Data.gov and Open Data in the United States

Data.gov Team

April 2013

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Data.gov

- Provides instant access to ~400,000 datasets in easy to use formats
- Contributions from 180 agencies, UN, and World Bank
- Encourage development of innovative applications
- Drive innovation and knowledge use across the globe

US Digital Strategy

- Ensure that as the government adjusts to this new digital world, we seize the opportunity to procure and manage devices, applications, and data in smart, secure and affordable ways
- Unlock the power of government data to spur innovation across our Nation and improve the quality of services for the American people

WhiteHouse.gov/digitalgov

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Creating a Data Ecosystem

1. **Gather data**
   - from many places and give it freely to developers, scientists, and citizens
2. **Connect the community**
   - in finding solutions to allow collaboration through social media, events, and platforms
3. **Provide an infrastructure**
   - built on standards and interoperability
4. **Encourage technology developers**
   - to create apps, maps, and visualizations of data that empower people's choices
5. **Gather more data**
   - and connect more people

"A Strategy for American Innovation" published September 2009

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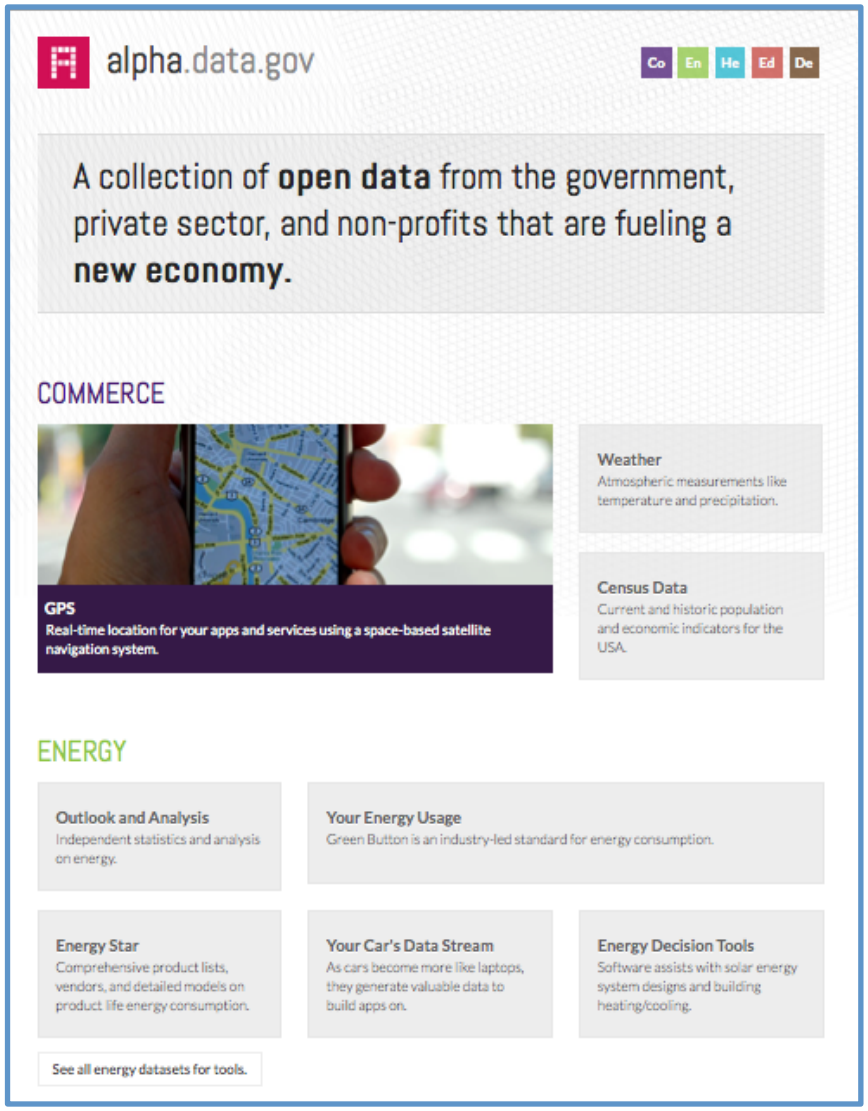
Stories Around Open Data



http://alpha.data.gov

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Open Communities

Community	
Developers	✓
Safety	✓
Energy	✓
Health	✓
Law	✓
Education	✓
Ocean	✓
Manufacturing	✓
Business	✓
Ethics	✓
States	✓
Counties	✓
Cities	✓
Sustainable Supply Chain	✓
+ many more…	

Energy Drives Innovation

- Energy.Data.gov connects innovators, industry, academia, and government at federal, state, and local levels

Challenges Spark Ideas

- Energy.Data.gov works with groups and challenges across the nation to innovate around federal data

CHALLENGES

Want to get involved in helping to solve an energy problem that you see in your home, community, or country? Join in on one of our challenges. Challenges range from brainstorming ideas to creating applications to proposing research. Not ready to jump in? Then come and see how others have responded and look at the winners of previous challenges.

