# BENCHMARK  EthicalGEO

# Responsible use of location data: the Benchmark Initiative

October 2020

GEOVATION | ON OMIDYAR NETWORK™

# Benchmark

- Supported by PlaceFund (part of the Omidyar Network) and Ordnance Survey

- Complementary program in USA EthicalGeo

# Objectives

Thought leadership through events

Real-world tools and services through entrepreneurship program

Create interaction between data ethics and geospatial fields

Explore what responsible and ethical practice looks like for location data use



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# Event themes

Never alone again? Location data, privacy, and consent

The map is not the territory: representation, bias and inequity in location data

Pandemic: tracking infections; managing distance at work; and in public places

Smart cities; Data for Inclusive Design of Places

International: Data Colonialism; Data and Human Migration; Data in Global Agriculture; Tackling Waste

Entrepreneurs showcases

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# Entrepreneur Programme

4 x teams
Mixture of applications & services
Showcase events across Sept – Nov via webinars

- Projects by IF - privacy-protecting use of mobility data (open source tool)
- Clear your tracks – Public understanding of location-tracking by mobile phones
- Gather– tool to assist decision makers to assess data in addressing gaps in global sanitation provision
- Travelai – maximising utility of mobility data while preserving privacy

**Why explore ethics and responsible practice in relation to location data?**

# We are all using more location data because it's powerful

- Location data technologies are continually improving and being added to other services:
  - location-based advertising
  - optimising supply chains
  - consumer services: maps, delivery and micro-mobility
  - planning and local economic development
  - public service provision
  - resource management for sustainability

- New applications create new capabilities, and new power in markets and in society

## … and with power comes responsibility, and the potential for great good but also harm

# Geospatial can't be absent from the scrutiny of technology in society

- To date, location has not figured very much in data ethics debates
- And ethics haven't featured very much in recent geospatial technology development
- Consumer data norms are being developed for the internet, and it's not yet clear how well they will translate to about physical space
- The current wave of "4th Industrial Revolution" technologies – AI, IoT, geospatial – tends towards convergence in more complex, diverse and opaque forms
- Geospatial will come under the same scrutiny as these other technologies, around bias, safety, privacy, and impacts on markets and power relations

# Exploring ethical risks enables solutions to be developed and shared

- Privacy-protecting technologies
- Audit and accountability of bias in data
- Explainability of algorithmic decisions
- Minimise harms and maximise social value
- Enabling informed decisions

# Geospatial can learn from data ethics in other domains

- Bias: risks for those who are excluded, unrepresented, or over-represented in datasets, vulnerable, or lack data literacy skills; diversity among geospatial practitioners

- Privacy: current privacy regulation focuses on individuals, but spatial applications can affect groups (or fail to represent them) with collective needs such as in smart city applications

- Market power and data colonialism: ability to predict and influence behaviour; international companies gaining power over emerging economies through data accumulation

- Location is increasingly added to complex services, creating new capabilities and risks in accountability and transparency

**but risks, impacts and solutions can be specific to location**

# Location is a (relatively under-developed) dimension in evolving norms around personal data

- Surveillance capitalism: growing interest in industry in tracking consumers, growing resistance from consumer bodies, media and politics

- Scrutiny of data practice can change fast: in January 2020

- Apple and Android reduced default tracking by apps

- Irish regulator (in effect, EU regulator) announced investigation of Google's use of location in Europe

- Pandemic: tracking infections (individual and spatial); managing distancing at work and in public

# Why does this matter to you?

- Location will become embedded into many local services and decision processes
- That has great potential for getting resources to the right places and people more effectively, and managing places better
- But as with any "datafied" services, you need to understand and manage the risks, like bias, privacy, power imbalances, negotiations with digital companies, and decisions that are hard to explain

- In the pandemic we've already seen location data in new ways: tracking infections (individual and spatial); managing distancing at work and in public – there's probably more of this to come!

