Beyond Navigation: Transportation Data as a Tool for Citizens & Communities

Presented by
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West Baltimore Strategic Alliance

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Overview

• What is WBSA?
• Basic Principles of Open Data
• Transportation Data Types & Uses
• Challenges to Open Data
• Moving Beyond Navigation
West Baltimore Strategic Alliance

• **Who We are**
  – Un-incorporated, all-volunteer, non-profit community organization
  – Non-partisan coalition of residents, property owners, small business owners, and community representatives

• **Our Mission**
  – To develop and implement a **unified community development strategy** for West Baltimore

• **Our Charge**
  – To *educate, unite, and empower* West Baltimore MARC area communities through targeted research, comprehensive strategy development, and effective organizing

• **What We Believe**
  – *The development process should be transparent, inclusive, and accountable to the general public.*
  We also believe that *projects involving public resources should produce tangible community benefits.*
Open Government Data Principles

1. Data Must Be Complete
   • All public data are made available. Data are electronically stored information or recordings, including but not limited to documents, databases, transcripts, and audio/visual recordings. Public data are data that are not subject to valid privacy, security or privilege limitations, as governed by other statutes.

2. Data Must Be Primary
   • Data are published as collected at the source, with the finest possible level of granularity, not in aggregate or modified forms.

3. Data Must Be Timely
   • Data are made available as quickly as necessary to preserve the value of the data.

4. Data Must Be Accessible
   • Data are available to the widest range of users for the widest range of purposes.

5. Data Must Be Machine-processable
   • Data are reasonably structured to allow automated processing of it.

6. Access Must Be Non-Discriminatory
   • Data are available to anyone, with no requirement of registration.

7. Data Formats Must Be Non-Proprietary
   • Data are available in a format over which no entity has exclusive control.

8. Data Must Be License-free
   • Data are not subject to any copyright, patent, trademark or trade secret regulation. Reasonable privacy, security and privilege restrictions may be allowed as governed by other statutes.

Finally, compliance must be reviewable. A contact person must be designated to respond to people trying to use the data. A contact person must be designated to respond to complaints about violations of the principles. An administrative or judicial court must have the jurisdiction to review whether the agency has applied these principles appropriately.


[http://www.slideshare.net/jdmargulici/open-data-fortransportation-agencies](http://www.slideshare.net/jdmargulici/open-data-fortransportation-agencies)
Transportation Data Types & Uses

• General Types
  – Accident reports
  – Paving analyses and moratoria
  – Parking capacity and usage
  – Radar speed detection
  – Real time transit vehicle locations

• Common Uses
  – Traffic detection & control
  – Resurfacing
  – Parking management & enforcement
  – Fleet management
  – Trip planning tools
  – Real estate marketing
# Open Transportation Data Sample: Traffic

<table>
<thead>
<tr>
<th>Description Data</th>
<th>State / Predictive Data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Navigation</strong></td>
<td></td>
</tr>
<tr>
<td>Road Geometries</td>
<td>Road Closures &amp; Detours</td>
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<tr>
<td>Roadway Signage</td>
<td>Air Quality Restrictions</td>
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<tr>
<td>Evacuation Routes</td>
<td>Traffic Volumes &amp; Speeds</td>
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<tr>
<td><strong>Traffic Control</strong></td>
<td>Evacuation Routes</td>
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<tr>
<td>Signals &amp; Timing Plans</td>
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<tr>
<td>HOV Lanes &amp; Rules</td>
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<tr>
<td>Ramp Meters</td>
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<tr>
<td>Toll Schedules</td>
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<tr>
<td><strong>Parking &amp; Streets</strong></td>
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<tr>
<td>Park &amp; Ride Lots</td>
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<tr>
<td>Parking Rules &amp; Schedules</td>
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<tr>
<td>School Zone Schedules</td>
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<tr>
<td><strong>Roadway Assets &amp; Conditions</strong></td>
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<tr>
<td>Maintenance Schedule</td>
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<tr>
<td>Weather Stations</td>
<td></td>
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<tr>
<td>ITS Assets</td>
<td></td>
</tr>
<tr>
<td>Safety Statistics</td>
<td></td>
</tr>
</tbody>
</table>

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**Open Transportation Data – Embracing Innovation in Information Sharing.** April 2012. Novavia Solutions.  
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## Open Transportation Data Sample: Modal

### Description Data

- **Transit**
  - Stop Locations
  - Schedules
  - ADA Access
  - On-time Performance

- **Biking**
  - Bike Lanes
  - Bike Sharing
  - Bike Parking
  - Bike Safety

- **Taxi**
  - Taxi Stations
  - Fares
  - Reservation Call-in Numbers
  - Typical Wait Times

- **Rideshare / Carshare**
  - Ridesharing Pickup Locations
  - Rates and Incentives
  - Carsharing Stations
  - User Ratings

### State / Predictive Data

- **Station Maintenance**
- **Arrival Times**
  - **Service Alerts**
- **Elevator / Escalator Status**
- **Closures & Detours**
- **Bike Availability**
- **Incidents & Special Events**
- **Parking Availability**
- **Taxi Locations**
  - **Fleet Availability**
- **Reservation Call-in Numbers**
- **Special Deals**
- **Wait Times**
- **Ridesharing Supply**
  - **Guaranteed Ride Availability**
  - **Ridesharing Demand**

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Challenges to Open Data

• Retooling city agencies to monitor, collect, & organize data
• Administrative, financial, & technical burdens of keeping data & software applications up-to-date and available
• Reliance on third-party developers for user interfaces
• Data illiteracy & the technological divide
• Aversion to full disclosure
Moving Beyond Navigation

• Current primary uses: traffic detection, vehicle location, & fleet management
• Open data can be used as an accountability tool
• Public agencies have a responsibility to assist the public in understanding the data. It’s not enough to just make it available. It must be discoverable and usable.
• Using the data to make informed choices
• Driver for local & regional infrastructure planning & investment
Contact Information*

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*This slide added post-presentation.