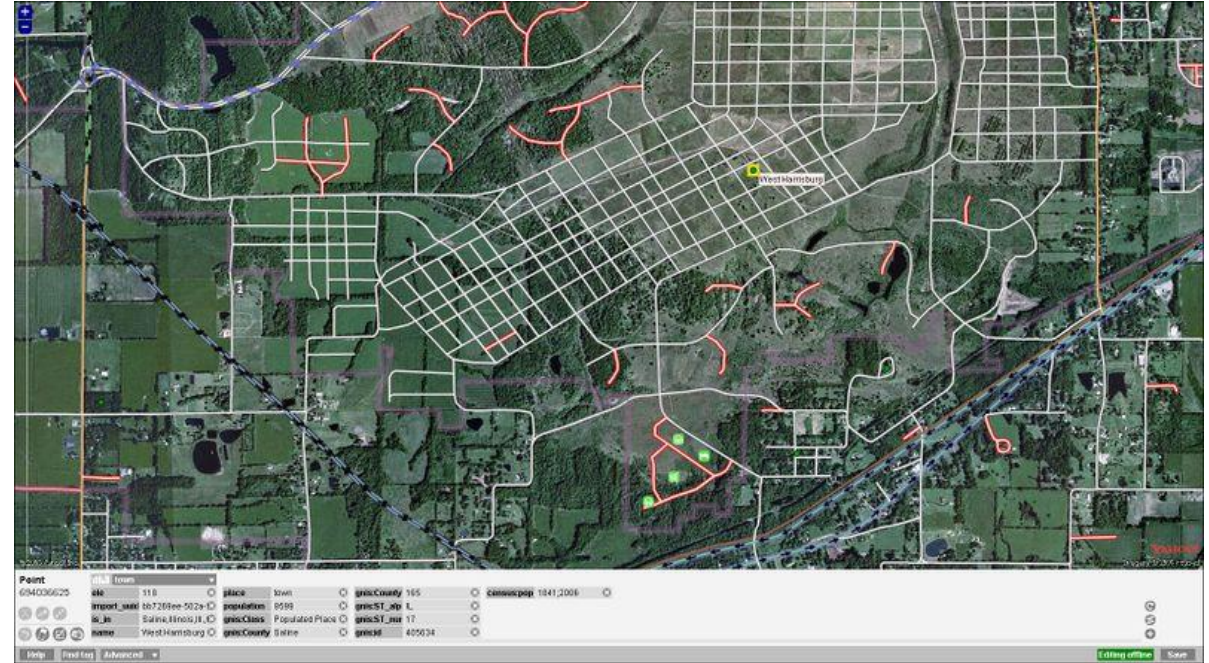
Vandalism and other types of bad edits

- Copyright infringement
- Disputes within the OpenStreetMap database (edit wars)
- Disputes on the wiki
- Inappropriate use of Bots
- Persistent disruptive behaviour
- Spamming
- Purposeful removal or degradation of data that are known to be correct
- Deliberate adding incorrect data
- Undiscussed imports

Why? For fun? Manipulation? Infiltration?

Response:

- Prevention (clear guidelines)
- Corrections (normal revert, Speedy revert)
- Sanctions (temporary block, permanent ban)

