Data Justice in Achieving SDG#16

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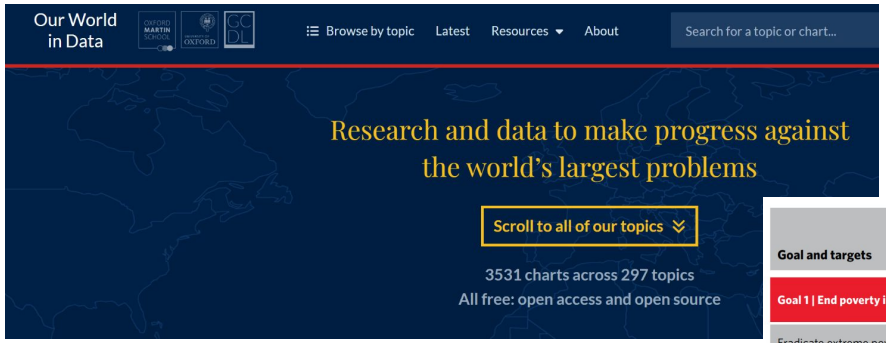
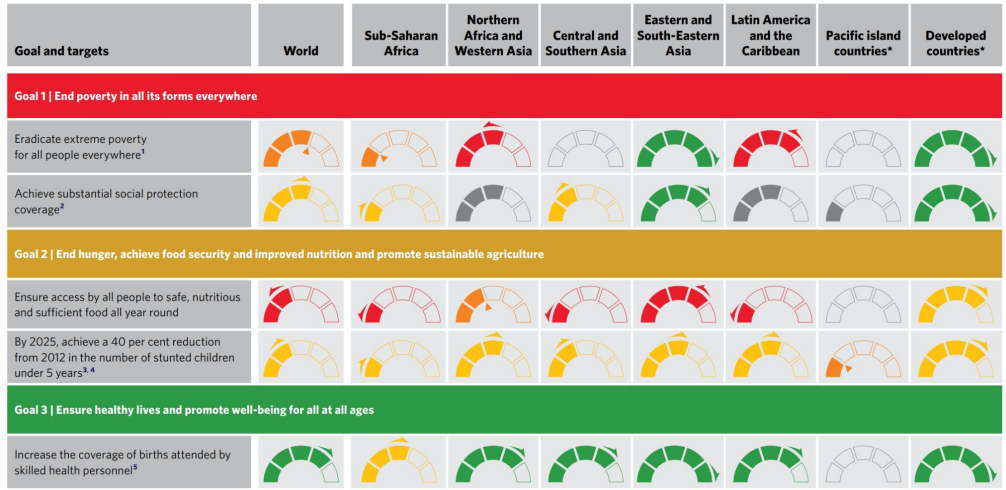
Sustainable Development Goals

"… targets for global development adopted in September 2015, set to be achieved by 2030. All countries of the world have agreed to work towards achieving these goals."

Data is essential to both delivery and measurement of the SDGs

The 17 Sustainable Development Goals are defined in a list of 169 SDG Targets. Progress towards these Targets is agreed to be tracked by 232 unique Indicators.





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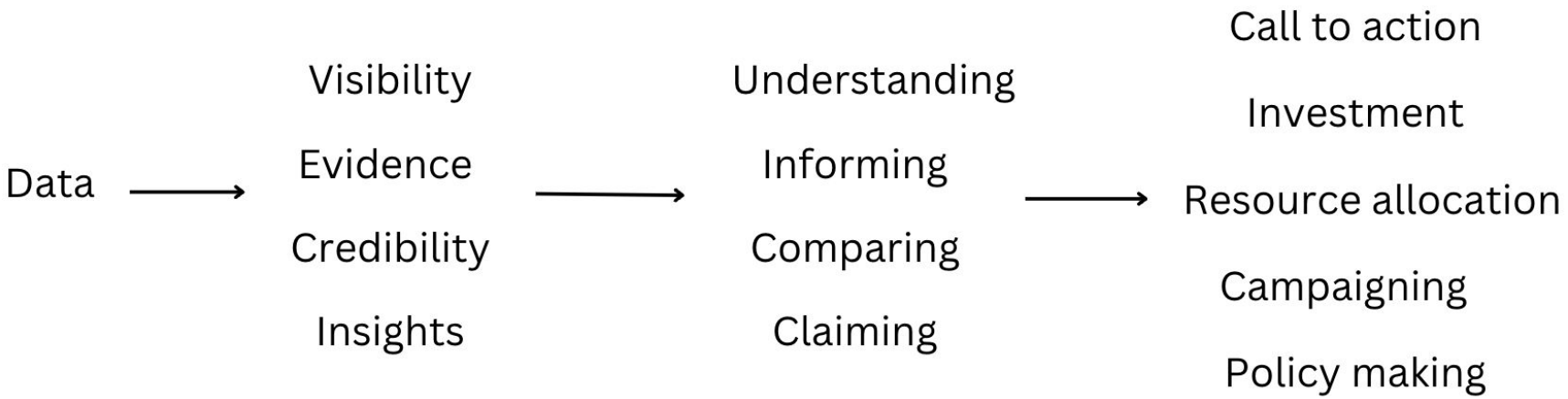

Data
Visibility
Evidence
Credibility
Insights
Understanding
Informing
Comparing
Claiming
Call to action
Investment
Resource allocation
Campaigning
Policy making

SDG #16

https://sdgs.un.org/goals/goal16

Indicators

16.1 Significantly reduce all forms of violence and related death rates everywhere

16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children

16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all

16.4 By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime

16.5 Substantially reduce corruption and bribery in all their forms

16.6 Develop effective, accountable and transparent institutions at all levels

16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels

16.8 Broaden and strengthen the participation of developing countries in the institutions of global governance

16.9 By 2030, provide legal identity for all, including birth registration

16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements

16.A Strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries, to prevent violence and combat terrorism and crime

