



Visualising open communities. Guidelines from three case studies

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Introduction

Open communities are initiatives that are based around communities that adopts **digital platforms**, develop digital solutions and are **open to share their processes and results**.

Their importance in **developing and scaling social innovations** render their understanding relevant not just related to their dynamics, but also for improving the **understanding of the dynamics of social innovations and online platforms**.

We aim at improving the knowledge about the **use of visualisations for understanding open communities**, the **data sources and formats** available and the missing ones, the main **design requirements and strategies** for this task, and the common **design approaches** in existing ongoing experiences.



Open Communities: makers, wikipedians, digital social innovators

Research Question(s)

1. How could visualisations improve our **understanding of open communities**?
 - a. Which **data sources** can be used (also as a proxy) for the understanding of open communities?
 - b. Which are the **design requirements and strategies** for visualising open communities?
 - c. Which are the **common design elements and methodologies** in existing ongoing experiences in visualising open communities?
 - d. What is the **role of online platforms** in understanding open communities through visualisations?

Open communities #01: Makers

Labs Map | FabLabs

Secure | <https://www.fablabs.io/labs/map>

Search.. Labs Orgs Machines Projects

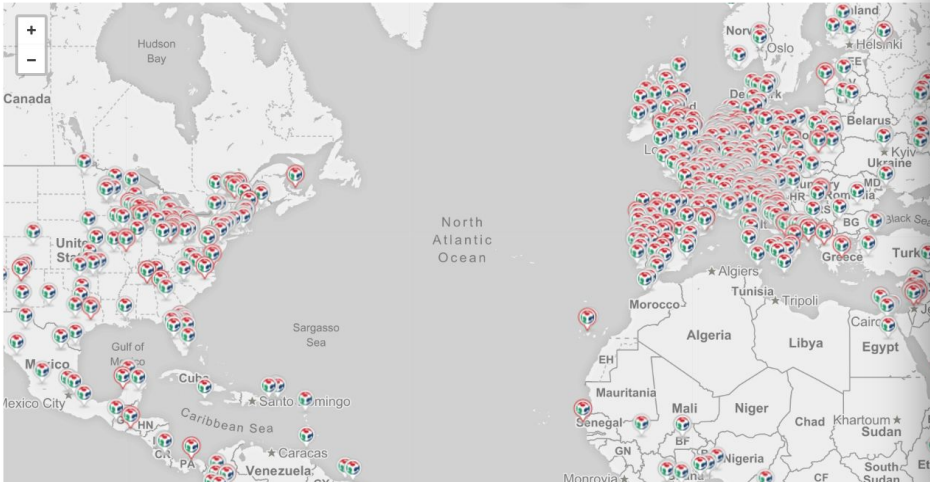
Labs

A Fab Lab is a technical prototyping platform for innovation and invention, providing stimulus for local entrepreneurship. A Fab Lab is also a platform for learning and innovation: a place to play, to create, to learn, to mentor, to invent. To be a Fab Lab means connecting to a global community of learners, educators, technologists, researchers, makers and innovators- a knowledge sharing network that spans 30 countries and 24 time zones. Because all Fab Labs share common tools and processes, the program is building a global network, a distributed laboratory for research and invention. Here in this section you can explore the official list of Fab Labs.

You can read more about Fab Labs on the Fab Foundation website [here](#).

Expand the Network
Here you can add your Lab to the list.

[+ Add Lab](#)



Projects | FabLabs

Secure | <https://www.fablabs.io/projects>

Search.. Labs Orgs Machines Projects

Projects

The global Fab Lab Network connects makers, students, citizens and professionals with digital manufacturing and communication technologies. Anybody can share bits of digital projects globally which can then turned into atoms of physical objects locally. Fablabs.io hosts and promotes such projects within the Fab Lab Network in this section.

Projects



Ceramic moulding pieces

Using formlabs 3d printer to print jewellery pieces, in order to make ceramic moulds out of them.

[more](#)

Pedro1 November 22, 2017



Spare part for Raps sk...

A plastic part under the heel cracked so i tried to print new one.

[more](#)

Jarvena October 30, 2017



Maquette Bois

Nous voudrions créer une maquette en bois

[more](#)



Large (empty) prism

Large hollow (water filled) prism for optical imaging is constructed from transparent

MAKE-IT is a Horizon 2020 European research project focused on how the role of Collective Awareness Platforms (CAPS) enables the growth and governance of the Maker movement using and creating *social innovations* and achieving *sustainability*.

<http://make-it.io/>



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688241

Introduction

The Fab City initiative operates within the Fab Lab network, using it as a global infrastructure and knowledge source for the radical transformation on how we work, live and play in cities.

<http://fab.city/>



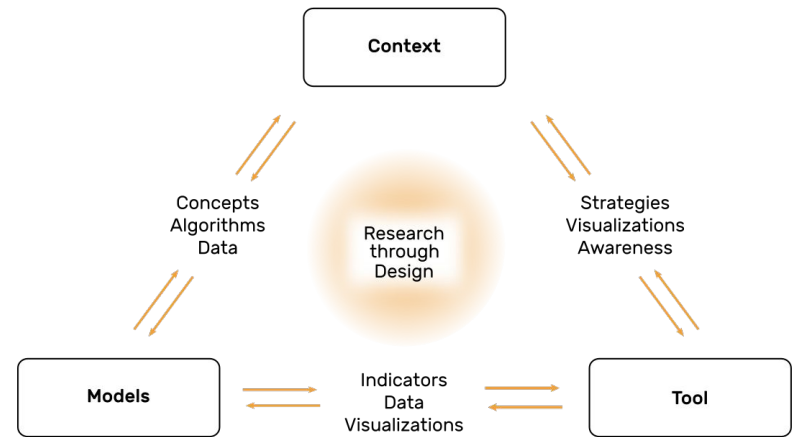
Introduction

The visualisation shows Fab Labs, Maker projects and their simulated impact over city resilience (wellbeing).