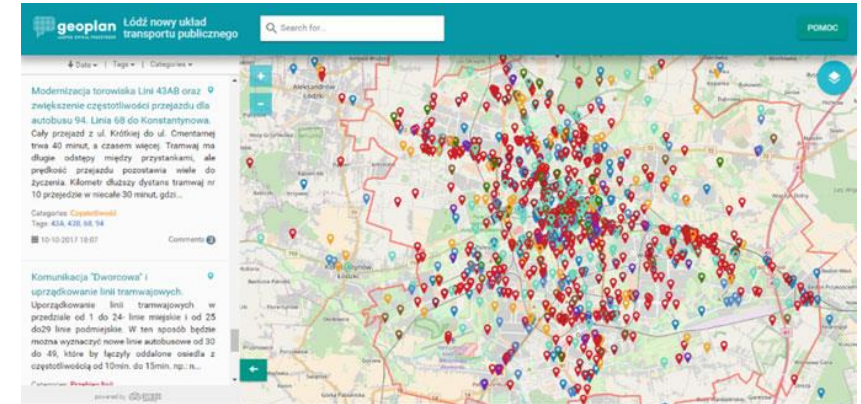


Vandalism in the form of a fake town

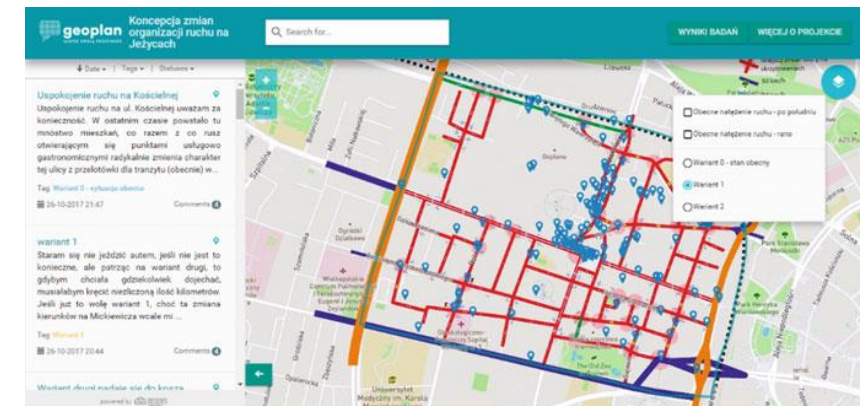
<https://wiki.openstreetmap.org/wiki/Vandalism>

Questions concerning **viability and usefulness** for aiding participatory democracy and decision-making processes at a local level

- digital divide + participatory mapping requires basic **map literacy skills** (➤ **Geospatial Literacy Geospatial Primer!**)
- lack of **trust** among planners and decision makers in **data quality generated by public participation** (➤ **geospatial skills vocabulary!**)
- **lack of evidence** on whether or not Geoweb methods supporting **participatory** processes **contribute to sustainable planning decisions**
- are such methods capable of facilitating a **two-way communication** between urban planners and the participating public?



Depending on the size of the case area and the public resonance of the case, the pilot implementations resulted in varying levels of usage



The difference in participant activity levels is most likely the result of varying target populations (from 5500 to 701,000) and, to lesser degree, areas concerned

Synthesis of main messages

STRENGTHS	WEAKNESSES
<p>Worldwide PPGIS</p> <p>Geospatial skills (cf. Geospatial Primer related to Geospatial Literacy)</p> <p>Social acceptance = "bundle of dynamic processes" instead of a set of (fixed) actor positions (Roddis et al. 2019)</p>	<p>Security, vulnerability to: manipulation, vandalism, hacking</p> <p>Participation cultural differences remain</p>
OPPORTUNITIES	THREATS
<p>Further technological developments wireless communication, IoT, ...</p> <p>Inspiring examples of planners and decision makers relying on data generated by public</p>	<p>Relative positions of power in respect to different stakeholder groups within the decision making process remain or are exacerbated</p>

Uncertainties

Research needs: how can geospatial technology support participatory processes + contribute to sustainable planning decisions?

Communication needs: can geospatial technology facilitate two-way communication between (urban) planners / decision makers and the participating public?



New issues anno 2019

Conclusion and recommendations

Conclusion

Geospatial technology and public participation today is about ...

