Making data readable – dashboards, information visualisation and accessible evidence

Scenario

Your group has been invited to produce a summary brief for a dashboard interface to be used as part of the city centre planning strategy within a local government department.

The team urgently requires information about mobility habits of the population that lives in and around the local authority area. In particular they have expressed interest in the **length and frequency of trips undertaken**, as well as **routes taken**, **modal share of transport types**, **engagement habits with particular amenities** and **busyness of particular areas at different times of day and throughout the week**.

Exercise

Refer to one or more of the following example dashboards and dataset descriptions and complete the following steps:

1. Discuss the respective characteristics of each example dashboard, and the extent to which you feel they are effective. Some things to consider include:

- **accessibility** and **usability** – can you understand the information available, are key indicators explained and is information easy to discover?
- **aesthetic qualities** – is the dashboard pleasant to use and visually engaging?
- support for **interactivity** or **flexibility** – does it offer the ability to answer specific questions?
- **continuity** – is information regularly updated, is this a resource you would expect someone to reference more than once?

Finally, drawing on them for inspiration, suggest some characteristics of a dashboard or visualisation that you think would meet some of the local authority's information needs (**15 mins**).

2. Consider how one or more of the datasets described below could be incorporated and what indicators might be derived and included (**10 mins**).

3. Finally, summarise your practical recommendations and anticipated challenges and prepare to report back in the closing session (**10 mins**).

Example Dashboards

We recommend that you focus on only the **first one or two dashboards** on this list. The additional examples are provided for those interested in exploring further.

- London Urban Mobility Index City Data
- Dublin Dashboard
- UK Shared Micromobility Dashboard
- Google Mobility London Boroughs

Example Datasets

The descriptions provided below do not include a great deal of detail. Feel free to rely on any **reasonable assumptions you make regarding information content or coverage**.

Tamoco Mobile Location Data

What is it? Tamoco provides organisations with access to real-time mobile phone location data. Tamoco's geospatial data is derived directly from mobile devices using a combination of GPS and WiFi, in order to generate industry-leading location signals. The dataset consists of Tamoco's Standalone Location Data which provides: raw location events stemming directly from the device Operating System; 7-digit Latitude and Longitude data with accuracy scores, providing a complete picture of how a device moves over time.

UBDC Pavement Width Dataset

What is it? A dataset extracted from the Ordnance Survey MasterMap Topography Layer, initially filtered to produce a dataset comprising man-made roadside features such as pavements and footpaths. For each feature, a centre line is identified and a measurement taken to the diametrically opposed point - i.e, from the centre to the edges of the pavement. Finally, for each join between adjacent centre points we reconstruct a line segment and apply to it a width value – the average distance between the two connected points.

UBDC CCTV Automated Object Detection Data Output

What is it? This dataset is an output of an ongoing collaboration with the local authority to utilise its existing CCTV community safety and crime monitoring system as a ready-made sensor network. It comprises of counts over time of particular detected object types (car, person, bicycle, motorcycle, bus and truck) at around 50 camera locations sampled at 30 minute intervals.