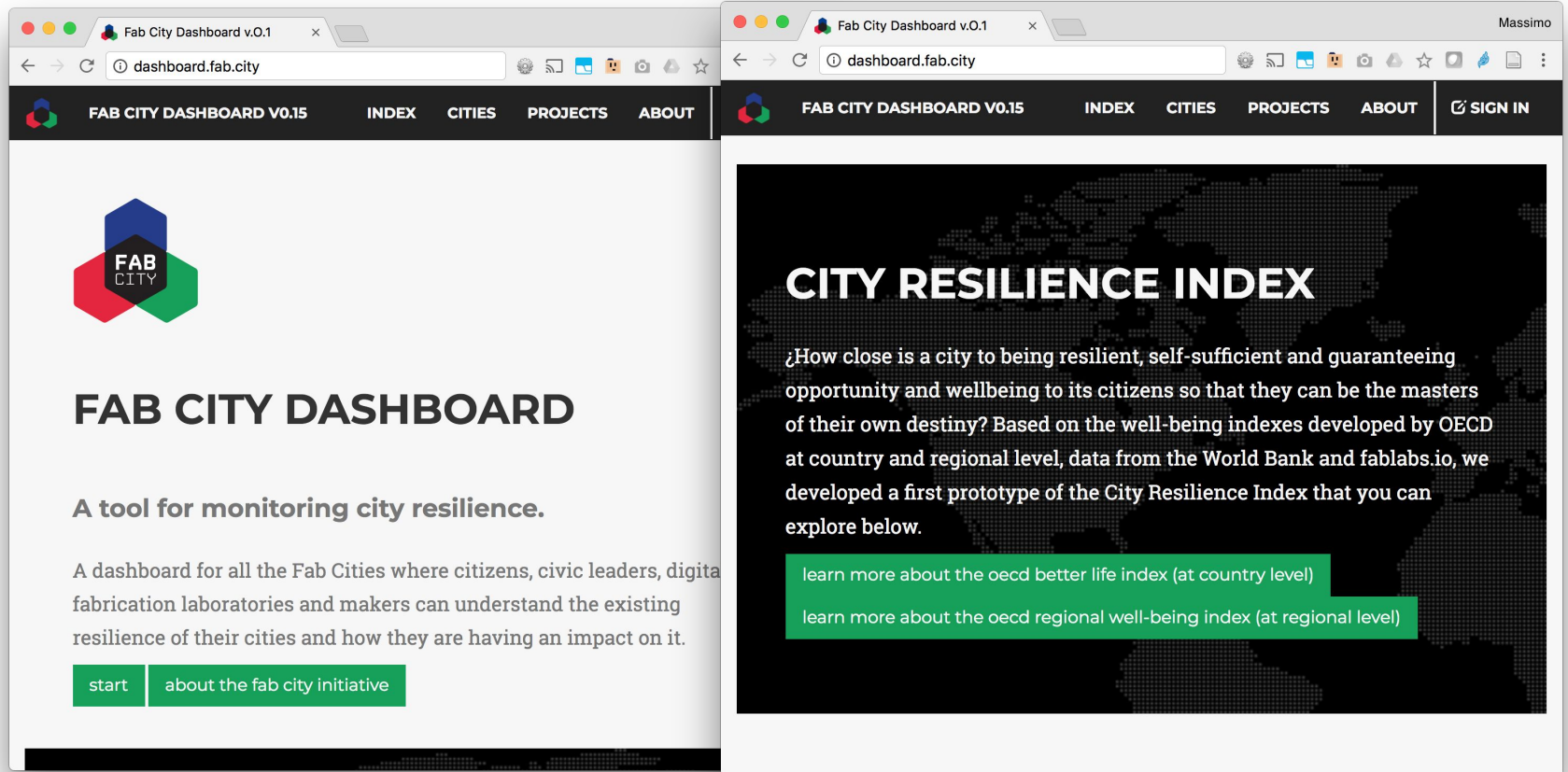
Research-through-design approach: focus on exploring what can be modeled, analysed and visualised instead of visualising ready datasets or established abstract frameworks.

Rough prototype developed during a 9 days hackathon at Visualizar'16 (Medialab Prado, Madrid).

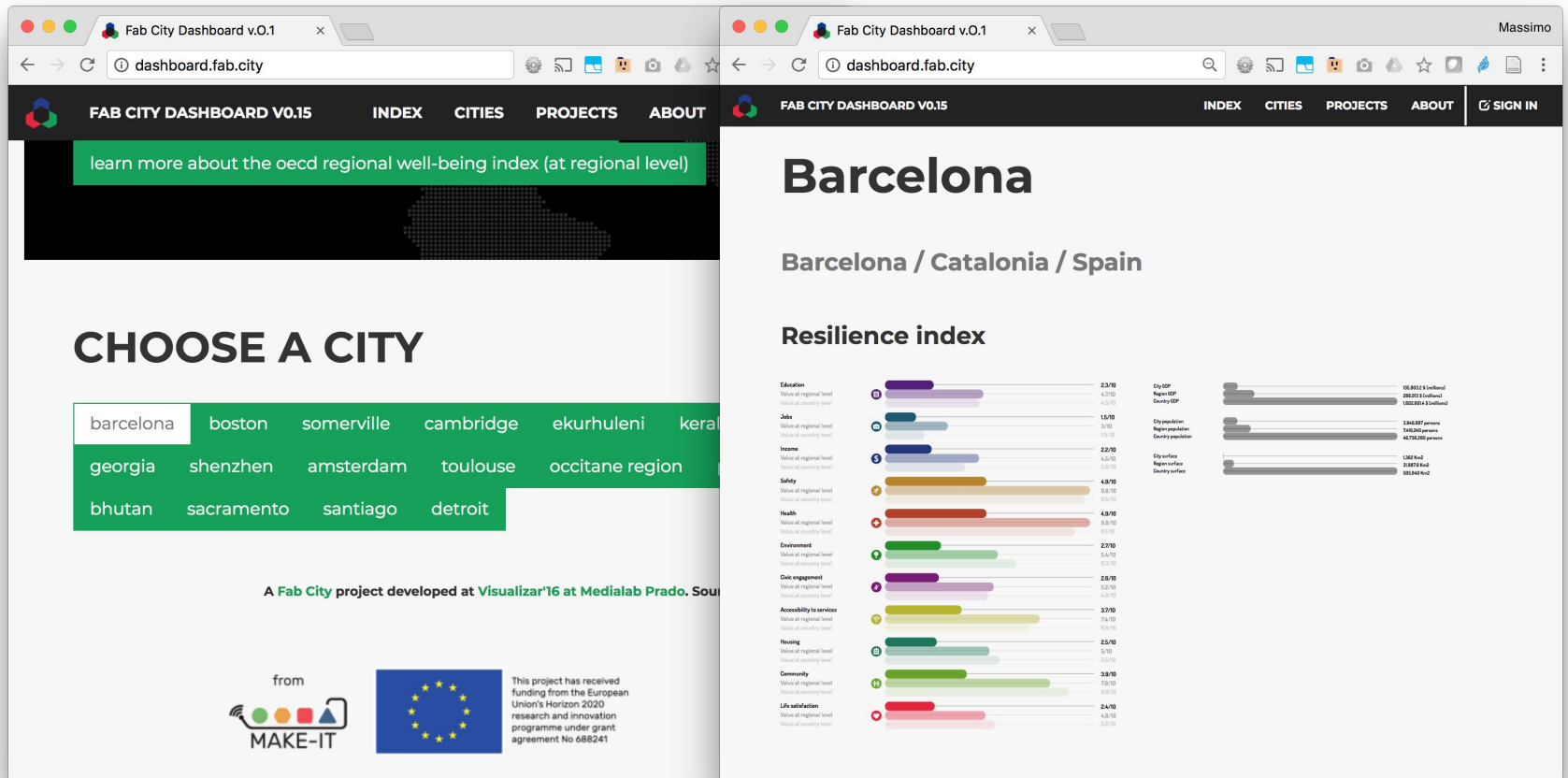
Data collected from the <http://fablabs.io> platform and OECD national and regional wellbeing.



