Los Angeles: An Urban Proving Ground for Smart Cities

Jeanne Holm

@JeanneHolm

Senior Technology Advisor to Mayor Garcetti

Deputy CIO, City of Los Angeles

Artificial intelligence

Predictive analytics

Personal assistants

Machine learning

Internet of things

Blockchain

Gamification

Virtual and augmented reality

Open data systems

Data Science Federation

18 Universities and Colleges

City data challenges

Data science professors and students

Predict
Analyze
Visualize
Design
Simulate

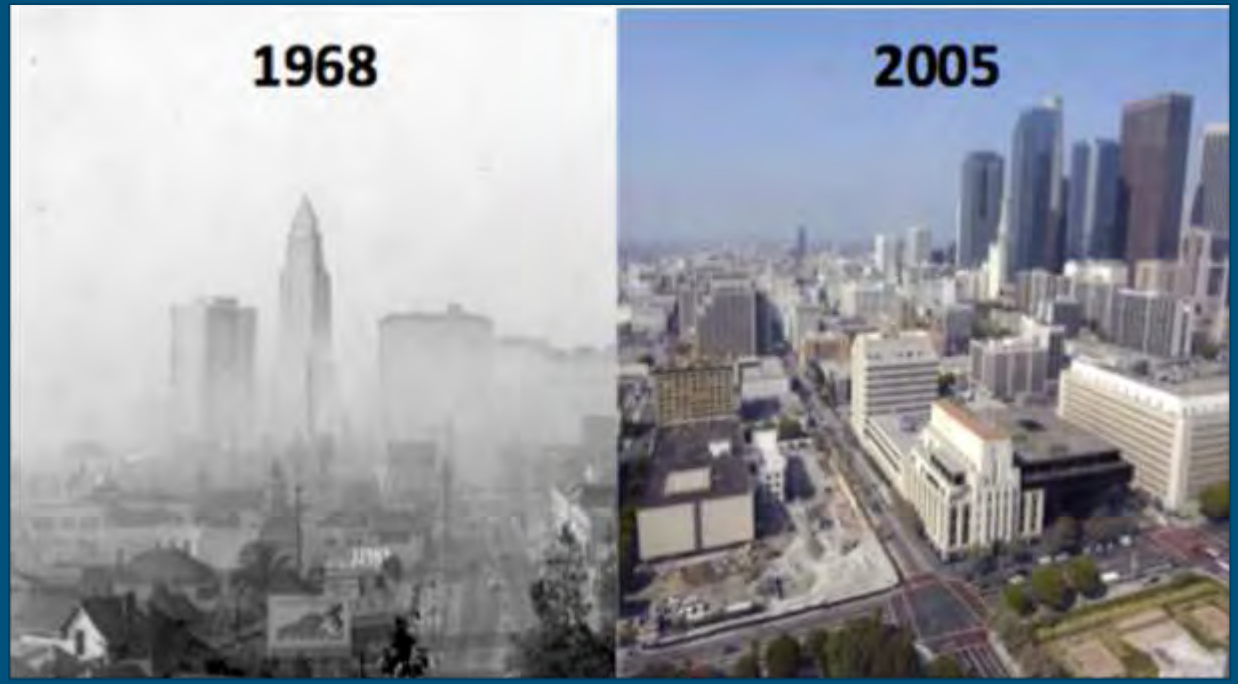
+ girls who CODE

HACK FOR LA

Speed : 59 km/h
Time to Destination : 1h 48min
Distance to Destination : 132 km
Temp at Destination : 4°C
18:46
Mittwoch, 5. Februar

github.com/CityOfLosAngeles/mobility-data-specification

Characterize, understand, and improve the quality of air in urban areas across the planet

