

Citizen sensing from a legal standpoint

From legitimizing Citizen Sensing based on individual rights to developing a right to contribute to environmental information



Anna Berti Suman – PhD Candidate a.bertisuman@uvt.nl

Tilburg Law School - Tilburg Institute for Law, Technology and Society (TILT)

Outline

- Short introduction to my background and PhD project
- Why citizen sensing has to be 'legitimized'
 - Risks for the sensing citizens
 - Avenue for policy uptake
- Legal grounds for the action of the sensing citizens
- Consequent obligations for the State
- Q&A



My background

- PhD researcher at the Tilburg Institute for Law, Technology, and Society
- Currently also Visiting Researcher at the JRC – European Commission
- Environmental lawyer by training (Bologna University, Geneva University)
- Pro-bono lawyer for environmental NGOs
- Formerly, work on environmental crimes and litigations (Ecuador), water management (Chile) and the public health sector (UK)



My PhD project

A project aimed to demonstrate that, ***under certain conditions*** to be tested, community-led **citizen sensing can positively influence environmental risk governance** (both increasing its acceptance and improving its quality and efficiency) **and this outcome should be facilitated** as citizen sensing can improve environmental monitoring and reporting, responding to accountability claims.

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What is citizen sensing?

Grassroots-driven environmental monitoring initiatives based on sensor technology

“A **technology, a social phenomenon and a method** entailing lay people acting as intelligent interpreters through pre-existing networks, or networks created more spontaneously by events (e.g. a public health crisis), on which they actively observe, collect, analyse, report, and disseminate risk information”. In addition, it can be regarded as a manifestation of “**rights in action**”.



Why this research?

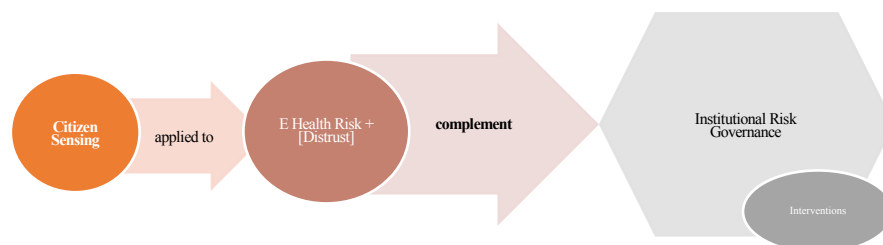
A vast majority of the studies on citizen sensing (and, more broadly, on participatory/citizen science) **emphasizes the learning potential of the practice and its contribution to science. But scarcer attention:**

- to the possibility for the sensing citizens to **concretely influence and complement risk governance;**
- to **the effects of purely grassroots-driven citizen sensing** applied to risk governance;
- to **the possible role of risk (perception) and distrust.**



Research Question

Under which conditions community-led Citizen Sensing, responding to a risk and eventually generated from distrust, can complement institutional risk governance and which interventions are needed for the practice to result in this contributory outcome ?



Research Sub-Questions

3. How can citizen sensing be justified on the basis of individual rights and claims?
Can a right to contribute to environmental information be envisaged?



Why a legal focus?

- Whereas literature and studies on citizen sensing often discuss the practice from a digital studies, socio-political or technical standpoint, **the concept has been scarcely discussed by legal scholars.**
- Increasingly, citizen sensing is considered as having a **potential as source of evidence in environmental litigations**

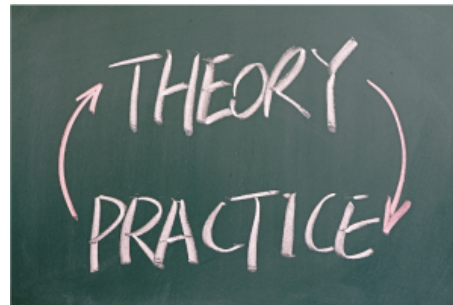


Methodology

- Literature review of scientific publications, legal texts and grey literature
- A web survey, semi-structured interviews and fieldwork [Japan, Tokyo – Fukushima] with project leaders, experts and participants in the citizen sensing field

