

Metropolitan Sciences Spoke



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Mission: Empower Cities and Urban Scientists

- Cities of all sizes: publish data; use external data
- Data discovery and exploration across diverse sources and disciplines
- Open data products to enable discovery of potentially available sensitive data.

Accelerating progress
towards addressing
societal grand challenges

Helping automate the “Big
Data” lifecycle

Enabling access to and
increasing use of
important and valuable
data sets

Data discovery and exploration across diverse sources and disciplines

- Use EcoDistricts Protocol as Framework for Data Organization
- Begin with Social/Economic Data Sources
- Expand to Access and Mobility (Transportation)





REPORT TO THE PRESIDENT Technology and the Future of Cities

Executive Office of the President
President's Council of Advisors on
Science and Technology

February 2016



Table of Three Key Dimensions

	Efficient / Green	Convenient / Mobile	Connected
Socioeconomic issues	Clean air Clean water Comfortable and affordable living	Safer neighborhoods Affordable transportation	Better education and training Social capital Poverty elimination
Transport	Reduce CO ₂ Reduce pollution Reduce noise Improve land uses	Increase walkability Decrease vehicular congestion Eliminate traffic fatalities	Universal access Reduce time Increase health comfort and productivity
Buildings	Reduce CO ₂ Reduce energy use	Comfort Home management	Health living and working environments Affordable housing Safety
Water	Efficient consumption Storm water management Recycling		Access to water
Health	Reduce asthma cases	Access to hospitals	Affordable and accessible health care Eliminate food deserts
Energy	Implement smart grid	Diminished energy transport	Universal access Reliability Human capital

PCAST report released 23-February-2016



Energy Usage

An unprecedented dataset containing electrical and gas energy usage throughout Chicago in 2010. Data is available by Census block and month.



Alternative Fuel Locations

List of locations in Chicago where alternative vehicle fuels are available.



Crimes - 2001 to present

Review reported incidents of crime that occurred in Chicago from 2001 to present.



Chicago Transit Authority Datasets

Explore CTA data, including bus routes, 'L' lines, ridership information and fare card sales outlet locations.

View Types

- ☒ Datasets
- ☒ Charts
- ☒ Maps
- ☒ Calendars
- ☒ Filtered Views
- ☒ External Datasets
- ☒ Files and Documents
- ☒ Forms
- ☒ APIs

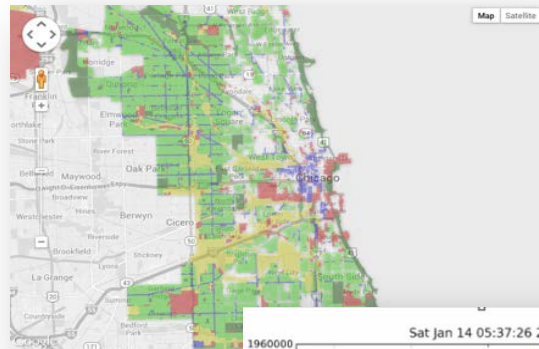
Categories

- Administration & Finance
- Buildings
- Community & Economic Development
- Education

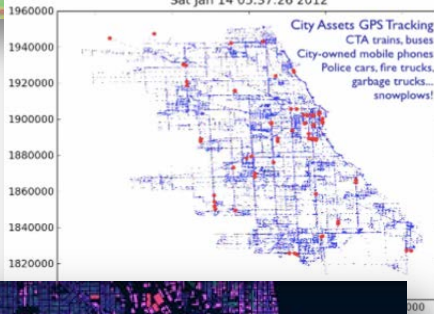
Search & Browse Datasets and Views

[Most Accessed](#)[This week](#)

Name	Popularity
<input checked="" type="checkbox"/> Elevation Benchmarks Buildings benchmarks, gis	4,662 views
1. The following dataset includes "Active Benchmarks," which are provided to facilitate the identification of	
<input checked="" type="checkbox"/> Performance Metrics - Innovation & Technology - Site Availability Administration & Finance	360 views
2. performance metrics, technology	
The website availability metrics below are derived from an automated monitor that sends a request	
<input checked="" type="checkbox"/> Relocated Vehicles Transportation vehicles, streets	2,954 views
3. This dataset presents current and former locations of vehicles that have been relocated by the City of	
<input checked="" type="checkbox"/> Towed Vehicles Transportation vehicles, streets	5,744 views
4. This dataset displays location for vehicles that have been towed and impounded by the City of Chicago	
<input checked="" type="checkbox"/> Chicago Traffic Tracker - Congestion Estimates by Segments Transportation traffic, sustainability	1,499 views
5. This dataset contains the current estimated speed for about 1250 segments covering 300 miles of	
<input checked="" type="checkbox"/> Chicago Traffic Tracker - Congestion Estimates by Regions Transportation traffic, sustainability	1,545 views
6. This dataset contains the current estimated congestion for the 29 traffic regions. For a detailed	