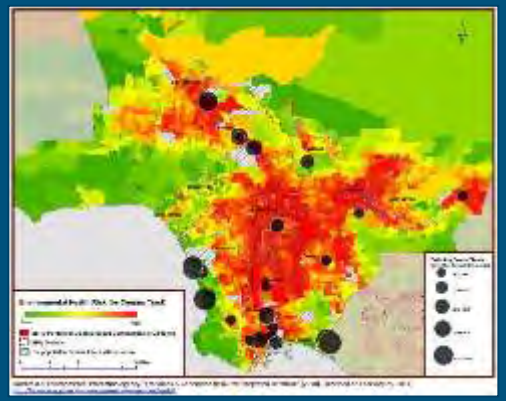


Apply machine learning to data from cities, IoT, and NASA

- City-to-city collaboration on effective AQ control strategies
- Accurate predictive capabilities
- Urban scale information

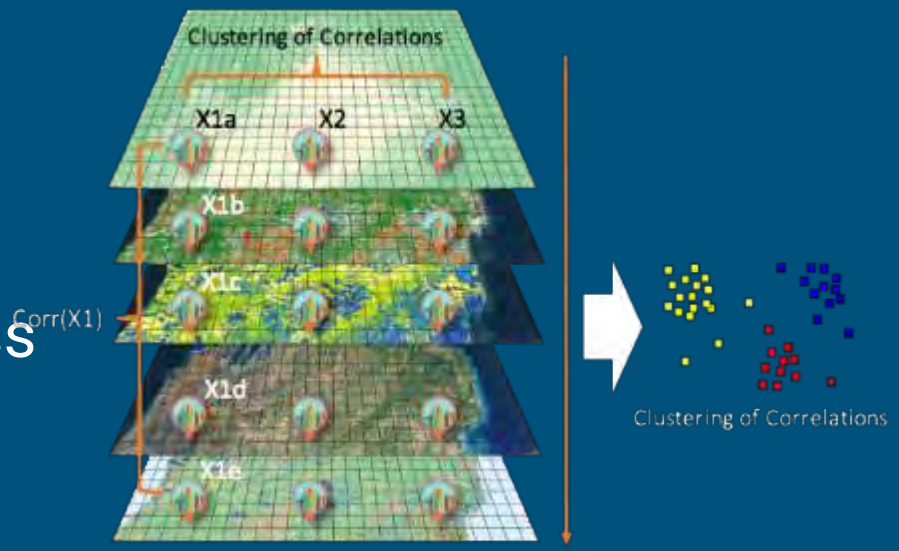
1. Create a Model for Cities

- Identify similarly polluted #AQSisterCity to understand effective solutions
- Examine $PM_{2.5}$, PM_{10}, O_3, and more for C40 cities and others, augmented by data from NASA missions



2. Apply Machine Learning

- Create a model to generate high-resolution O_3 and $PM_{2.5}$ maps in urban areas
- Create a big data platform that allows data fusion across diverse sets
- Evaluate models and accuracy



3. Improve Decision Making

Improve city planning, health outcomes, and enforcement

- Create visualizations
- Identify and integrate local data from IOT and sensors
- Correlate to green spaces and other mitigation efforts
- Share findings via smart city air quality intervention and toolkit (C40 cities, U.N. Sustainable Development Goal Network, Climate Mayors, etc.)

Seeking Collaborators

- Data source sharing via OpenAQ
- Machine learning models via Github
- City partners for air quality
- Workshops at conferences

Join our team and follow us on Twitter at #AQSisterCity

Collaborators:
Mike Little, NASA;
Dr. Mohammed Pourhomayoun, California State University, Los Angeles
Dr. Christa Hasenkopf, Director, Open AQ

SUSTAINABLE DEVELOPMENT GOALS
17 GOALS TO TRANSFORM OUR WORLD

REPORTING STATUS ABOUT GUIDANCE FAQ A A

Indicator search

City of Los Angeles data for Sustainable Development Goal indicators

Click on each goal, or search, for City of Los Angeles statistics for Sustainable Development Goal global indicators.