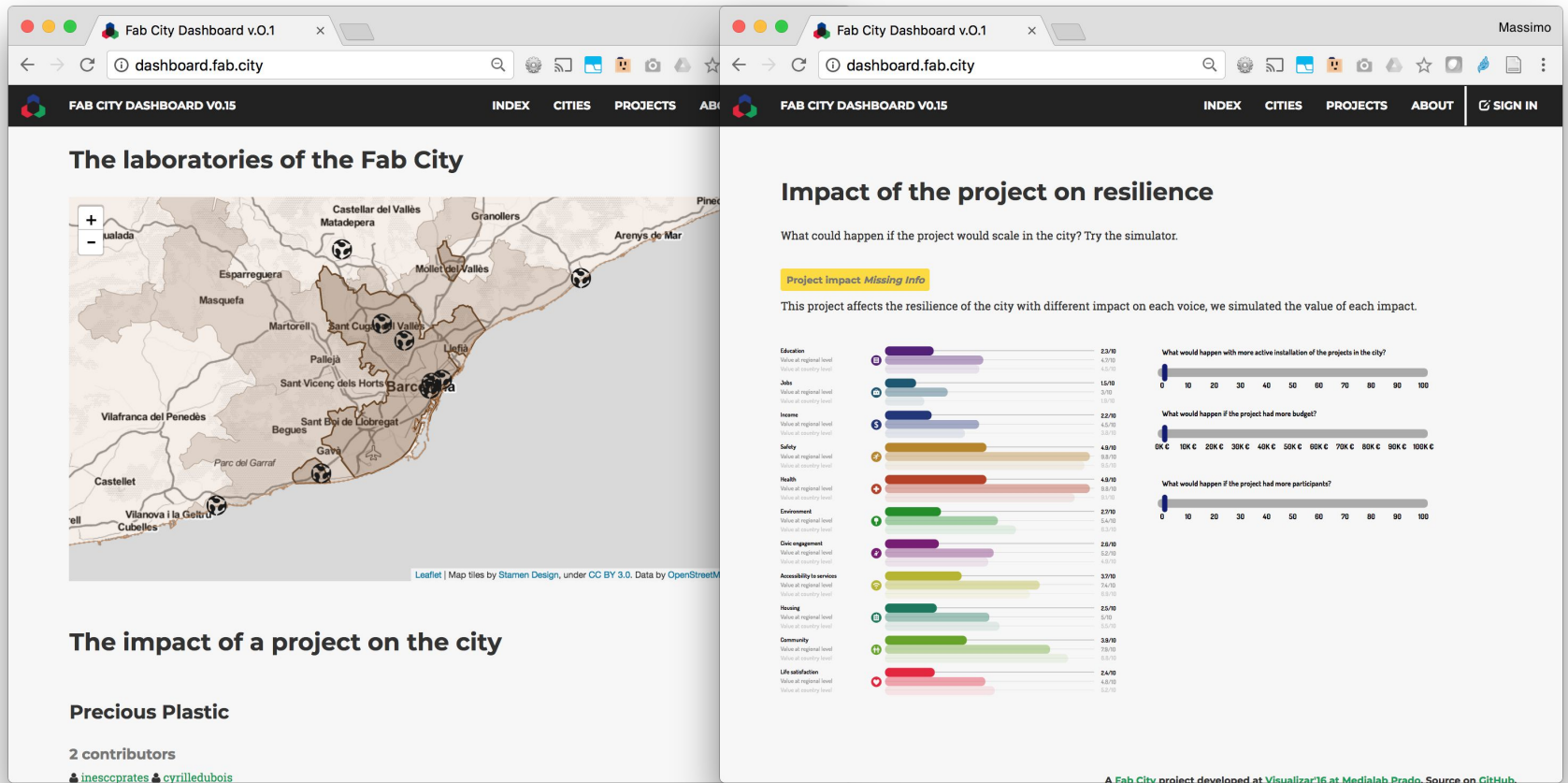
Methodology



Visualisation - <http://dashboard.fab.city/>



Visualisation - <http://dashboard.fab.city/>



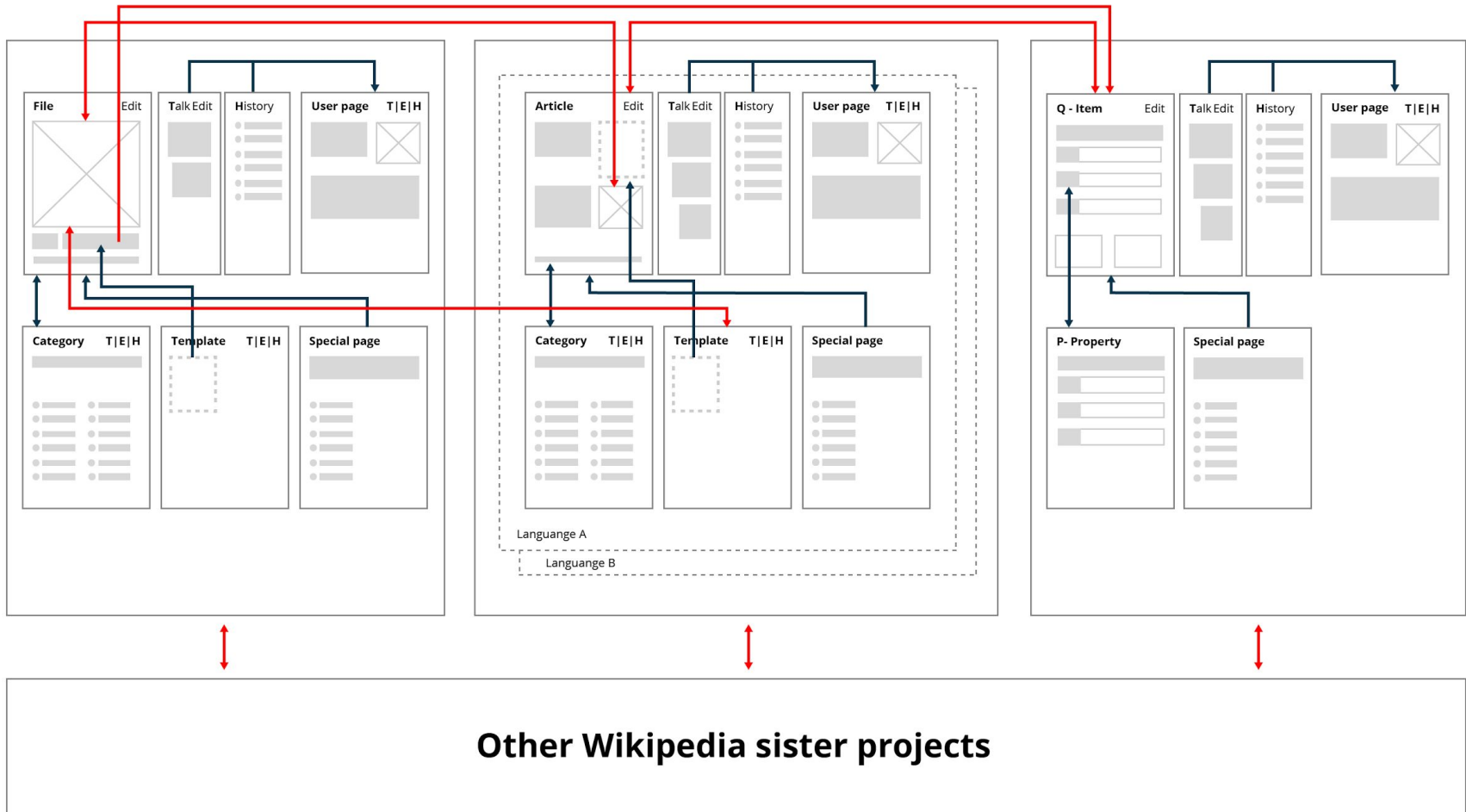
Visualisation - <http://dashboard.fab.city/>

Open communities #02: Wikipedians

Wikimedia Commons

Wikipedia

Wikidata



The Wikipedia Primary School project aims in developing and evaluating a system to assess Wikipedia articles for primary education and seeks to involve a wide network of scholars and contributors in their production.

https://meta.wikimedia.org/wiki/Research:Wikipedia_Primary_School_SSAJRP_programme

Introduction



Funding



Project leaders

University of Applied Sciences and Arts
of Southern Switzerland

SUPSI



Partners



AFRICA  CENTRE



Research team

Iolanda Pensa (principal investigator, Switzerland),
Tobias Schönwetter (principal investigator, South Africa),
Luca Botturi, Florence Devouard, Giancarlo Gianocca,
Erica Litrenta, Giovanni Profeta, Marta Pucciarelli, Kelsey Wiens

State of the art

Hypothesis

August, 2015



Intermediate State

Comparison

March, 2016



Project conclusion

Insights

June, 2017



-
- Articles' assessment

- Review by Wikipedia community
- Review by experts
- Review by scientific journals