16.B Promote and enforce non-discriminatory laws and policies for sustainable development

https://sdgs.un.org/goals/goal16

Justice Data for SDG#16

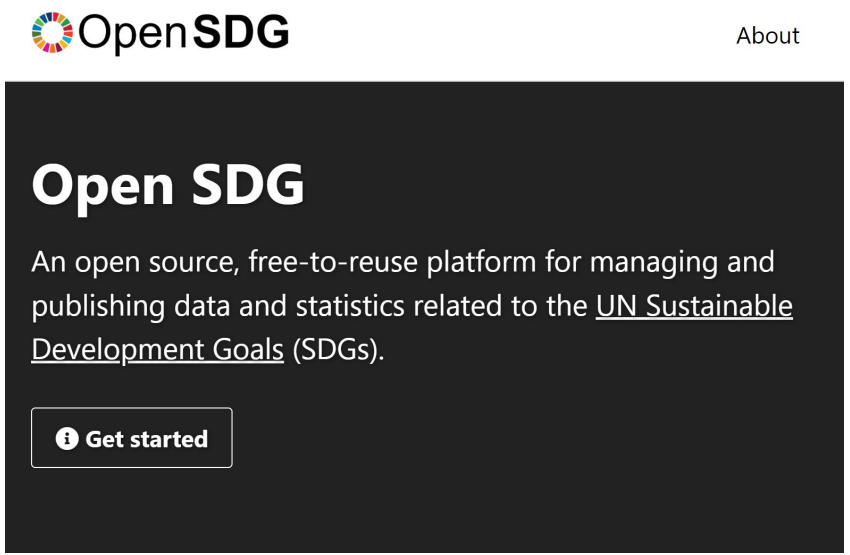
Facts and figures | Goal 16 targets | Links

- As of May 2022, the number of people forced to flee conflict, violence, human rights violations and persecution had surpassed 100 million.
- In 2021 alone, 320 fatal attacks against human rights defenders, journalists and trade unionists were recorded in 35 countries.
- At least 13,842 deaths were associated with 12 of the world's deadliest armed conflicts in 2021, including 11,075 civilians. However, civilian deaths dropped by 17 per cent from 2020, and by 69 per cent from 2015.
- Over the last decade, the world has spent $349 billion on peacekeeping, humanitarian relief and refugee support.
- Between 2016 and 2020, 28 per cent of seized weapons were reported as successfully traced. From 2018 to 2019, national authorities destroyed 48 per cent of weapons seized, found or surrendered.
- Between 2015 and 2020, the global homicide rate declined by 5.2 per cent – from 5.9 to 5.6 homicides per 100,000 people. Globally, 8 out of 10 recorded homicide victims are male.
- Women and girls comprise about 60 per cent of all homicide victims killed by intimate partners or family members.
- By 2030, the global homicide rate is projected to decrease by 19 per cent from the 2015 level, to around 4.8 per 100,000 people, but still short of the "significant reduction" targeted in the SDGs.
- Globally, almost 1 in 6 businesses face requests for bribe payments by public officials. Source: The Sustainable Development Goals Report 2022

Source: **The Sustainable Development Goals Report 2022**

https://sdgs.un.org/goals/goal16 &
https://www.un.org/sustainabledevelopment/peace-justice/

Various Data Initiatives



https://www.sdg16.org/ & https://open-sdg.org/

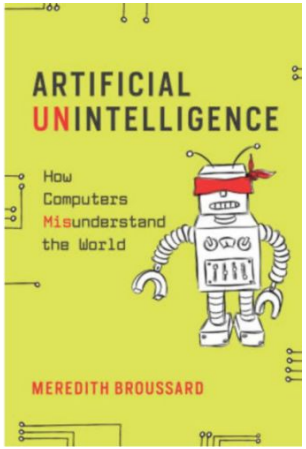
Data ≠ Neutral or Objective

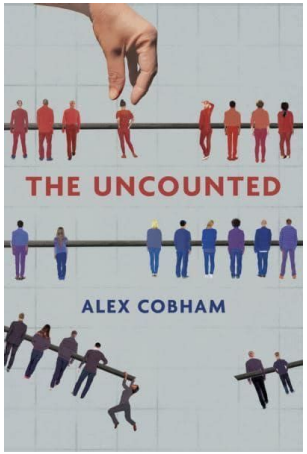
"What counts as data depends on who uses them, how, and for which purposes. … Data are product of any activity that is collected, stored, and disseminated in order to be used as ***evidence for knowledge claims"***

S. Leonelli, Data-Centric Biology: A Philosophical Study (2016)

"At its core, all data is dirty. This is true because not all factors being input can be properly quantified, data is often missing, and even existing ***data is socially constructed"***

Meredith Broussard, Artificial Unintelligence: How Computers Misunderstand the World (2019)





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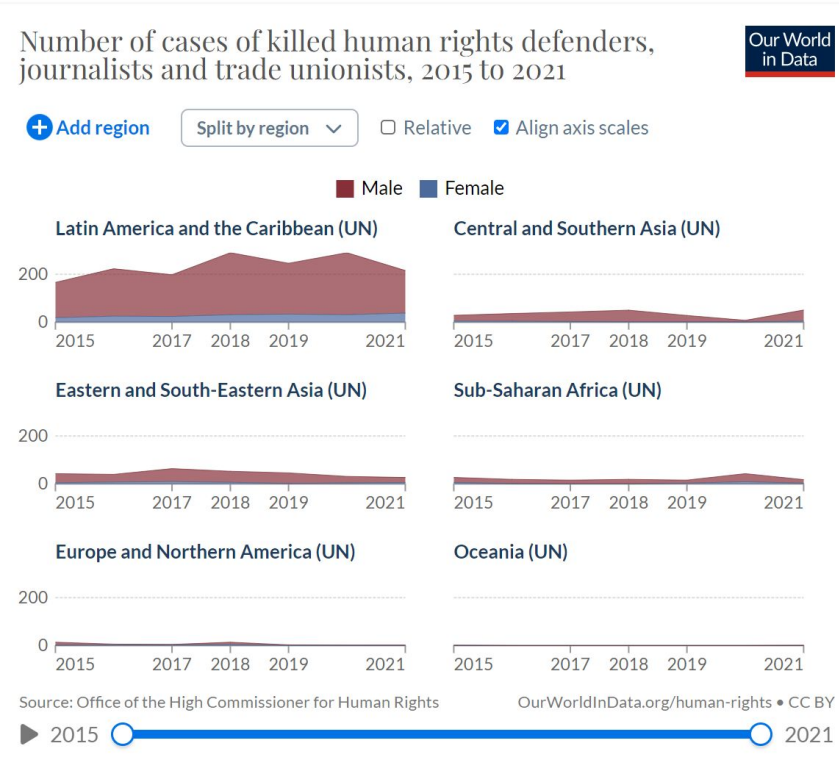