Geographical scope: US – EU – Asia + few country-based insights

Disclaimer: US case law dominance vs. scarcer but growing EU



Risks for the sensing citizens

- Realities where the act of citizen sensing, especially when in opposition to an institutional establishment, may prove to be (very) dangerous

→ *The Wyoming case of criminalization of the citizen scientists*

→ *The “Strategic Lawsuits Against Public Participation”*

WHY CITIZEN SENSING HAS TO BE LEGITIMIZED

As an avenue for policy uptake

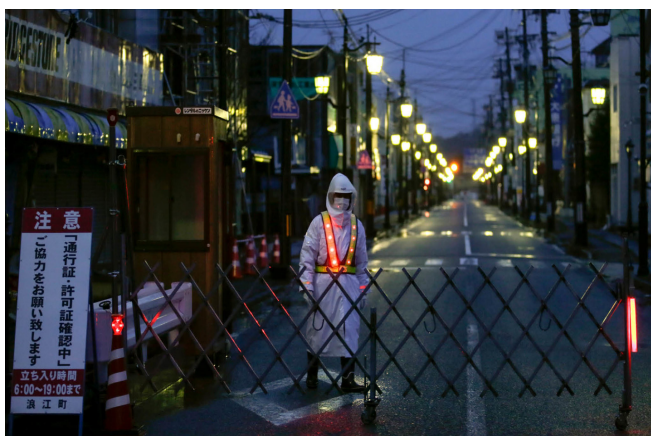
- The legitimization of citizen sensing becomes necessary when arguing that the institutional system *should* rely on citizen sensed data, especially in cases of particularly entangled risk problems and of governmental failures

→ Normative argument

→ Question on input legitimacy

WHY CITIZEN SENSING HAS TO BE LEGITIMIZED

LEGAL GROUNDS FOR THE ACTION OF THE SENSING CITIZENS



Citizen sensing as *a form of rights in action*:

I - The right to live in a healthy environment

II - The right to access environmental information

[interdependence and functionality]

Other possible relevant rights:

III - The right to science

IV - Freedom of information rights

The right to live in a healthy environment



Principle 1- Stockholm Declaration (1972) from the United Nations Conference on the Human Environment: “Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well being (..)”

+ Interpretation by ECtHR/IACtHR of relevant provisions of the ECHR/ACHR

+ In some constitutions (e.g. Norway) & creative interpretation (e.g. Japan: right to happiness and to sunlight)

- Duty of governments
- But also responsibility of citizens and communities
- Connection to information access
- And to participation and consultation

The right to environmental information



Art. 1- Aarhus Convention of 1998, the United Nations Economic Commission for Europe Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters: “In order to contribute to the protection of the right of every person of present and future generations to live in an environment adequate to his or her health and well-being [BINDING], each Party shall [1] guarantee the rights of access to information, [2] public participation in decision-making, and [3] access to justice in environmental matters”
+ EU Directives + Jurisprudence CJEU + Interpretation by ECtHR/IACtHR of relevant provisions of the ECHR/ACHR

- Breadth of this obligation (could include data fed by the citizens)
- Connection to the right to a healthy environment, participation and justice
- Early participation and due account
- Indirect obligation for the State [...]

Accountability claims: citizen sensing as triggering both social and legal accountability



(Artt. 4.1 and 4.2) The framing 'information that is held by public authorities' suggests that this provision does not apply to the information held by the citizens



However, this clause is attenuated by the provision that authorities are obliged, under the Convention, to make all efforts needed to gather accurate and detailed environmental information, and to actively disseminate the information in their possession to the public.



If, for example, a citizen sensing collective provides relevant information to the competent authorities shedding light on an environmental issue on which the authorities lack information or are not even aware of



The latter authorities may actually have **the duty to consider and disseminate the citizen sensed information.** [OBLIGATION OF THE STATE TO LISTEN TO CIVIC ENVIRONMENTAL DATA]

(Art 9.1) “Each Party shall [...] ensure that any person who considers that his or her request for information under article 4 has been ignored, wrongfully refused [...], inadequately answered, or otherwise not dealt with in accordance with the provisions of that article, has access to a review procedure before a court [...]”.