# New directions with local data?

- Demand for data integration and presentation services: "control rooms"

- Ongoing, evolving demand for managing buildings, movement and public space

- Increased automation of city operations and services

- More urban applications of Internet of Things; supported by more cybersecurity applications

- More surveillance, more fear of surveillance; more opportunities for tech that delivers collective value and privacy-protections

# Local places in the data economy

- More recognition of the power and (contested) value of local data, including local data held by companies

- Local public services representing citizens in negotiation / conflict with major digital companies

- More investment in data in the local public sector

- Applying Artificial Intelligence to:

- Verticals (monitoring of many aspects eg traffic, weather, maintenance)

- Integrated data sources

# AI for better places

- Monitoring of infrastructure
- Computer vision analysis of CCTV to identify violations, eg fly-tipping
- Monitoring and management of traffic and air pollution
- Analysis of bulk internet of things data to track weather, sound, movement, streetlighting
- Improved planning
- Social media monitoring to understand citizens' needs
- New analysis of complex problems
- Faster and more accurate analysis of local economies

# Do we need common and open ethical guidelines for using local data for smarter places?

- Bias in local data leading to bias in local service coverage
- Privacy and surveillance: how far towards the City Brain model?
- How to represent collective rights and interests in data
- Optimising AI applications: for whose benefit? In planning, traffic management, air quality
- Transparency: should a public service implement decisions it can't explain?
- Automation: done for citizens, or to them?

# Locus Charter

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# Why?

- Other data ethics work, but not much on location data yet

- Workshops showed a need for practical guidance

- Practitioners want to do the right thing

- Need a better language to communicate between organisations and users/public e.g. contact tracing

# Locus Charter

*(Draft v2.0 as at 12 October 2020)*

The Locus Charter[1] is a proposed international set of principles and guidance for ethical and responsible practice when using location data.



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# Our Vision

A world where location data is utilized for the betterment of the world and all species that live in it.

# Who we are

An international collaboration of governments, organisations and individual practitioners seeking to ensure the ethical & responsible use of location data throughout the world.

# Audience

The Charter is written for all organisations that use location data and who have responsibility for activities that create, collect, analyze and store location data.

# Structure

- Opening statements – aimed at organisational level

- Preamble

- Principles (concise & high level will include signposting to other charters where relevant, e.g. openAI charter)

- Commitment / Pledge

# Key ideas/principles emerging from workshops

- Personal privacy vs collective good

- Location anonymisation

- Collective consent

- Individual data control

- Unintended consequences of location data combination

- Reliability / Quality / Parameters of trust
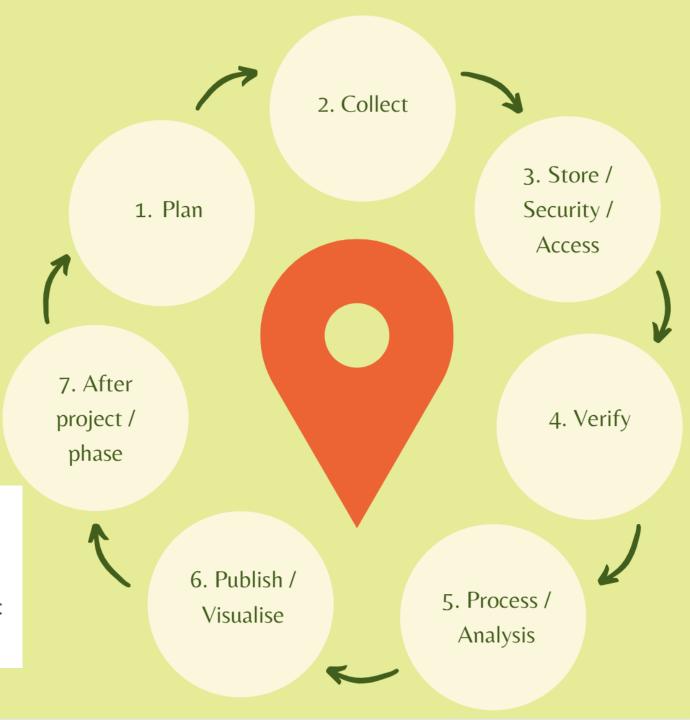
- Data commons and trusts

- Consent based architecture

# Framework..... work in progress

## location service lifecycle

Today a location service rarely ends and disappears. Instead it will continuously be evolving and being improved. But for each change you will need to consider the ethics of each of your decisions, trade-offs and interactions and whether this may result in harms.

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1. Plan
2. Collect
3. Store / Security / Access
4. Verify
5. Process / Analysis
6. Publish / Visualise
7. After project / phase