Open Challenges

Code for Livability
The Partnership for Sustainable Communities is hosting a code-a-thon to brings together citizens, developers, and government personnel to work on solutions that bring sustainability to the forefront of peoples' everyday lives. Join us on January 21-22, 2011 to make a difference!

2011 ENERGY STAR National Building Competition: Battle of the Buildings
It's an energy savings battle as 245 buildings compete to see who can be the most efficient.

Resources:
- CBECS
- CEUS
- EnergyIQ
- Portfolio Manager
- NREL Renewable Energy Certificate and Green Power Markets

America's Home Energy Education Challenge
Participate in three great ways:
- Have your class or school join in the Home Energy Award by saving energy and win prizes for your school!
- Feeling artistic? Design a conservation plan and poster.
- Shall we play a game? Compete in the Energy Fitness Award with online games, quizzes and activities to earn prizes for you and your school.

Resources:
- EnergySmart
- EnergySavers.gov

Apps for the Environment
EPA challenges you to find new ways to combine and deliver environmental data in a new app. In the Apps for the Environment challenge, you have free reign to make an app that uses EPA data, addresses one of Administrator Lisa Jackson's Seven Priorities, and is useful to communities or individuals. EPA encourages you to use other environmental, energy, and health data too. The winners will be honored at a recognition event in Washington, D.C. this fall and the winning apps will be publicized on EPA's website. EPA is counting on you to come up with exciting and useful new apps!

Build your own challenge for energy efficiency
You can use this platform and process to employ ENERGY STAR tools and resources in your energy improvement efforts.

Rooftop Solar Challenge
Be part of a national effort to make clean solar electricity cost-competitive for your community.

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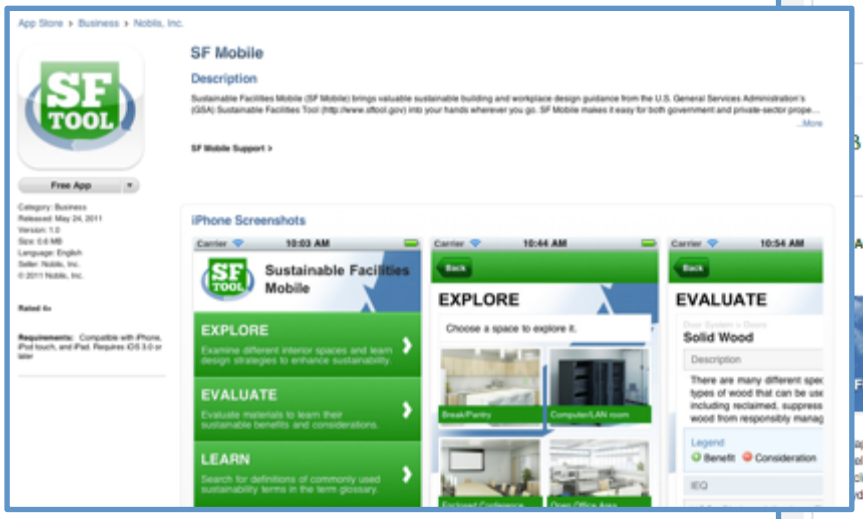
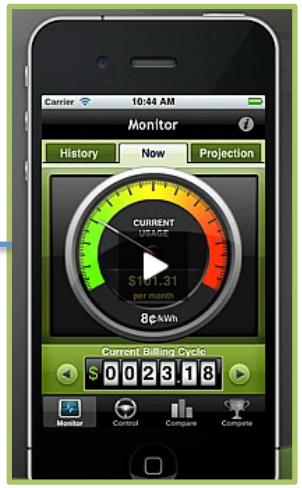
Data Drives Decisions