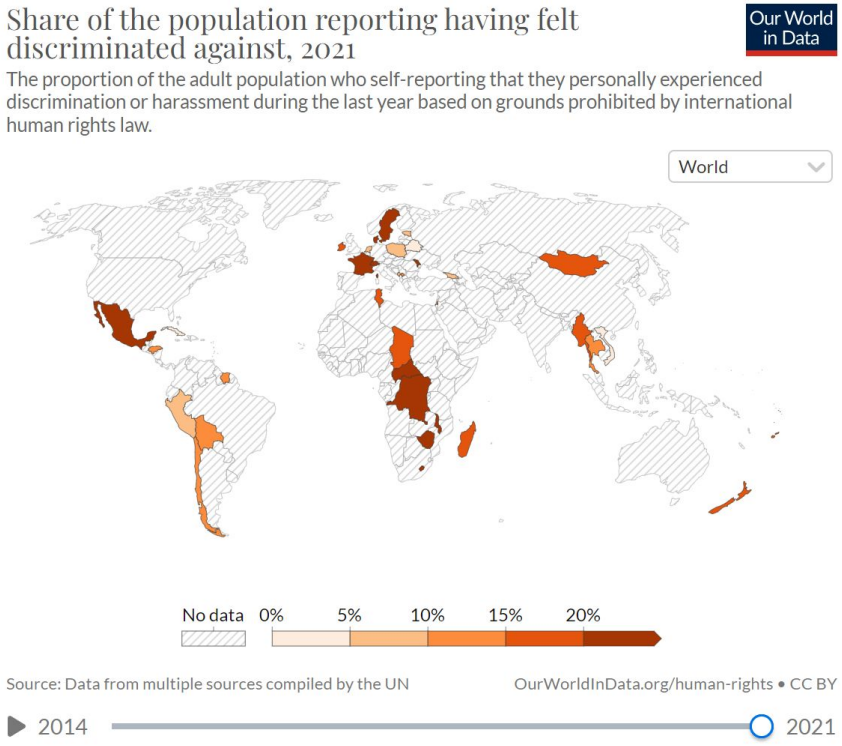

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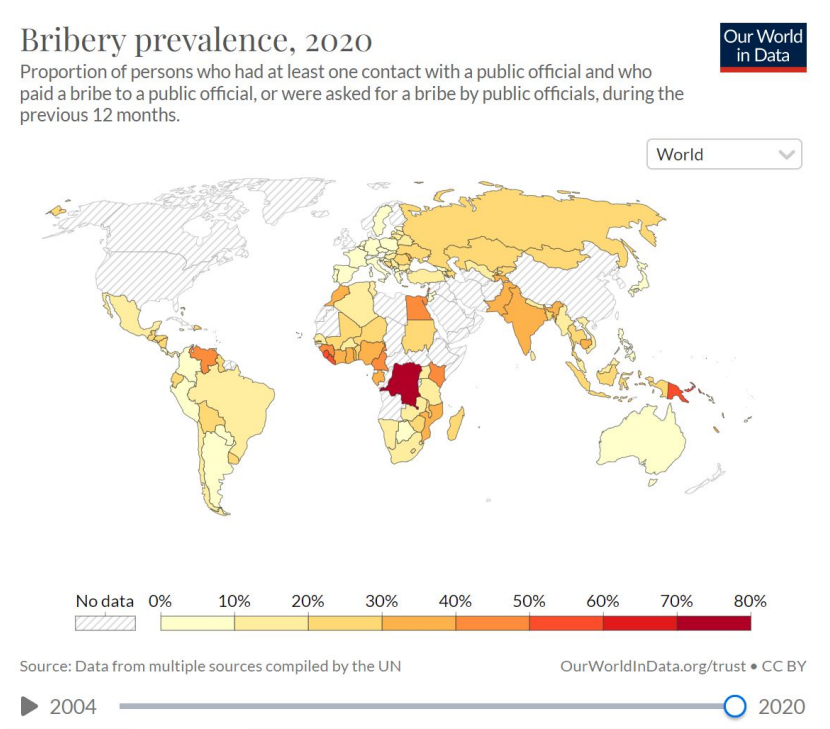
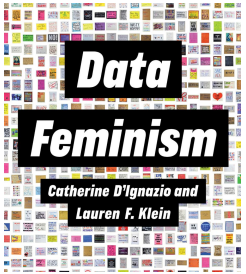
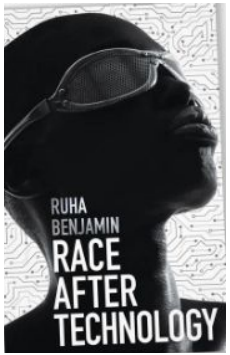


https://ourworldindata.org/

Acknowledging what goes missing between data & reality

- Access issues for hardware and internet
- Human right violations in digital spaces
- Extractive data collection
- Inaccurate categorization and misrepresentation
- Infrastructural and procedural issues
- Data governance problems
- Nontransparent data processing
- Social and political context





Data Justice as a critical lens

“Fairness in the way people are made visible, represented and treated as a result of their production of digital data.”