- Online writing contest

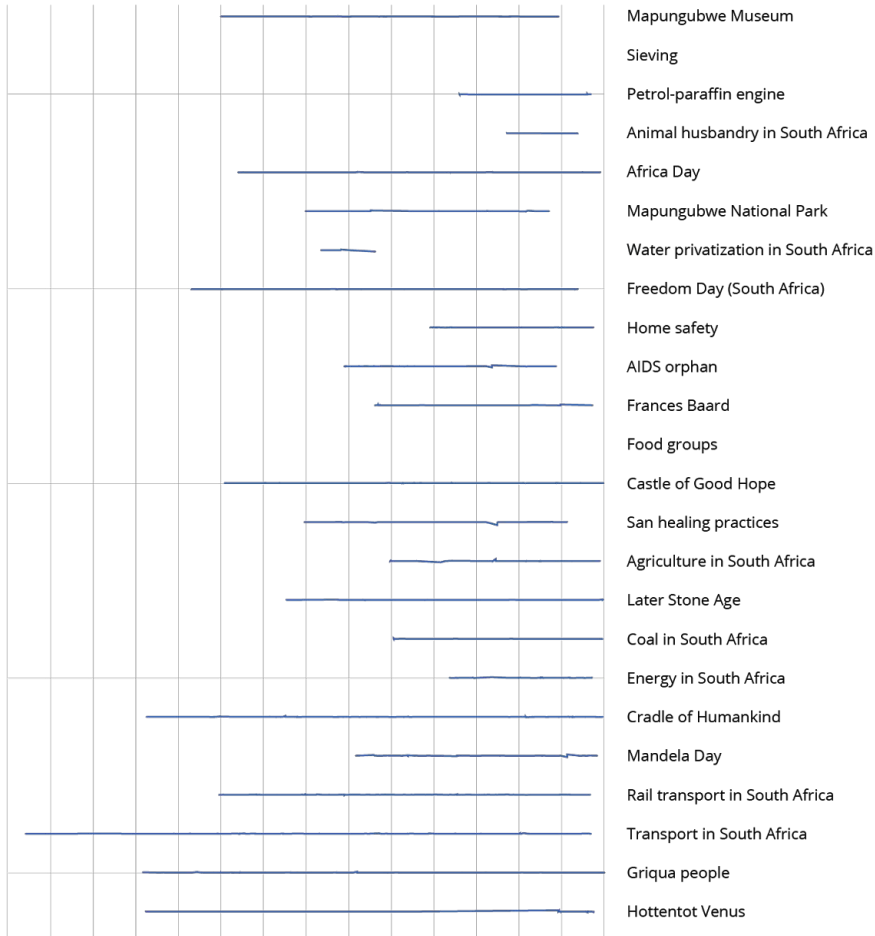
- Edit-a-thons

- Articles featured
on Wikipedia Portal pages

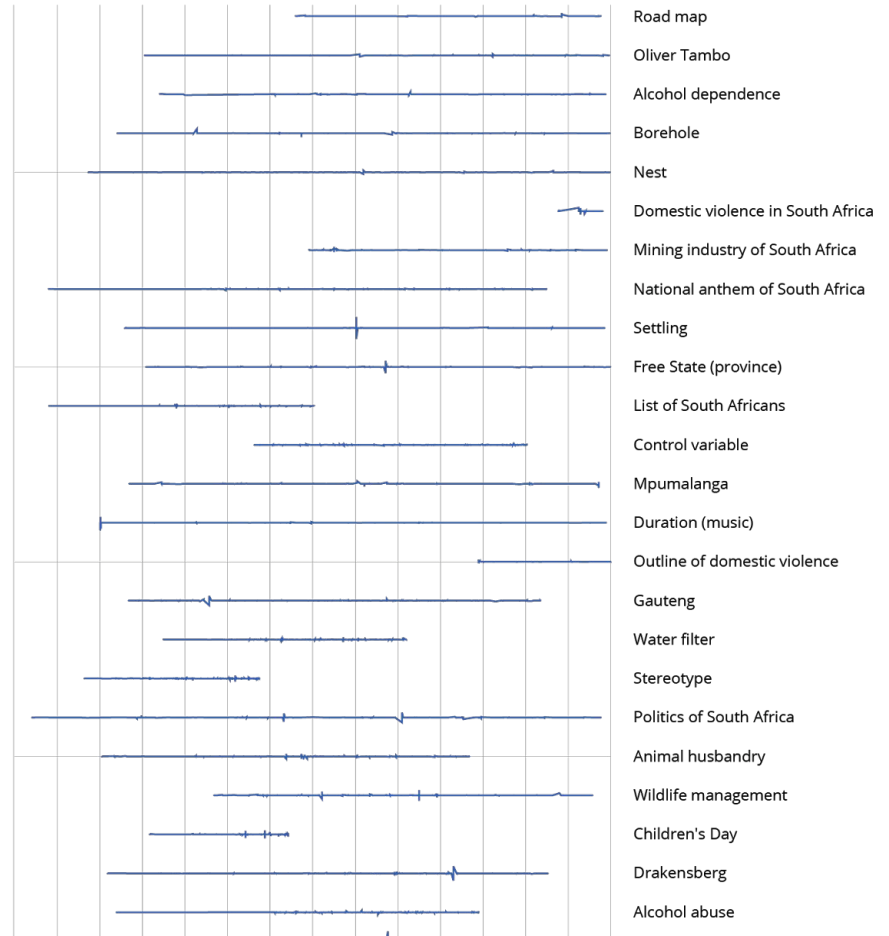
- Call for new article creation

Methodology

2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014



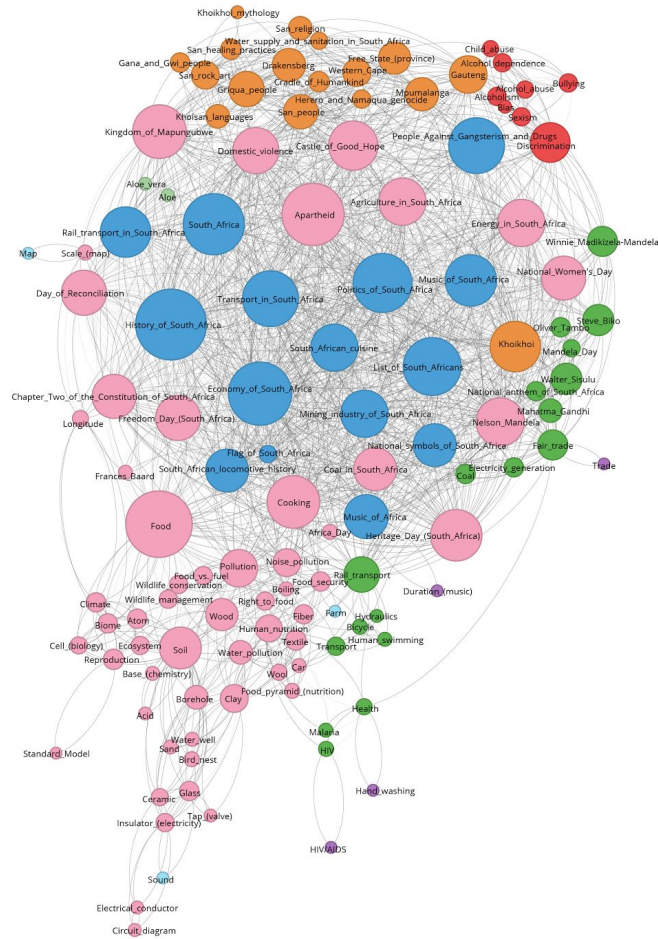
2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014