Sat Jan 14 05:37:26 2012

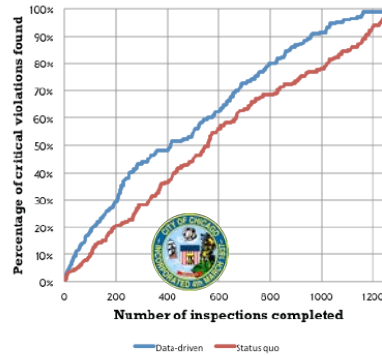


OPTIMIZING FOOD INSPECTIONS

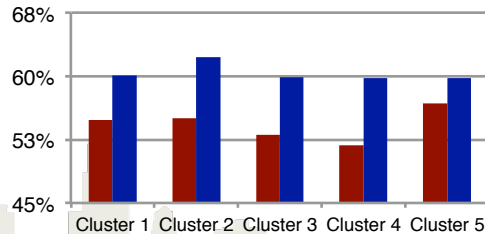
Discovering critical violations sooner rather than later reduces the risk of patrons becoming ill, which helps reduce medical expenses, lost time at work, and even a limited number of fatalities.

(Source Tom Schenk, City of Chicago; Dan Neil, CMU)

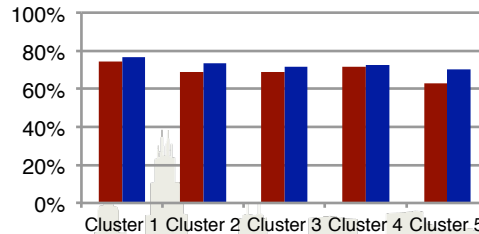
Impact



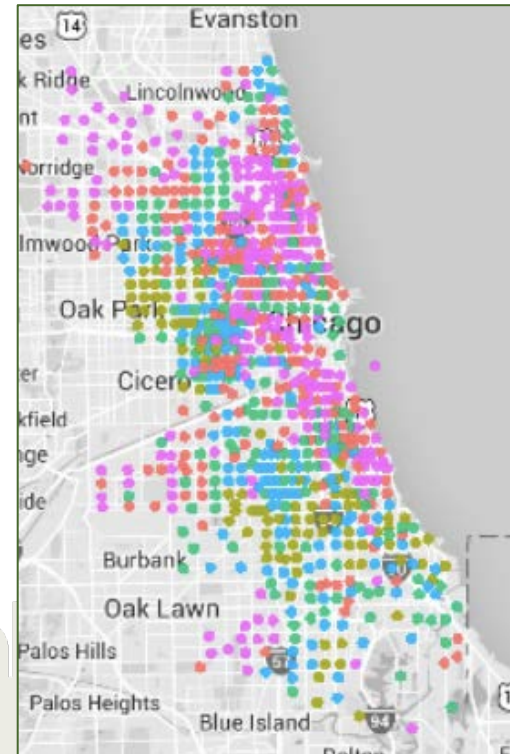
True Negative %



True Positive %



■ w/o weather
■ w/ weather



(Source Brett Godstein, Maggie King, UChicago Harris School of Public Policy)

Science

Data Prep

Plenario, a Powerful City-Data Tool, Debuts

Chicago's open-data community takes another step forward with a site that makes working with that data easier, faster, and more comprehensible.