- Apps transform data in understandable ways to help people make decisions

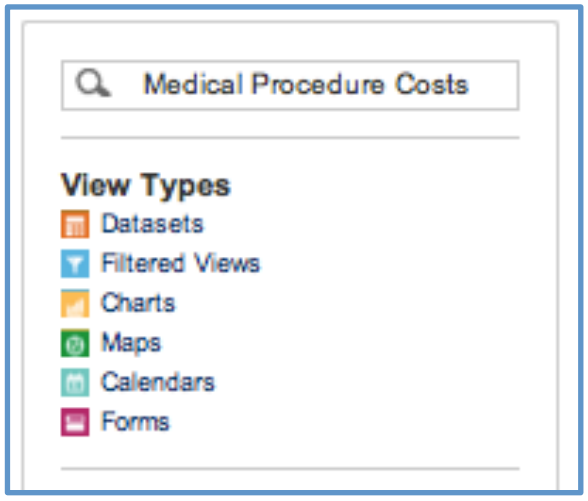


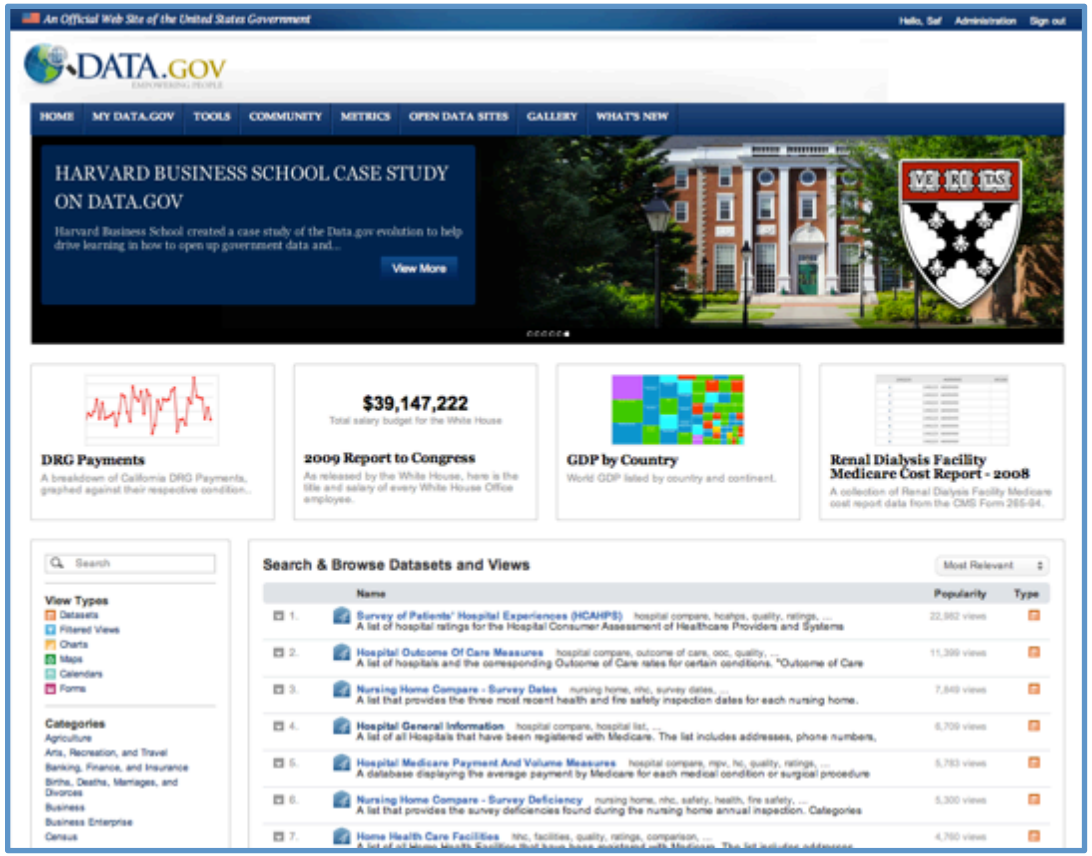
Green Button

- Anyone can download their home or business energy use data from their local utility
- Then use apps to manage their energy use to save money and go green
- More at Energy.Data.gov



Easy to Find Data





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Helping Others Through a Disaster

