



# Data Democratization and the Changing Role of Citizens

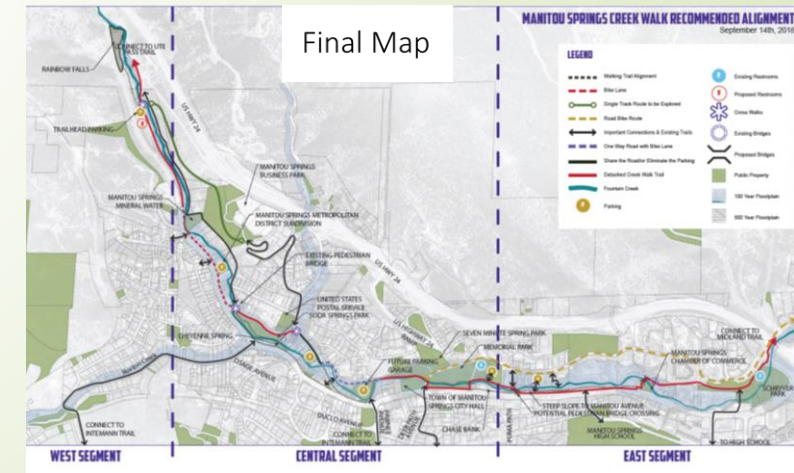
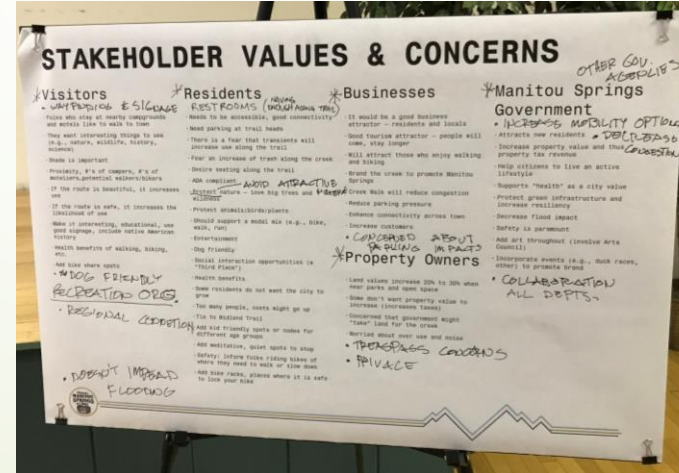
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2019 ASCE Symposium for Sustainable Infrastructure – Rocky Mountain Region,  
April 5-6, 2019, Springhill Suites, Auraria Campus, Denver

# Citizen Participation

- Legally required by most Federal, State, and Local governments
- Varies widely in methodology
- As does it's efficacy and effectiveness



# Citizen Engagement

- Device proliferation
- Gov 2.0
  - Open Data Initiatives
  - Open Source
- Government apps
  - 311