Taylor, L. (2017), What is data justice? The case for connecting digital rights and freedoms globally

Five dimensions of data justice:

1- Procedural: fairness in the way in which data is handled.

2- Instrumental: fairness in the results of data being used.

3- Rights-based: adherence to basic data rights such as representation, privacy, access and ownership.

4- Structural: the degree to which the interests and power in wider society support fair outcomes in other forms of data justice.

5-Distributive: an overarching dimension relating to the (in)equality of data-related outcomes that can be applied to each of the other dimensions of data justice.

Heeks & Shekar (2019), Datafication, development and marginalised urban communities: an applied data justice framework

What does it mean in practice?

We need to recognize that factors such as

- how and why data are collected
- what are its gaps and limitations
- how identity and representation is fractured and flattened
- embedded assumptions and biases

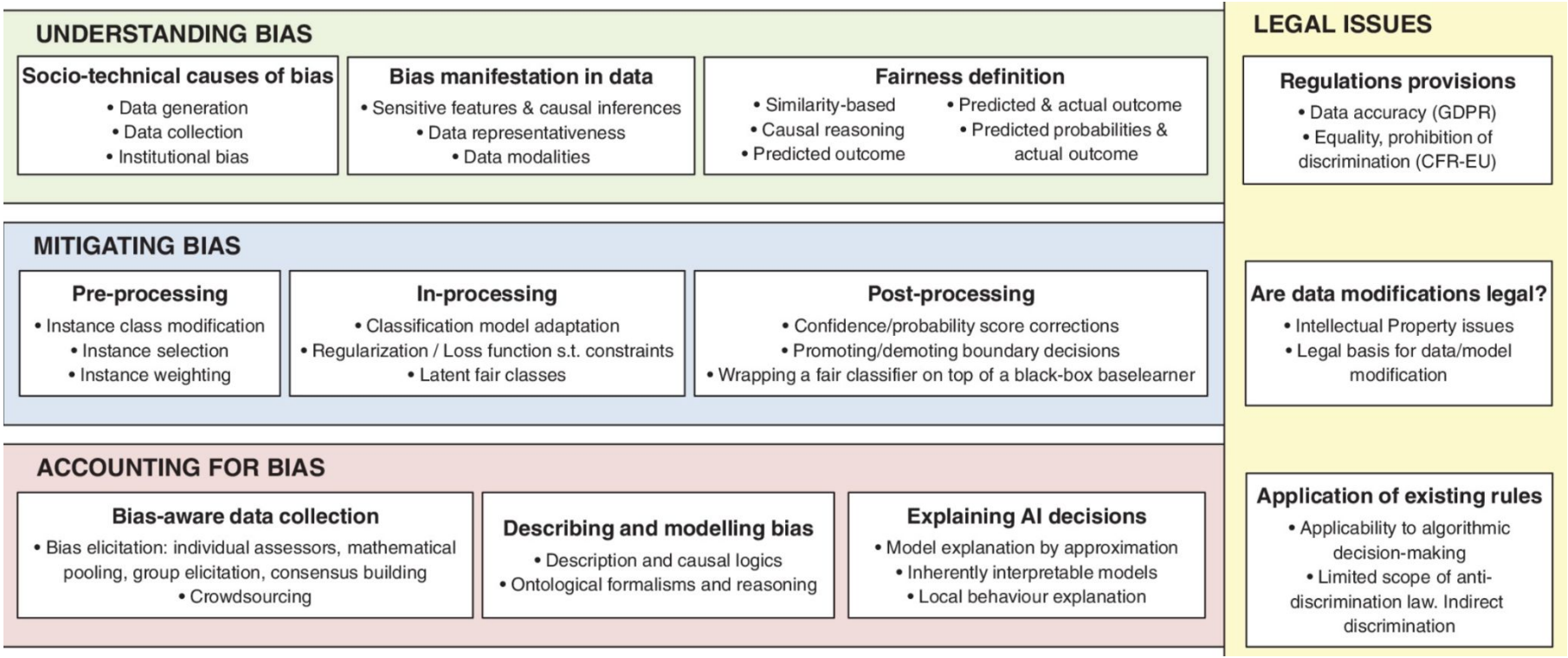
have profound impacts on how we perceive information and how we shape our actions in decision-making.

From *Context-Aware Systems* by Civic Software Foundation

- **Motivation**
- **Composition**
- **Key Resources and Collection Process**
- **Resource pre-processing/cleaning/labeling**
- **Access and Use**
- **Distribution and Impact**
- **Maintenance**
- **User/ Constituent engagement**
- **Accountability**

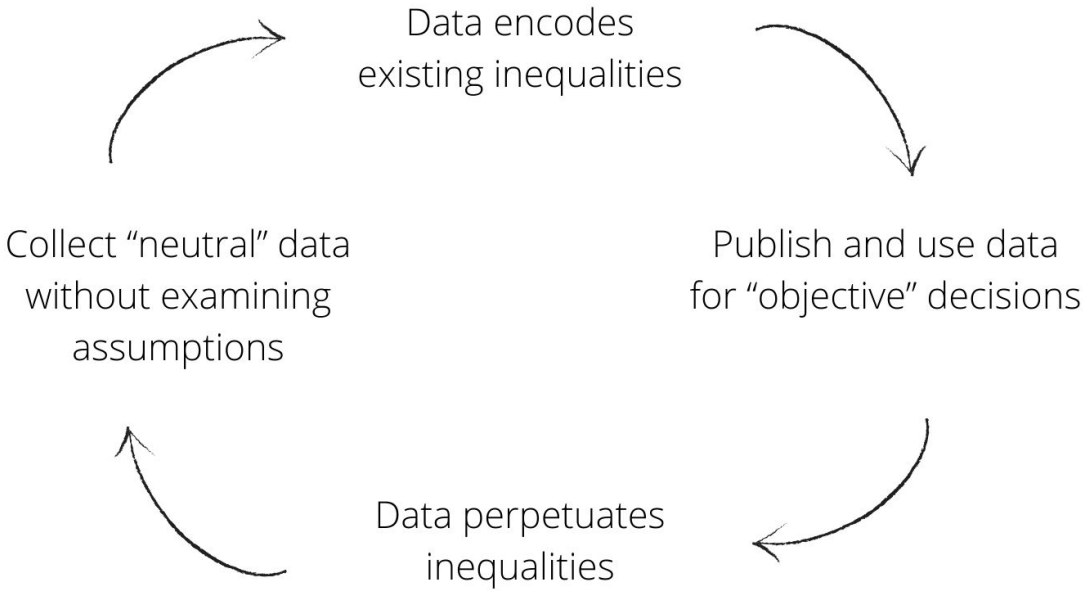
This outline is Informed by Data Sheets for Datasets & Data Feminism

Why does it matter?



