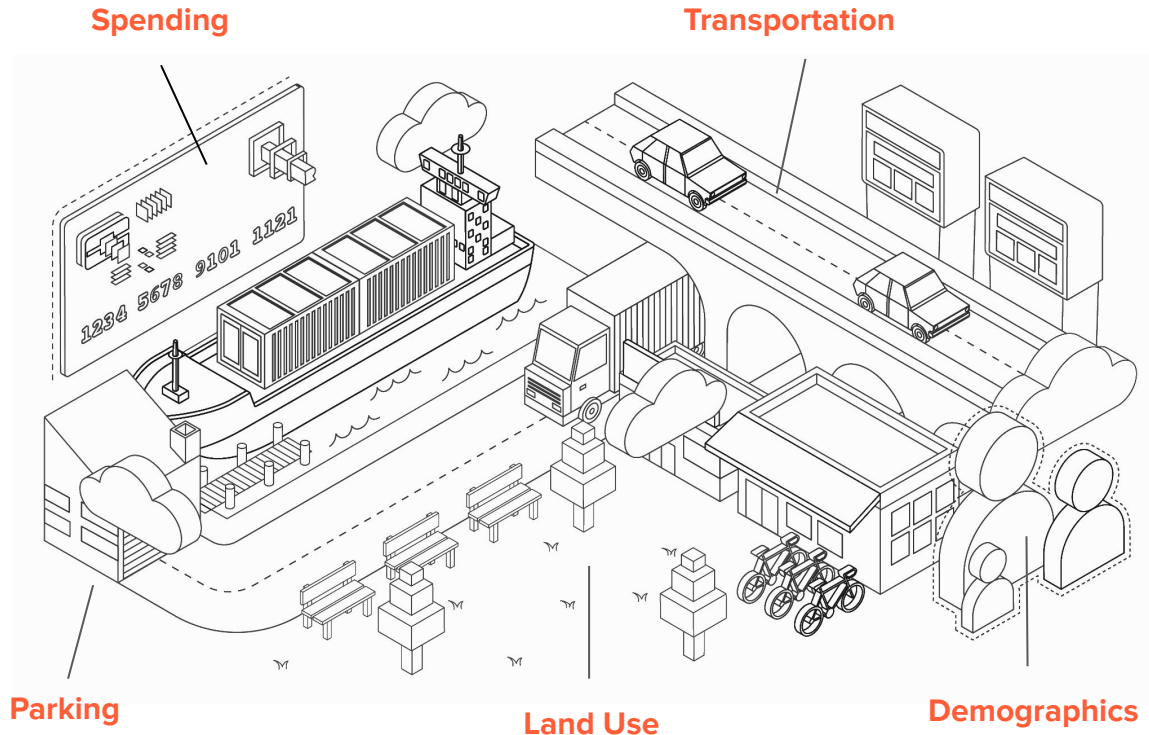


**REPLICA**

# Our Mission

**Organize** the world's information about the **Built Environment** to make it **accessible**, **valuable**, and **actionable**.



# Data Inputs

We leverage a diverse set of third-party source data to create our models.

This composite approach is both a risk-mitigation strategy and aligned with our objective to show a **holistic view of the built environment**.



**Location  
Data**



**Consumer  
& Resident Data**



**Built  
Environment**



**Economic  
Activity**



**Ground  
Truth Data**

# The Pipeline

Replica generates its data by running computationally intensive, **large-scale simulations**.

These simulations allow us to deliver **granular data outputs** that match behavior in aggregate, but **don't compromise the privacy** (or surface the actual movements) of any one individual.

1

Create a **synthetic population** matching the characteristics of a given region



2

Train a number of **behavior models** specific to that region



3

Run **simulations** of those models applied to the population to create a “replica” of transportation and economic patterns



4

**Calibrate the outputs** of the model against observed “ground-truth” to improve quality



# Transit Connections

For their recent report “Extending Transit’s Reach,” the MTA, in conjunction with Nelson\Nygaard and Sam Schwartz, utilized Replica’s bicycle trips data in an analysis of contextual demographic data and ridership demand data. The outcome was a schema that identified both 1) level of need for access and 2) level of demand for access to prioritize MTA facilities for improvement of bicycle, pedestrian, and micro-mobility access.

[Learn more here](#)