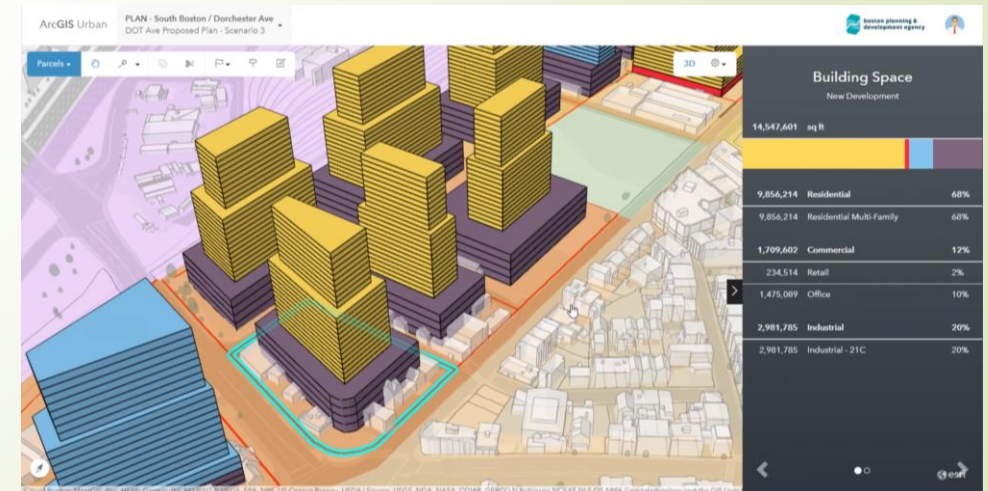
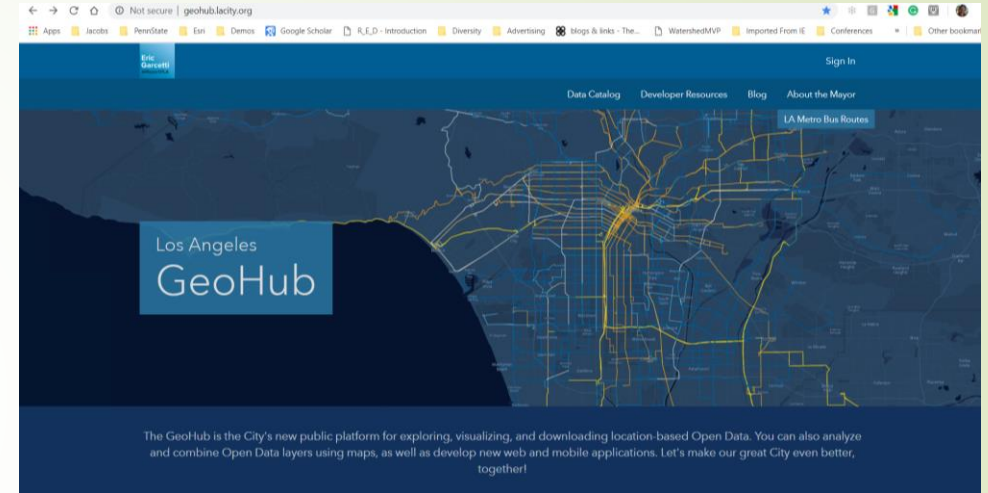
The screenshot shows the Denver Open Data Catalog interface. At the top, there is a navigation bar with the Denver logo and links for Neighborhood, Business, Visiting, Government, Online Services, and A to Z. A search bar is located on the right. Below the navigation bar, the page title is "Open Data Catalog". There is another search bar and a "Search" button. The main content area is titled "Results" and shows a list of data layers. The first result is "Zoning for Farmers Markets", which is a subset of the zoning boundaries for the City and County of Denver, Colorado. The second result is "Zoning for Light Industrial Food Preparation and S...". To the right of the results, there is a "Filter By Tag" section with a list of tags such as "boundaries", "farming", "food-systems", "gis", "planning-cadastre", "zoning", etc.

The screenshot shows the Citizen Problem Reporter mobile app interface. The app is titled "Citizen Problem Reporter" and has a "Sign In" button. The main screen displays a map of a neighborhood in Denver, Colorado, with a red circle indicating a reported problem. The problem is a "Road Problem" of type "Pothole". The problem details are "Large pothole in the right lane." The user's full name is "Joe Blow", their phone number is "xxx-xxx-xxxx", and their email is "Joe.Blow@what.com". The date submitted is "April 02, 2019". The app is powered by Esri and is used by the University of Colorado-Denver, County and City of D.

The screenshot shows the City of Cilantro mobile app interface. The app is titled "City of Cilantro" and has a search bar. The main screen displays a "Featured" section with two items: "Construction sites" and "Temperature report". Below the featured section, there is a "Popular" section with two items: "Buffer of incidents" and "Esri worldwide". The app is used by the City of Cilantro.

# The Techno Revolution

- Big Data
- Crowd sourcing
- Machine Learning
- Predictive Analytics
- Spatial Analytics
- Gov 3.0 and on...
  - Evidence-based decision making
  - Policy innovation
  - Scenario planning
  - Optimization
- 3D



# Geodesign

- The Digital Twin
- Science-based
- Value-based
- Collaborative Co-Creation
- Triple Bottom Line metrics
- Informed Decision Making



10% Rain Captured

15% Natural Cooling

5% Heat Island Reduction



10% Energy Savings

5 minute walk to Transit

28% Shade Cover



# Data Democratization



- ▶ Data wants to be free vs. Data should be controlled
- ▶ How much data should be shared?
- ▶ How do we weigh the intended and unintended consequences of algorithmic decision making?
- ▶ What if data turns into valuable information that exposes vulnerabilities in a particular neighborhood?
- ▶ What if that information has an impact on property values?
- ▶ What if data helps expose and address social inequities?