

CAPS 2025 Presentation Abstract

A review of open data repositories with the aim of supporting the upscaling of citizen science

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Summary

Sharing data is key for upscaling citizen science. The CROPS project reviewed existing repositories, identifying barriers including technical, data quality, and ethical concerns. Addressing these will enable wider data sharing & increase impact.

Description

In the past decade, citizen science has become a proven and accepted methodology across a wide range of scientific disciplines, able to collect new and complementary data which both enhances and adds context to existing data collection methods. By upscaling to a transnational level, citizen science could collect, analyse and exploit a vast amount of data across the Europe and beyond, achieving a higher impact through creating a multinational community of citizen scientists. One method of upscaling the impact of citizen science is by sharing the data created through open data repositories, allowing external researchers, practitioners and communities to exploit the data and analyses associated to it beyond the initial context of the project.

However, many citizen science initiatives start at a small-scale, facing technical, practical and conceptual changes when attempting to upscale to a wider level, with current dataflow mechanisms and data-sharing networks not providing the support, coordination or resources required to assist their effort. To address this shortfall, the CROPS project (Curating, Replicating, Orchestrating and Propagating Citizen Science across Europe) has conducted a thorough review to identify the most relevant open data repositories for citizen science initiatives and to analyse them in terms of type of data shared, requirements for data submission, and existing policies for data access and reuse. We present the results of this review, showcasing existing good practice and opportunities for citizen science to share their data with a wider audience in a standardised and democratic way. We discuss some of the barriers that exist for projects to utilise such infrastructures, including themes around technical expertise, discoverability, data quality and curation, and legal and ethical considerations. By addressing these issues, CROPS will support citizen science in sharing data when contextually appropriate, increasing the impact of their actions.