

Think of an issue in your community from everyday life; there may be different elements (e.g. data or images) related to the issue that seem mundane, but when collected at scale, can be used to tell an important story. Create a platform or set of tools that guides the process from gathering many pieces of separate data to visualizing it on a map (if it is location-based data, or else another appropriate format depending on the data), to using the data to tell a compelling story to the public. This could be used by small groups of scientists or community members to organize “citizen science” projects where members of the public upload data from various locations and then to better explain their work and results.

Additional information:

The desired presentation will include:

- a technical solution for sampling environmental or other data (possibly at different scales/locations)
- a strategy for bringing data together
- a strategy for telling a story about the data

The data collection tool should be something that members of the public typically have access to. For instance, one may ask people from across the city to take and upload pictures of soil samples using their smartphones; by putting these images on a map and allowing one to engage with the map along with notes about soil quality, the public could better understand how soil quality changes based on the properties of the local area (such as whether it is industrial) and how important soil is to their daily lives.

Tableau and ArcGIS story maps are two tools that could be used for public/citizen data or spatial data.

Here is a story map example on rivers from the UK:

<https://www.arcgis.com/apps/Cascade/index.html?appid=0500c8129df0470f8fc04ee3901c685d>

Reference for the types of sensors built into smartphones:

<https://www.societyforscience.org/research-at-home/using-smartphone-for-data-collection/>