BY WHET MOSER

PUBLISHED SEPT. 24, 2014

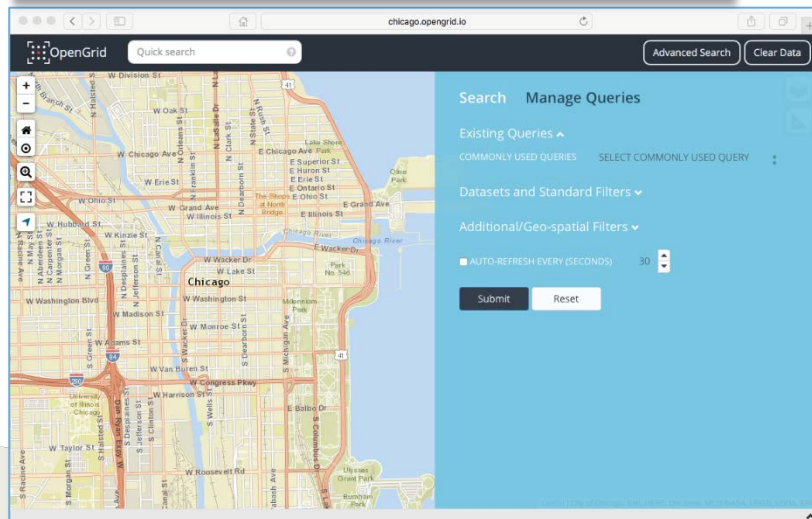
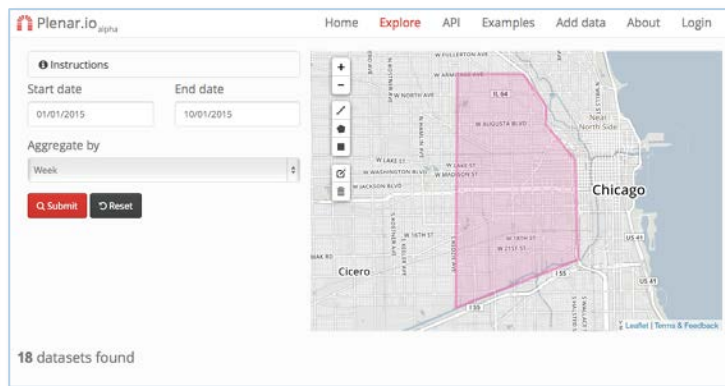
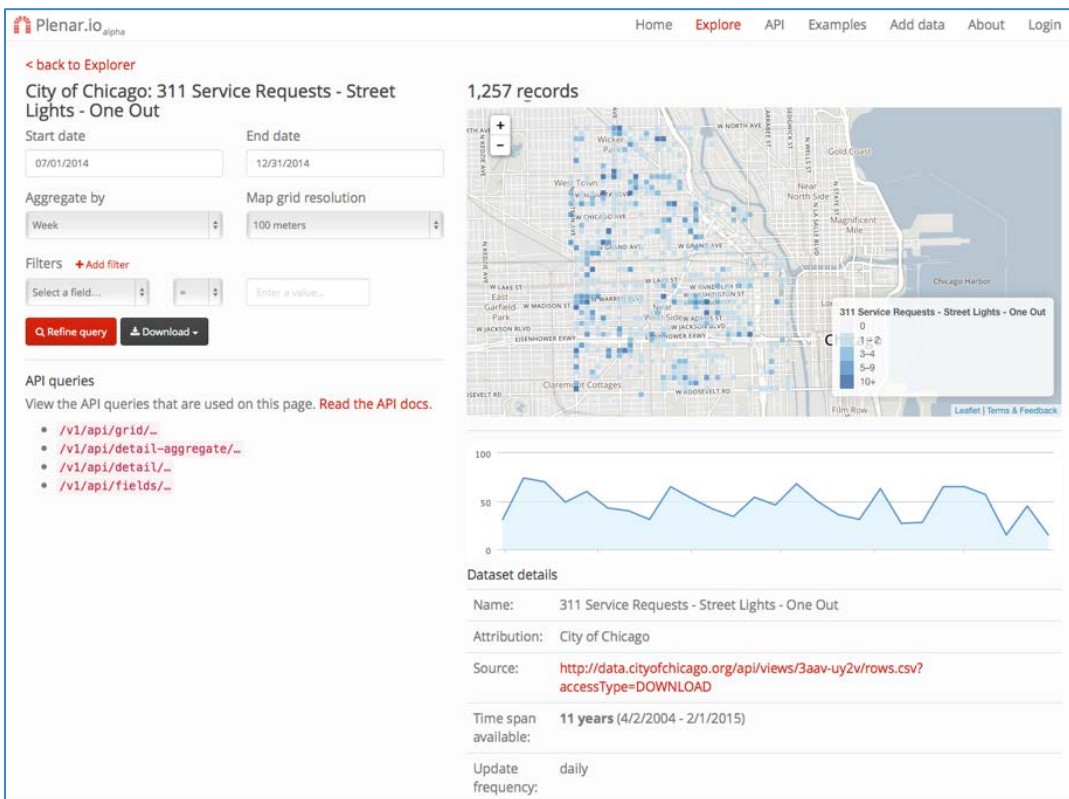