Bias in data-driven artificial intelligence systems—An introductory survey (2020)
https://wires.onlinelibrary.wiley.com/doi/full/10.1002/widm.1356

Why does it matter?



Young Justice Leaders - Call to Action

We call for critical examination of data's role, and commit to investigating its gaps and limitations, building accountability in data collection and use, and promoting data justice within SDG#16.

https://www.justice.sdg16.plus/youngjusticeleaders

Key Questions and Discussion

- How can we create a critical discourse around the role of digital technologies in creating peaceful and inclusive societies?
- How can the limitations of existing datasets be acknowledged and communicated?
- How can data justice become a key highlight in discussions around SDG#16?
- How can we consider data justice as an integral part of technology development (especially innovation around justice systems)?

Share your thoughts on the topic & get in touch!

https://tinyurl.com/datajustice16

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Data Justice in participatory projects

Gefion Thuermer

MyData Conference, Helsinki, 31st May 2023

1

Those who contribute data rarely get sufficient recognition or benefit from that contribution.

2

If we want to change how benefits from data are distributed, we need to change how we work with data.

3

We need to plan benefits from data alongside the entire data lifecycle early on to help benefits for data contributors materialise.

data-pitch

INNOVATION PROGRAMME

SCIFI

Smart City Innovation

Interreg

UNION EUROPÉENNE

2 Seas Mers Zeeën

European Regional Development Fund

IMPETUS

Data Justice Plan

Data that is collected by and with citizens should benefit the community that they come from.

Think about how you can ensure that this happens for your project data.

- Who will contribute data to your project, and why?
- How will they benefit from what you plan to do with the data?
- How will this benefit materialize?
- Who will be responsible for making this happen?
- What will happen if the project does not go to plan – what can participating communities benefit from partial results, or what additional results might become available?
- Who else will benefit from the data and how?

Thank you

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Data Justice in Participatory Projects

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CeADAR
Ireland's Centre for Applied AI

CeADAR
Ireland's Centre for Applied AI

This is me
and my data
ŌURA
Readiness Score
Activity Score
Last 3 weeks
94
Avg. this week

Justice means...

- **Trustworthiness**
- **F**indable, **A**ccessible, **I**nteroperable, **R**eusable **data** and **FAIR** compensation for data owners
- **Responsible data operations** (low environmental footprint)

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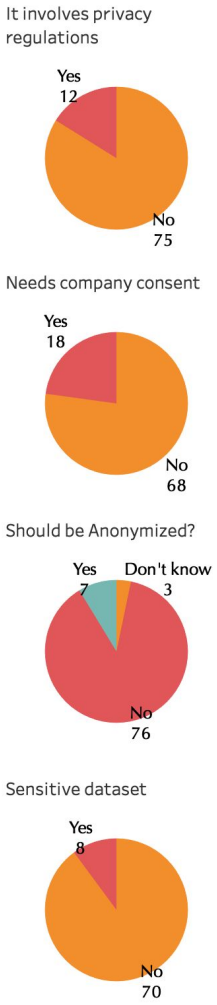
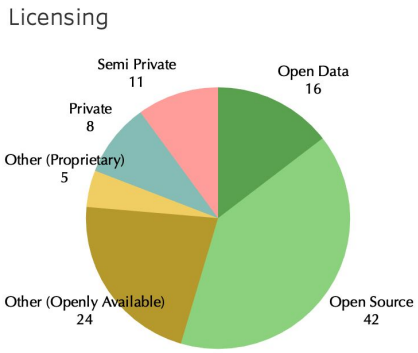
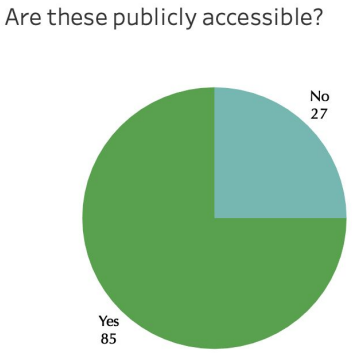
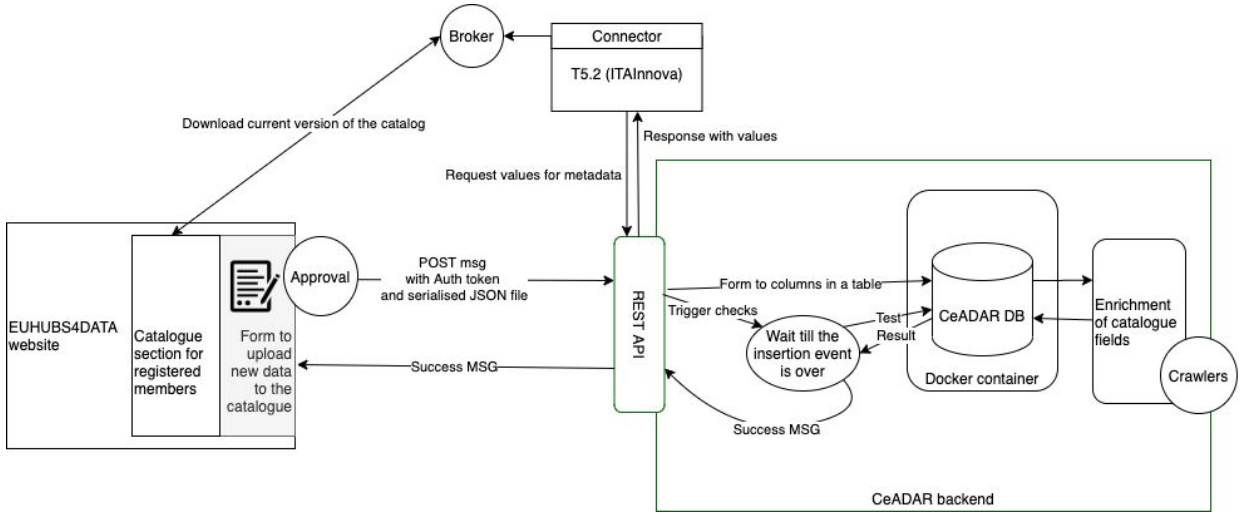
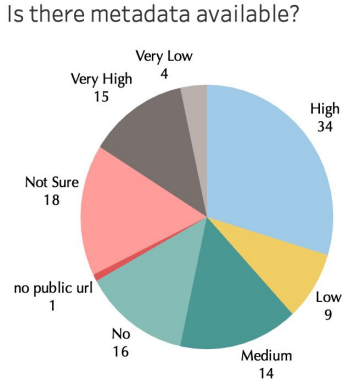
Data justice in practice: The EUHUBS4DATA Catalogue

