

MITIGATING INHERENT BIASES AND CHALLENGES IN MOBILITY DATA

Mobility data is one of the most powerful tools customer-focused companies can use today. It provides the most comprehensive view of real-world consumer behavior, giving companies a competitive advantage to stay ahead.

Yet, most mobility datasets are impacted by errors and biases - making it difficult for companies to gain meaningful insights from them.

For that reason, choosing a data provider with advanced technical capabilities is key to create value from mobility datasets.

At Echo, we have hired some of the smartest people in the field to work on these challenges.

THE MOST PROMINENT DATA INACCURACIES NEED TO BE REMOVED TO ENSURE QUALITY



Teleportation

Movements with unrealistic speed and distance are removed, ensuring data validity and authenticity.



False dwell times

We only consider signals that indicate continuous visits for a certain period of time. In this way, we can accurately attribute dwell times.



Noisy signals

Hotspots can sometimes create 'noise' and distract from real-world behaviours, making the data unreliable.

The Standards at Echo

We carefully select and correct our data sources to ensure that they are representative of the population, consistent, trust-worthy, and provide enough sample to remain statistically significant. To achieve this we've established the following steps:

CLEANING

We clean and normalize data to remove errors.

SEGMENTATION

We filter highquality data that reflects real behavior patterns and shows clear movement trends.

DWELL DETECTION

We analyze the data to attribute visit counts to real behaviors.

BIAS CORRECTION

We adjust for biases to provide a fair population representation in data analysis.