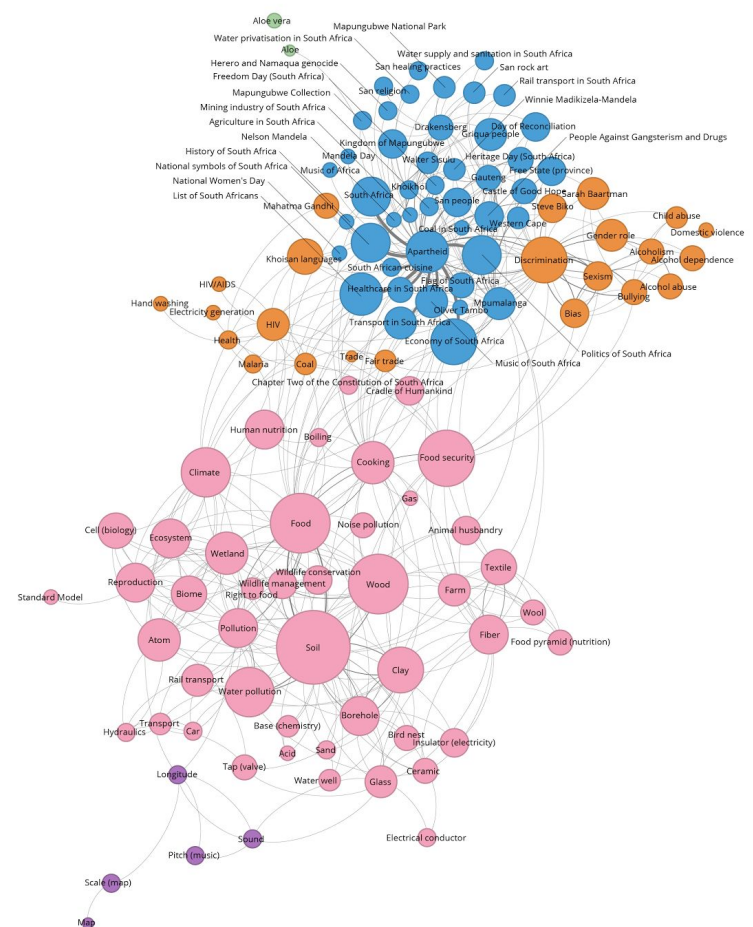
Visualisation - <http://bit.ly/WPS-evaluation>



August 2015

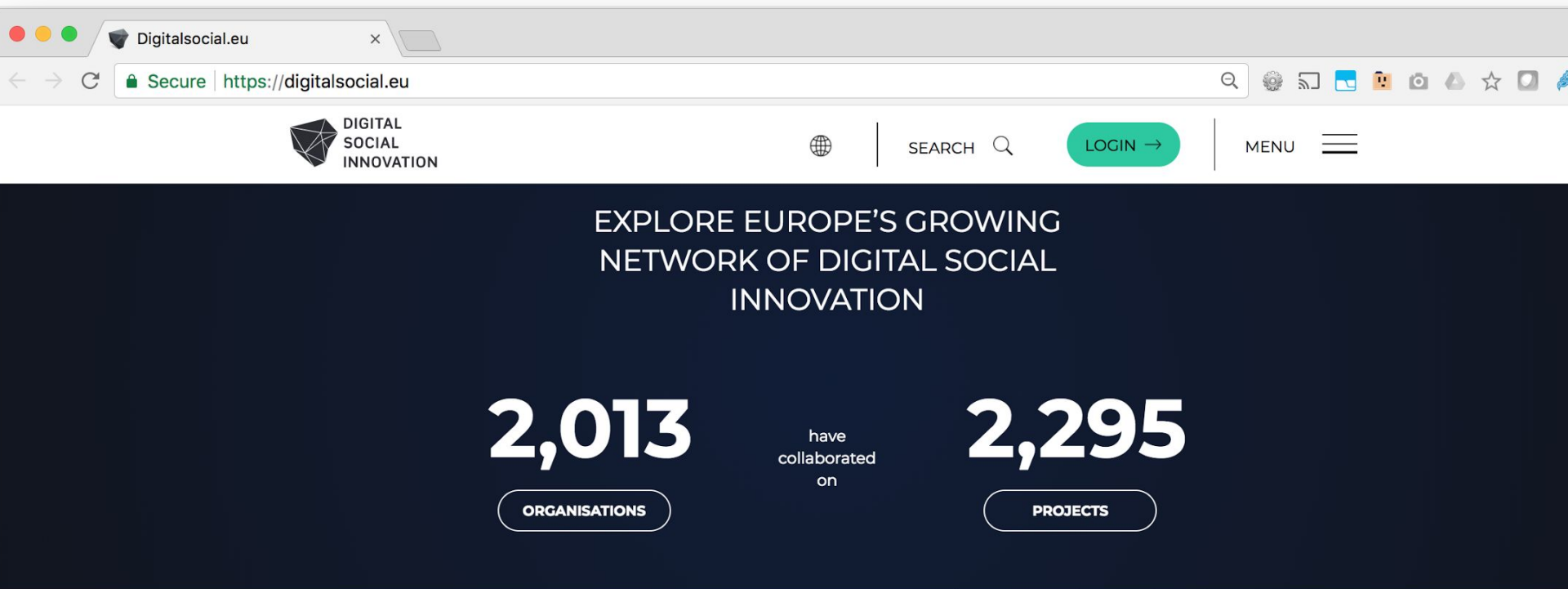


August 2017



Visualisation - <http://bit.ly/WPS-evaluation>

Open communities #03: Digital social innovators

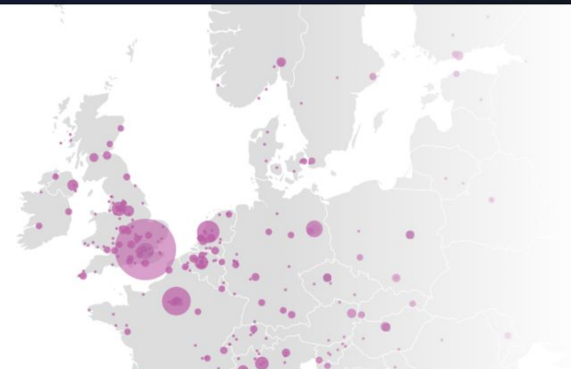


DATA VISUALISATION

EXPLORE EUROPE'S NETWORK OF DIGITAL SOCIAL INNOVATION

There are 2013 organisations and 2295 projects working on DSI across Europe.

With our interactive data visualisation, you can explore the organisations and projects working on DSI across Europe. Check it out now to understand what's going on across the continent and



The project DSI4EU promotes projects and organisations across Europe who are using digital technologies to tackle social challenges. Started in 2012, DSI4EU aimed to support the growth of this network by providing resources and training for their sustainable scalability.