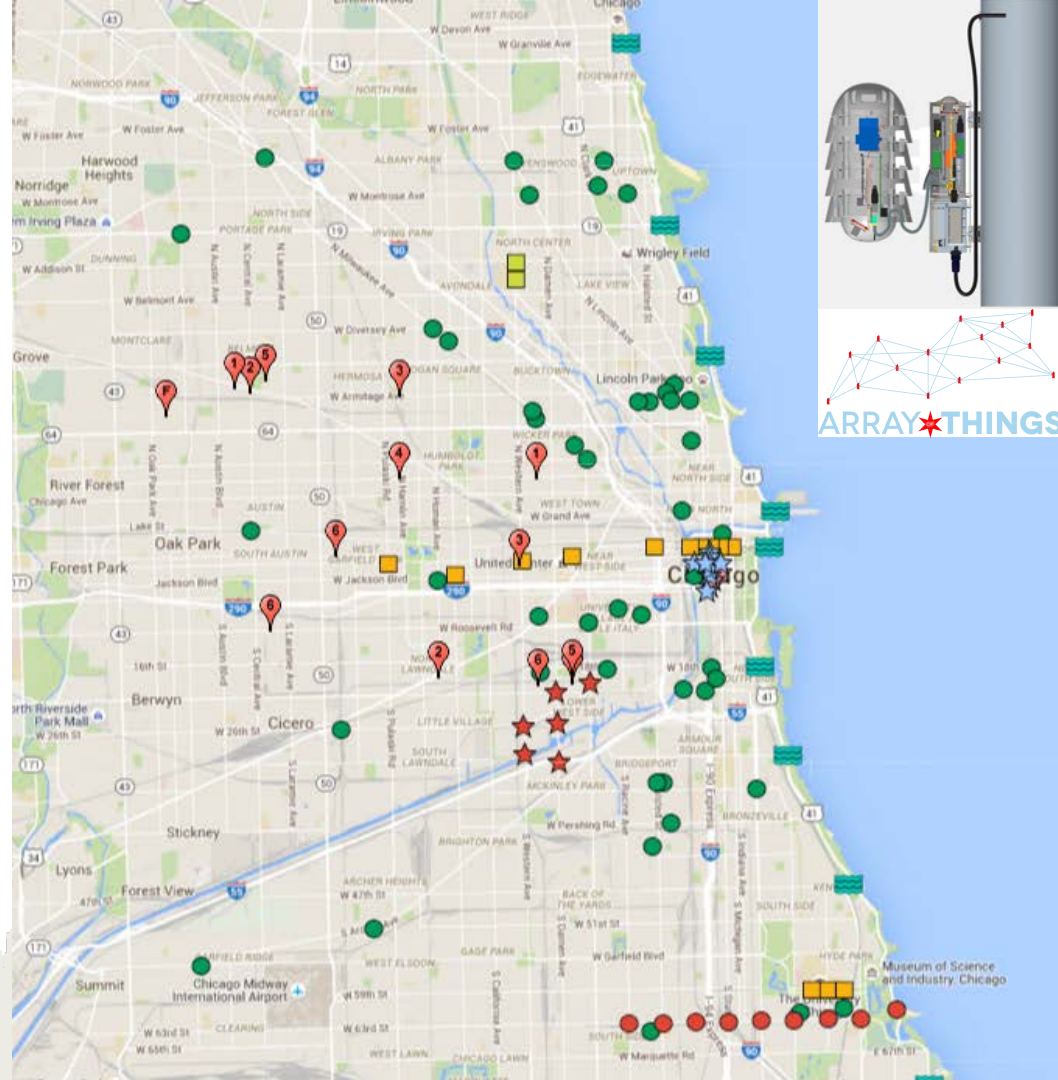
Cities of all sizes: publish data; use external data

- Develop training curricula for municipal leaders
- Interaction and dissemination through regional and national organizations of municipal leaders
- Extend Plenario for direct publication not requiring an open data portal



Understanding the City: Integrated Data Platforms





Open data products to enable discovery of potentially available sensitive data

- Select candidate sensitive social/economic data sets
 - Use NORC de-identification and aggregation tools to create open data products for search/discovery
- Explore the feasibility of creating “Software-as-a-Service” access to NORC de-identification and aggregation tools.