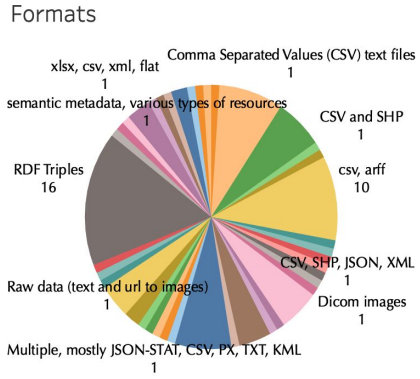












https://euhubs4data.eu/datasets/

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Data justice in practice: UPCAST PROJECT

CeADAR
Ireland's Centre for Applied AI

UPCAST – Universal Platform Components for Safe Fair Interoperable Data Exchange, Monetisation and Trading

UPCAST provides a set of universal, trustworthy, transparent and user-friendly data market plugins for the automation of data sharing and processing agreements between businesses, public administrations and citizens. Our plugins will enable actors in the common European data spaces to design and deploy data exchange and trading operations guaranteeing:

(i) automatic negotiation of agreement terms,
(ii) dynamic fair pricing,
(ii) improved data-asset discovery,
(iii) privacy, commercial and administrative confidentiality requirements,
(iv) low environmental footprint, as well as ensuring compliance with
(v) relevant legislation and
(vi) ethical and responsibility guidelines.

UPCAST will support the deployment of Common European data spaces by consolidating and acting upon mature research in the areas of data management, privacy, monetisation, exchange and automated negotiation, considering efficiency for the environment as well as compliance with EU and national initiatives, AI regulations and ethical procedures. Four real-world pilots across Europe will operationalise a set of working platform plugins for data sharing, monetisation and trading, deployable across a variety of different data marketplaces and platforms, ensuring digital autonomy of data providers, brokers, users and data subjects, and enabling interoperability within European data spaces. UPCAST aims at engaging SMEs, administrations and citizens by providing a transferability framework, best practices and training to endow users in order to deploy the new technologies and maximise impact of the project

This project has received funding from the European Union's Horizon Research and Innovation Actions under Grant Agreement № 101093216.

UPCAST Consortium

UPCAST PROJECT

IDC

University of Southampton

CeADAR
Ireland's Centre for Applied AI

ICT abov
Information & Communication Tech

GRUPPO Maggioli

Major Development Agency Thessaloniki S.A.

GR OPEN KNOWLEDGE GREECE

KU LEUVEN CiTiP
CENTRE FOR IT & IP LAW

SINTEF

JOT INTERNET MEDIA

NOKIA

Insightful Analytics LS TECH

Nissatech innovation centre

ΕΘΝΙΚΟ ΙΔΡΥΜΑ ΕΡΕΥΝΩΝ
National Hellenic Research Foundation

.Cactus
DIGITAL GROWTH

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UPCAST PROJECT CeADAR

CeADAR Ireland's Centre for Applied AI

UCD DUBLIN

CeADAR is the European Digital Innovation Hub for Applied AI in Ireland. Our mission is to create value, build capability & deliver sustainable competitive advantage to companies through the application and adoption of AI, machine learning and data analytics.

CeADAR is WP2 leader, responsible for the Energy Efficiency Optimisation (Environmental) Module and Transferability and Training. CeADAR contributes with their expertise in AI to the Valuation and Smart Contracts developments.

BDV i-Space GOLD EDIH Digital Innovation HUB AI DIH network

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This project has received funding from the European Union's Horizon Research and Innovation Actions under Grant Agreement № 101093216.