<https://digitalsocial.eu/>



**DIGITAL
SOCIAL
INNOVATION**



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688192

Introduction

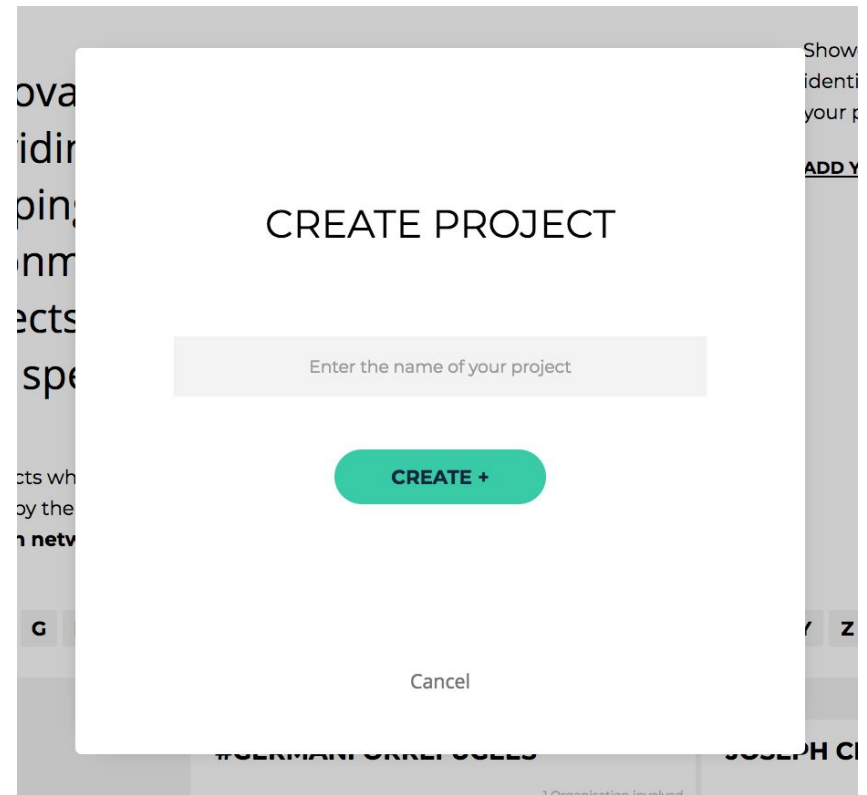
The data are collected from the <http://digitalsocial.eu> platform that requires organisations, projects and individuals to sign up and share specific information about their activities.

The methodology used is the crowdsourcing: the database grows thanks to the registrations from the organisations and projects.

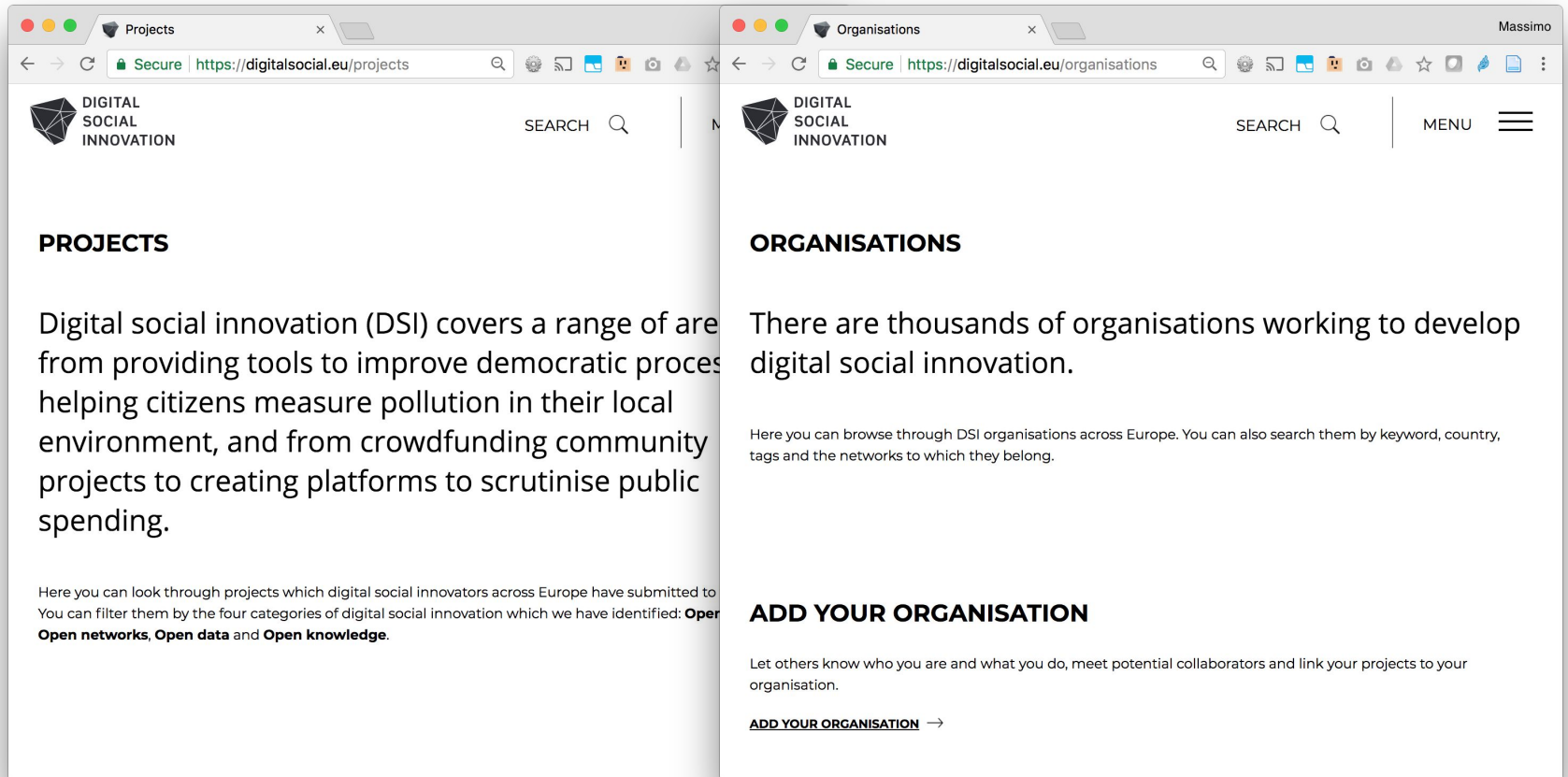
The visualisation is based on a main interactive map representing the quantity of projects and organisation in a country. The projects are also visualised by sector (education, health, etc).

A secondary visualisation is the network visualisation showing the relations among the organisations and the projects.