The right to access justice is therefore functional to ensure the enforcement of the right to access environmental information as granted by Art.4.



It also implies that the information **should be provided adequately**, which creates an obligation for the authorities to **take all measures necessary to inform the public properly**.



In the absence of sufficient official information on the matter at issue, the state may be required to **consider citizen sensed data and even facilitate their production** + link to the possibility to **use citizen sensed data in courts**. [OBLIGATION OF THE STATE TO LISTEN TO CIVIC ENVIRONMENTAL DATA]

The Aarhus Convention is complemented by the **Kyiv Protocol on Pollutant Release and Transfer Registers (All UN Member States can join the Protocol, including those which have not ratified the Aarhus Convention)**

The only legally binding international instrument on pollutant release and transfer registers

Objective: to enhance public access to information through the establishment of coherent, nationwide pollutant release and transfer registers (PRTRs).

As the Protocol (**Art. 4**) “allows for public participation in its development and modification”

? To what extent and based on which criteria this participation has took place so far

? What are the standards, if any, that the Protocol sets for acceptable sources of information to build and update the PRTRs

Possible input from citizen sensed data: [A RIGHT TO CONTRIBUTETO ENVIRONMENTAL INFORMATION]

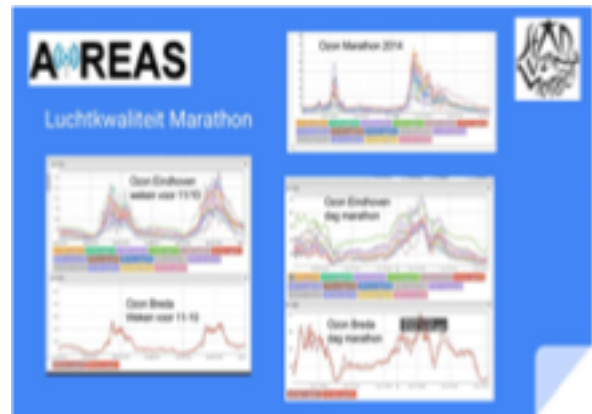
The rights as interpreted by AiREAS participants [qualitative questionnaire]

“Data processing and visualization targeted [at] **making the invisible visible and creating awareness**”

“[AiREAS] made me **more aware** of what air quality means and what impact it has on a person.”

“The unique thing about AiREAS is [to be] value-driven in [the] **context of [a] healthy environment** as [the] base [for] policy”.

“I would classify AiREAS as an example of the willingness of a group of individuals and organizations [...] to join effort [...] **for a healthy and sustainable society**, not mainly economically but well-being driven.”



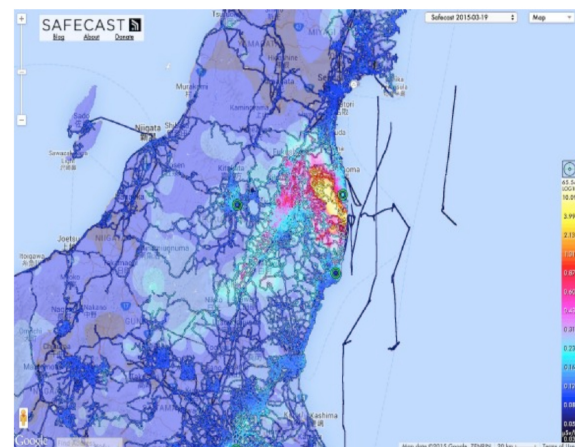
The rights as interpreted by Safecast participants [qualitative questionnaire]

“Safecast has been able to provide a system that just provides data and the user **can make decisions** based on this.”

“Being part of the Safecast collection team has made me research **radiation exposure and possible effects** [on my health].”

“I learned how to **gain right information** and make right decisions.”

“Governments too, may not have been comforted by us (the Safecast volunteers) looking over their shoulder, but I **believe their work was ‘adjusted’ because Safecast set an example of openness and objectivity.**”



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Thank you for your attention? Q&A
a.bertisuman@uvt.nl