https://ceadar.ie/

MyData CONFERENCE 2023

Data Justice in participatory projects

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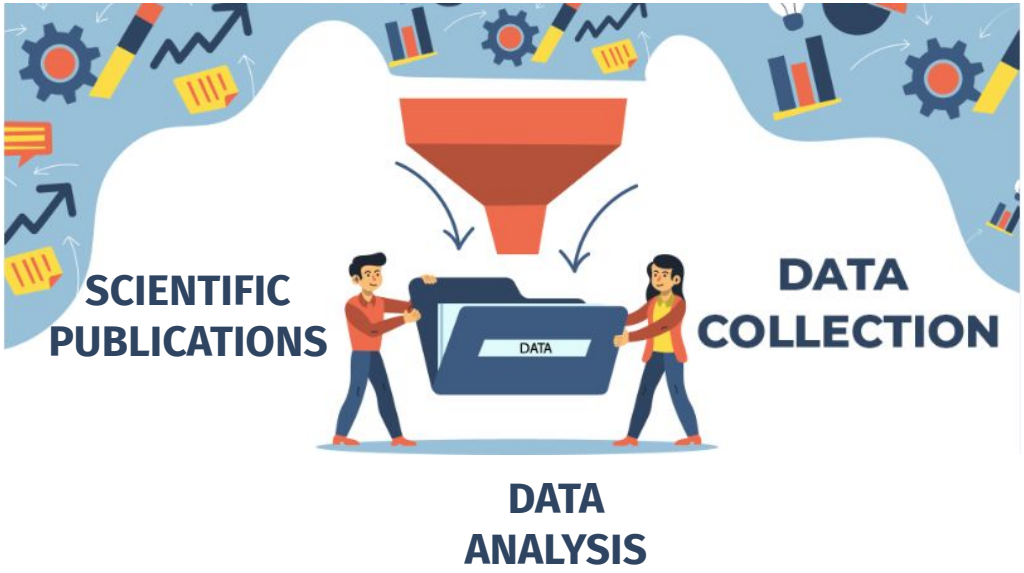
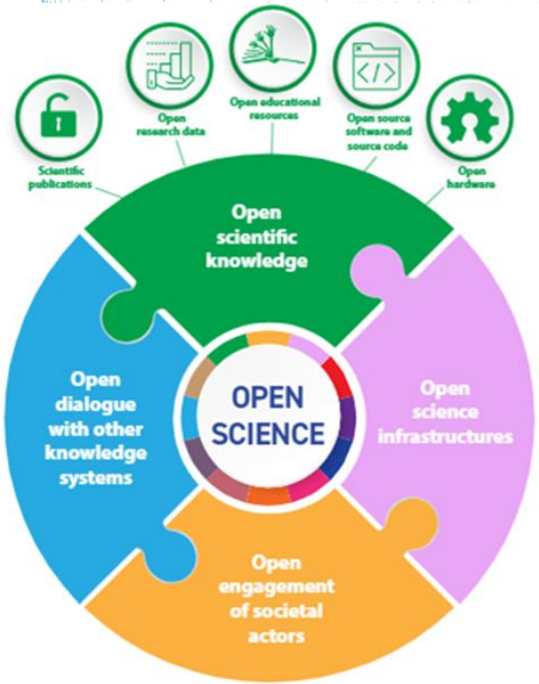
Citizens as data collectors and beyond



Source: Geeks for Geeks

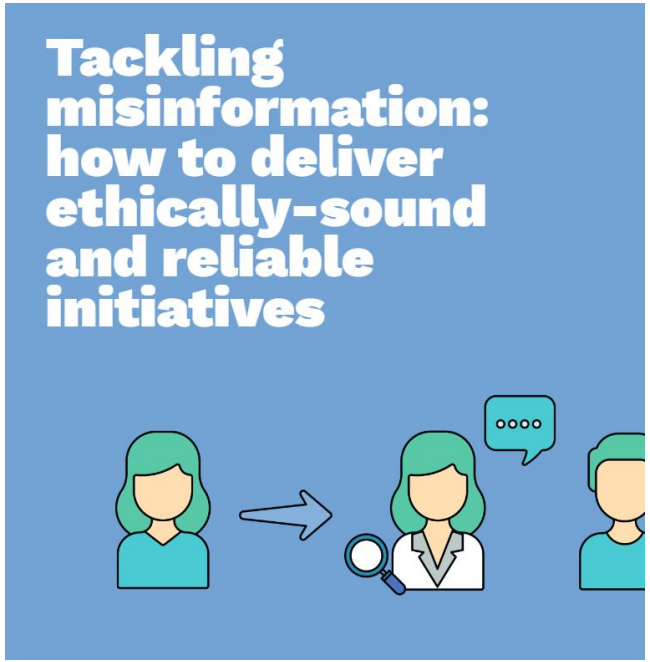


Source: UNESCO

Citizens as primary source of information

Source: Acadium

Citizens as tacklers of misinformation



Adopt good practices

Hold meetings on research results aimed at different audiences

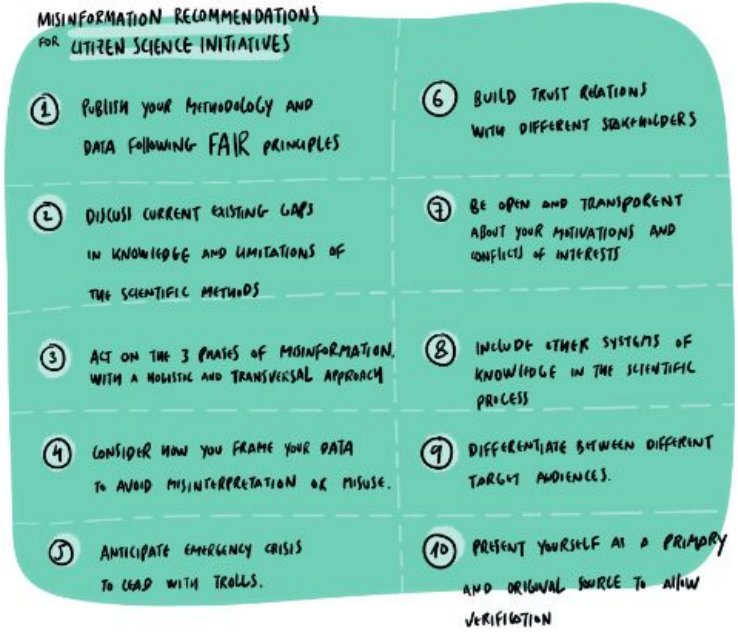
Create specific material for journalists

Use an inclusive language

Facilitate accessibility: publish in open access press, include subtitles, audio description, captions and easy reading

Make explicit the role of the specific groups, including participation lists (prior consent)

Promote the visibility and fair recognition of participants



3 phases of misinformation: production, dissemination and consumption

Source: Magalhães, et al., 2023

Citizen science journalism

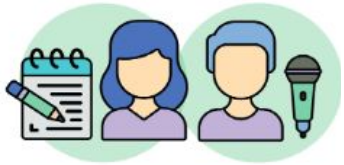
Citizen science journalism combines citizen-generated data and engaging methodologies with the narrative power and investigative process of data journalism. This translates into a stronger opportunity to empower new forms of engagement, active participation, and dialogue over the significance of data, the way scientific knowledge is produced and validated, and ultimately the civic and ethical responsibilities of science agents and the choices the whole society makes on the basis of it.

