Collective awareness platform for outdoor air pollution – the hackAIR approach

Grossberndt, S.[1]; Liu, H-Y[1]; hackAIR consortium[2]
[1] NILU – Norwegian Institute for Air Research, Norway; [2] www.hackair.eu
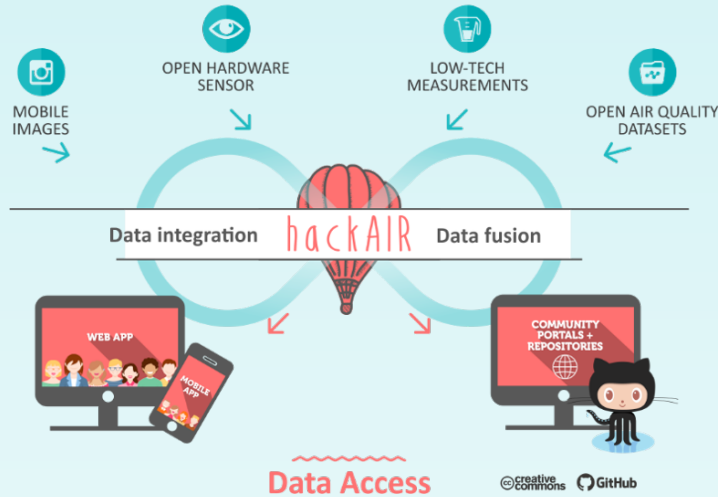
Concept

hackAIR is an open technology platform to access, collect and improve information on air quality (AQ) in Europe. It combines official AQ data with community-driven data sources.

Data sources

- Easy-to-build open hardware sensor modules
- AQ information derived from mobile phone pictures of the sky and webcams
- Low-tech measurement set-up involving paper filters and aquarium air pumps
- Publicly available AQ data

Data access

- Web application for local air quality information
- Mobile app to access air quality information or contribute own measurements

Participatory sensing and citizen engagement

- Citizen involvement through own measurements and publishing of outdoor air quality levels
- Co-design approaches for designing the hackAIR platform

What's in it for … ?

Citizen communities:

- Provision of own measurements
- Obtaining AQ information
- Capacity building
- Behavioural changes
- Increased awareness

Science & policy:

- Insight on AQ patterns
- Information for informed decision-making

Impacts

Improving AQ data in Europe through integrating existing and new obtained data.

Engaging citizens directly in measuring outdoor AQ levels in Germany and Norway.

Raising awareness about AQ and encouraging **behavioural changes** amongst citizens.

hackAIR partners:

Project information
Duration: January 2016-December 2018
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