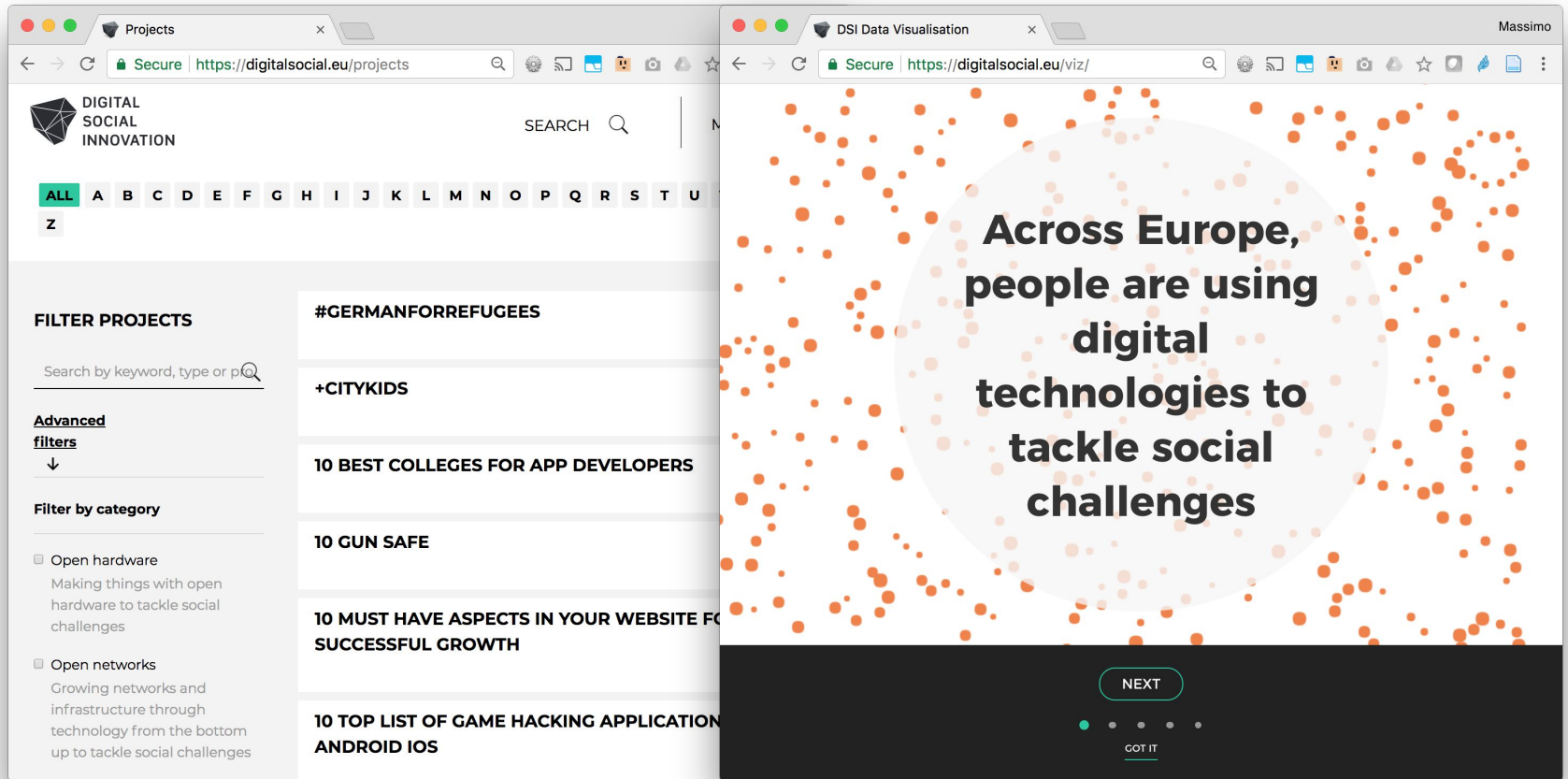
Methodology



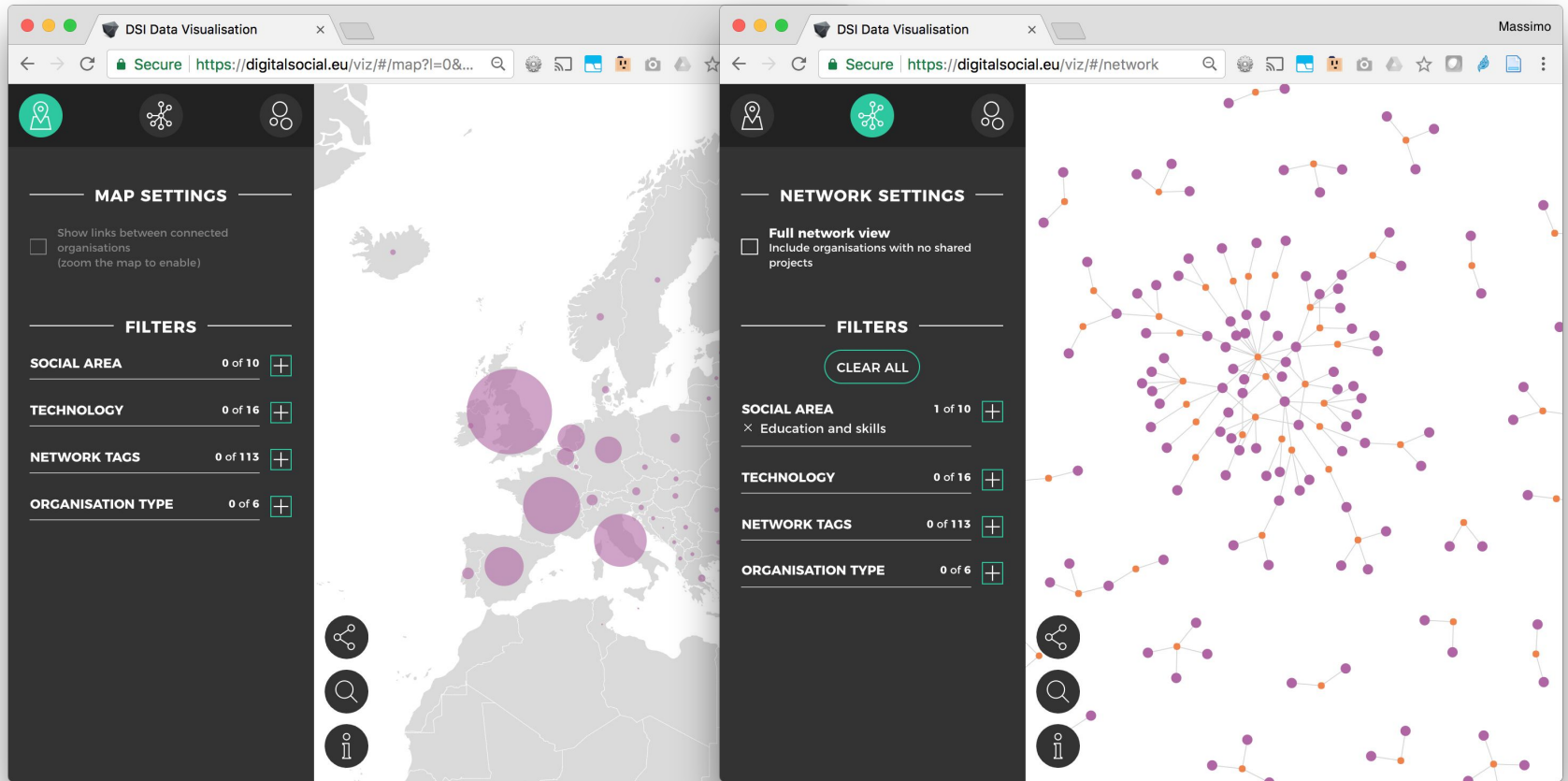
The screenshot shows a modal window titled "CREATE PROJECT". Inside the modal, there is a text input field with the placeholder text "Enter the name of your project". Below the input field is a prominent teal button with the text "CREATE +". At the bottom of the modal, there is a "Cancel" link. The background of the page is a light gray and contains some partially visible text from other parts of the website, such as "ova", "idir", "pin", "nm", "ects", "spe", "cts wh", "by the", "n netv", "G", "Z", "Show", "identi", "your p", "ADD Y", "GERMAN", "ERRE", "COLE", "JOSEPH C", and "1 Organisation involved".