Cooperating in the definition of citizens' information needs and designing proper sets of data collection in a participatory and transparent way can contribute to the use of those data to empower change for the benefit of local communities and advocate for democracy.

Source: Tola et al., 2023

Citizen science journalism

KNOW THE MEDIA SYSTEM



FRAME YOUR STORY

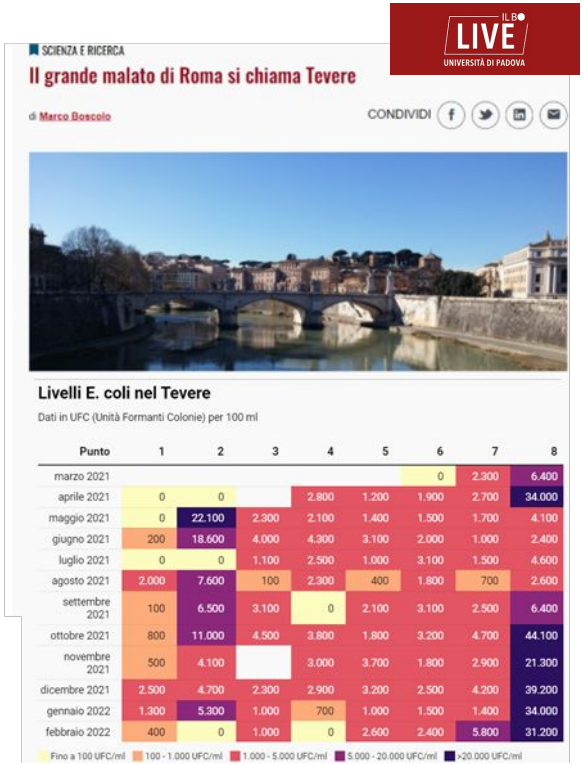
DATA BIAS AND VISUALISATION

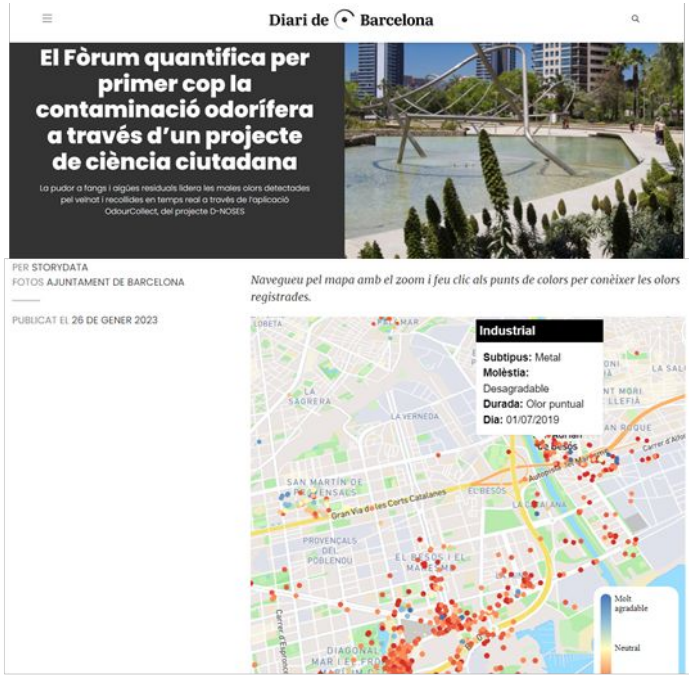
#DATA4CitSciNews

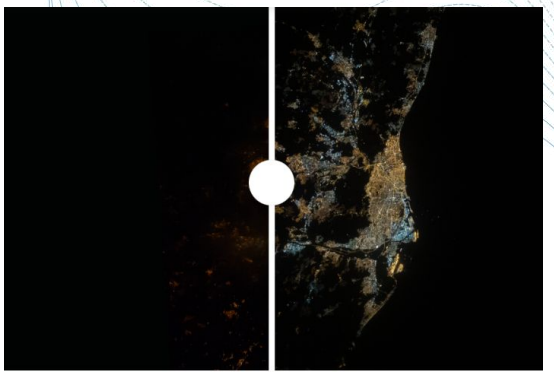
12. The co-production of a journalistic story is a challenge worthy to be undertaken. Being able not to merely exchange information but to work together in selecting data, the pieces of relevant content, the angle to use, the preferred format and the audience to talk to, might prove a winning strategy to give proper recognition to all the expertise involved and to reinforce the collaboration for further stories to come.

Source: Tola et al., 2023

Citizen science journalism





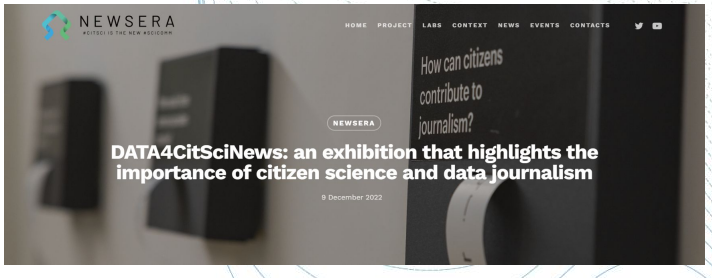


Citizen science journalism

Mapping Makoko Using Drones and Canoes

A floating inner-city slum is in the process of being mapped to make a case for improved public services and land ownership.

Source: Code for Africa/AfricanDRONE/GuardianNG



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For more information:

www.newsera2020.eu
www.impetus4cs.eu

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