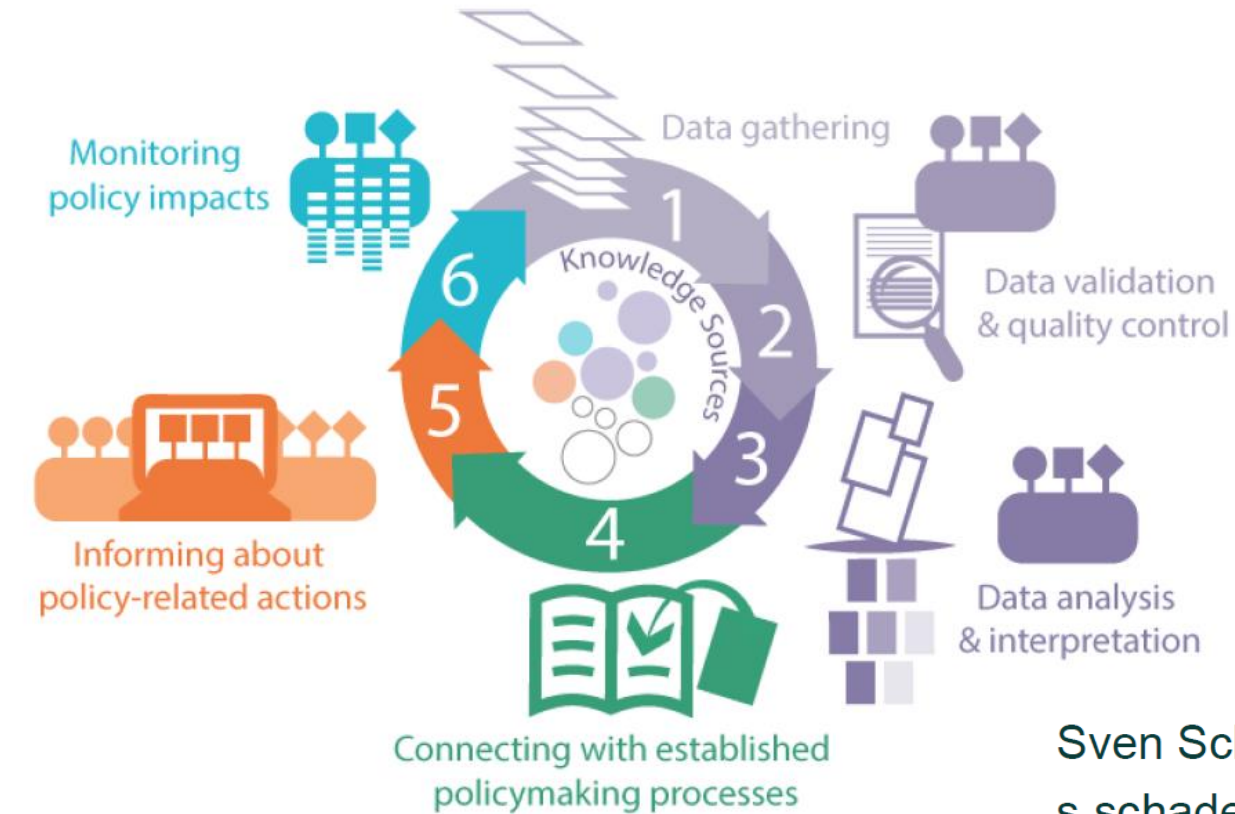
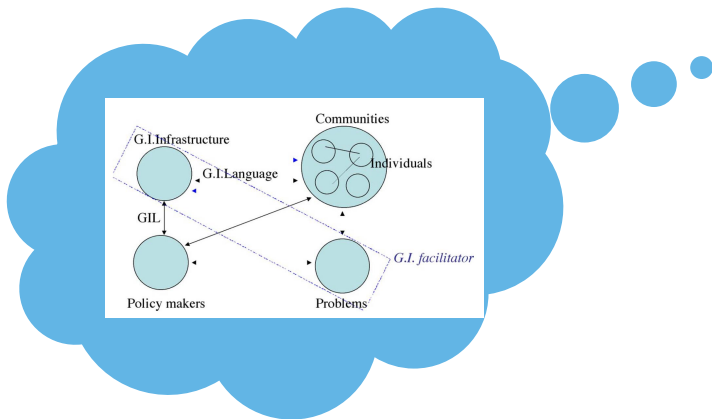
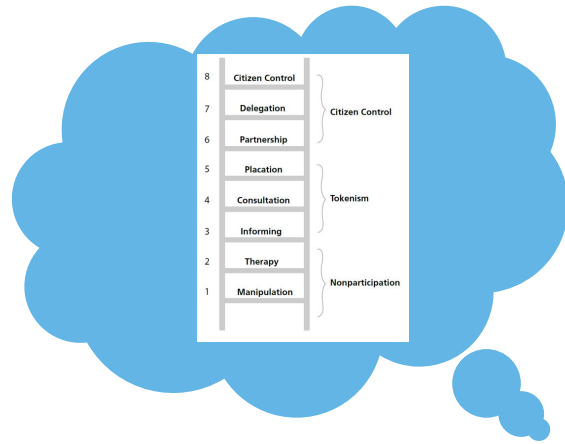


Recommendations

- Acknowledge and avoid implicit discrimination, new geospatial technology \neq value-free (e.g. ontologies)
- Empowerment starts with skills, education and awareness raising is the key (e.g. PPGIS)
- Government as partner in self-organized communities. From participation, to co-creation, to co-evolution
- Further research equity issues related to the massive use of data from varied sources, including citizens and the emerging issues of the application of AI

Upcoming: New analytical models to understand interactions citizen <-> policy in citizen science strategies

Empowerment: Who, What, How, Why, Where, When?
and their effect on democracy



● Citizens ■ Policy officer ◆ Other stakeholders

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Open Questions

- What challenges do public authorities face for participatory activities using geospatial data, technologies, thinking?
- Are there any other examples in this context that you think others could find interesting?
- Are there other issues/aspects we did not touch upon today that you would like to raise or see addressed?



Next steps

Next steps

ELISE Rapid Studies

Rapid Study on Geospatial technology and public participation: collection of feedback for possible use in our **Geospatial Primer** and **Workshop Pack**

- **Previous Rapid Studies**
 - The role of geospatial in the digital government transformation
 - APIs: benefits and governance models for the public sectors
 - Persistent Identifiers (PID)
- **Planned Rapid Studies:**
 - The role of ***SDIs in the Digital Transformation of Public Administrations*** (late September)
- Other rapid studies will follow
 - What else should we investigate?

<https://joinup.ec.europa.eu/collection/elise-european-location-interoperability-solutions-e-government/elise-rapid-studies-and-webinars>



Key Literature Resources

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