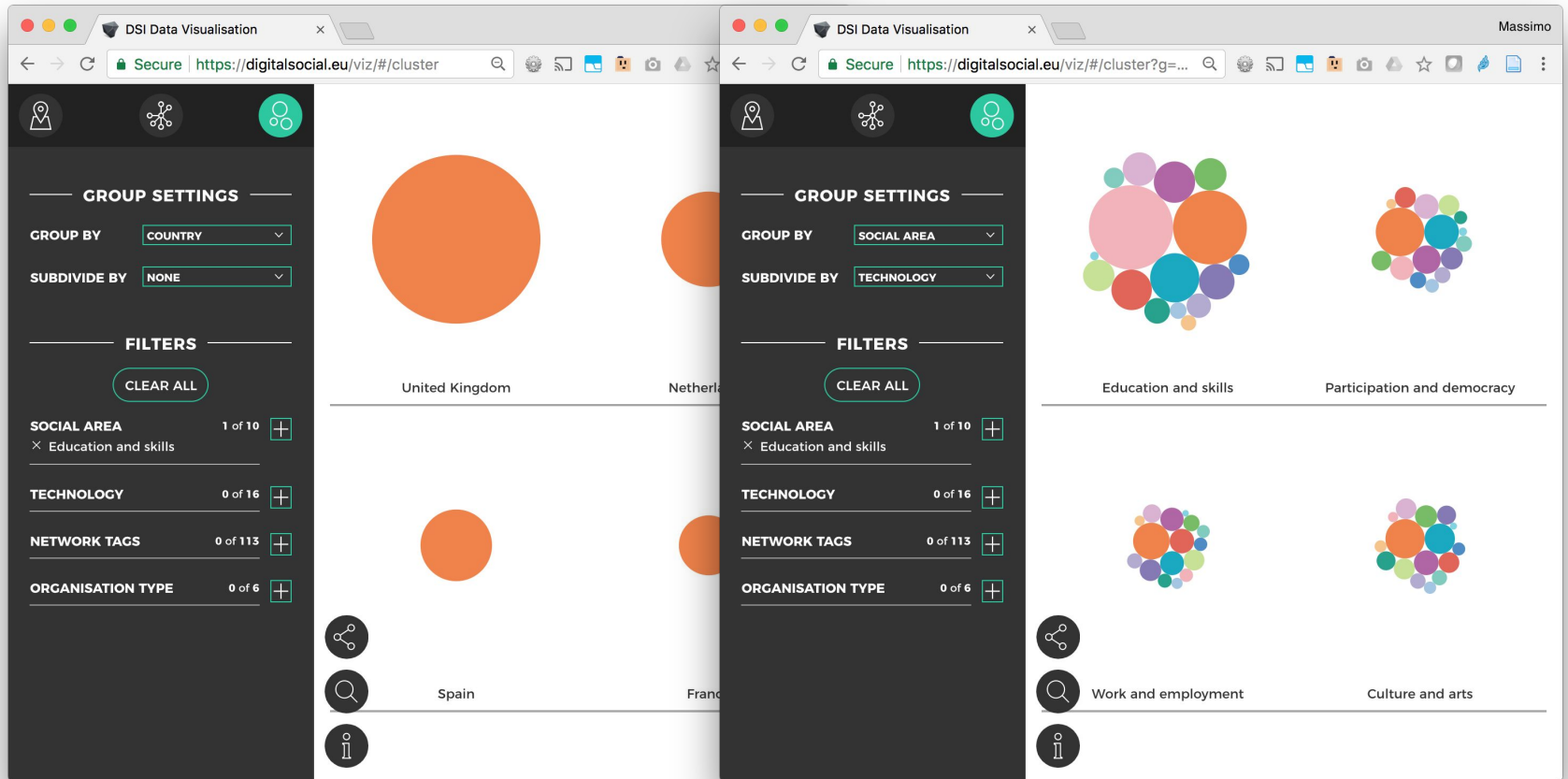
Visualisation - <https://digitalsocial.eu/viz/>



Visualisation - <https://digitalsocial.eu/viz/>



Visualisation - <https://digitalsocial.eu/viz/>



Visualisation - <https://digitalsocial.eu/viz/>

Discussion

8. Abstr (max. 900 words with references)

Current amount: 892 words

Introduction to open communities / movements [to be removed] [170 words]

One of the most interesting and promising phenomena of the last years is the emergence of social innovation initiatives, a loose and world-wide movement of people, projects and organisations that are addressing social challenges in fields like healthcare, education, employment, democratic participation, migration and the environment. These initiatives have been developed with multiple approaches, structures, goals and cultures rather than a one-size-fits-all modality. Within this article, we especially consider to be very promising those initiatives that are based around communities that adopts digital platforms, develop digital solutions and are open in their processes and results. The introduction of digital technologies in the past decades has brought several new phenomena, including digital social innovation initiatives, and it has influenced several factors of social, political and

economical life. While the enthusiasms in the positive influence of digital technologies on society has been greatly reduced in the past years, the hopes in digital social innovation initiatives are still high especially thanks to their ability to scale up and engage people in their

Version history

Total: 1 edit

Only show named versions

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► November 22, 7:22 PM

Current version

Massimo Menichinelli

► November 22, 6:23 PM

Giovanni Profeta

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Monday

► November 20, 4:47 PM

Massimo Menichinelli

Giovanni Profeta

October

► October 24, 4:36 PM

Massimo Menichinelli

► October 19, 7:41 AM

Massimo Menichinelli

► October 18, 2:15 PM

Massimo Menichinelli

► October 18, 10:06 AM

Serena Cangiano

☒ Show changes

	Case 1: Makers	Case 2: Wikipedians	Case 3: DSI
Dimensions			
<i>Geographic</i>	X		X
<i>Network</i>	WIP	X	X
<i>Time</i>		X	
Focus			
<i>Impact</i>	X		
<i>Processes</i>	WIP	X	
<i>Size and distribution</i>			X
Strategy			
<i>Data source</i>	External, explored	External, analysed	Own
<i>Scale</i>	Global, selected cities and regions	Global, online	Europe
<i>Approach</i>	Research through design, Exploratory Simulation	Data-driven analysis	Crowdsourcing mapping

Comparison

- Manage and visualise **ambiguity** of cases that can be hardly checked in a coherent way since they are **distributed**.
- Manage and visualise **missing** or not completely **coherent datasets**.
- Manage and visualise **user participation** in providing datasets, and the consequent **quality issues**.
- Define metrics in collaboration with **domain experts**.
- Integrate **multiple perspectives** with different visualisations instead of one single visualisation.
- Develop **simple visualisations and models** instead of complex ones, but able to **evolve**.
- Add in-depth **textual explanations** to main (complex) concepts.
- Provide a global and comprehensive **overview**, but ability to focus on **individual elements**.
- Start with **exploratory** analysis with available datasets, **refine** and then **test** with users.
- Aim at datasets and models that can **compare** cases.

Guidelines

Conclusions

2LO (22.11.2017)
15 MIN + 5 DOMANDE

M - INTRO
H - MAKE
9 - WIKIPEDIA
H - DISCUSSIONS
9 - CONCLUSIONS

3 MIN
CIASCUN
PUNTO

Info da Serena
→ Leggi paper Meridionelli
(l'ultimo che ha mandato)
→ Rileggi progetto WPS (report Firenze)
scopo (x docenti)

[NOTE]
[4] nome progetto, da chi è stato completato, chi l'ha finanziato,
- per intro generale: perché è importante visualizzare per noi.
- le immagini devono essere funzionali al discorso
- ma progetto: intro, metodo, cose che è stato fatto (in termini
di linee guida), OTTENIMENTO DATI
- limiti, potenzialità visualizz. linee guida comuni

[CONTENUTI] WPS
- imp: intro + 3 immagini

[4] TIPOLOGIA [2] FEAT [13]

Case 1 - Makers:

- **Missing datasets** regarding cities and regions (resilience/wellbeing and how to impact it).
- Missing datasets regarding Maker initiatives (impact over resilience/wellbeing).
- Rough **model of impact to be improved**.

Case 2 - Wikipedians:

- **Continuous evolution** of Wikipedia content and structure.
- **Missing** worldwide recognized **metrics**.

Case 3 - DSI:

- **Difficulty to evaluate the impact** of each organisation because the number of projects cannot demonstrate their effectiveness.
- **Difficulty to compare** amongst the organisations and projects.

Limitations

Case 1 - Makers:

- **Develop a model of impact of Maker initiatives** over cities and regions based on easily accessible and scalable datasets, and develop tools accordingly.
- Integrate with analysis and visualisation of processes.
- **Test with stakeholders** (quadruple helix) and domain experts.

Case 2 - Wikipedians:

- **Apply the research approach to other countries** and education systems.
- Foster the Wikipedia community to adopt visual models to evaluate articles.

Case 3 - DSI:

- **Visualise** qualitative data regarding **the sustainable scalability of the projects**.
- Test with stakeholders (quadruple helix) and domain experts.

General future research:

- **Develop a coherent framework for** understanding and visualising **open communities** by integrating the three perspectives.

Future research

Thank you.

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