Restore the Gulf: Deepwater Horizon

Japanese tsunami, earthquake, and radiation monitoring

Data and apps from EPA via Data.gov

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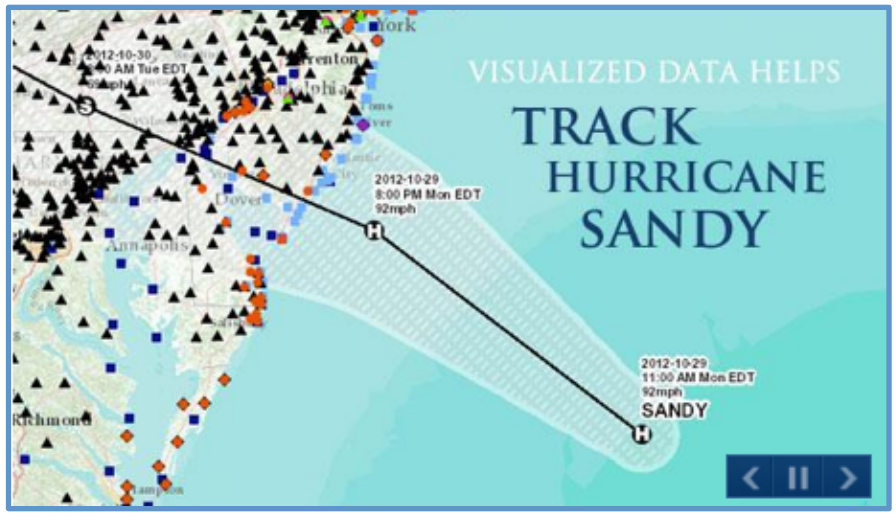
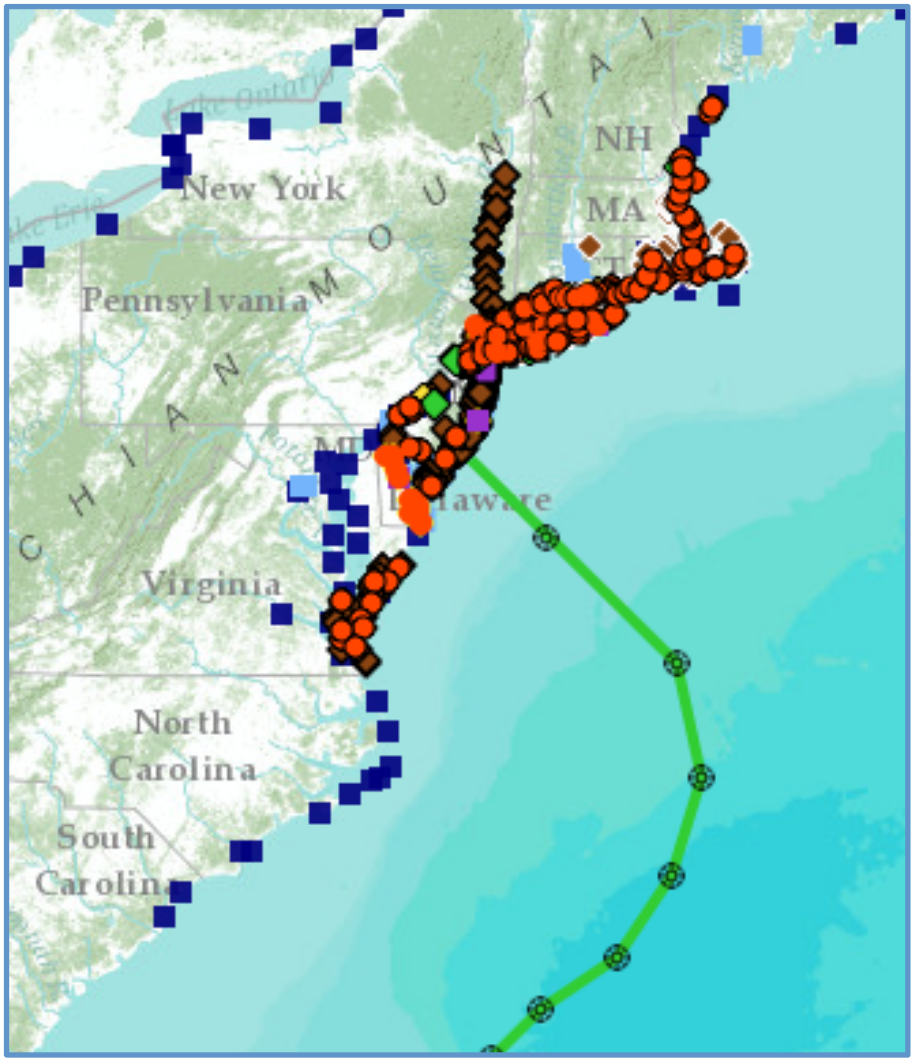
Hurricane Sandy





Early warnings save lives

Data from USGS via Data.gov

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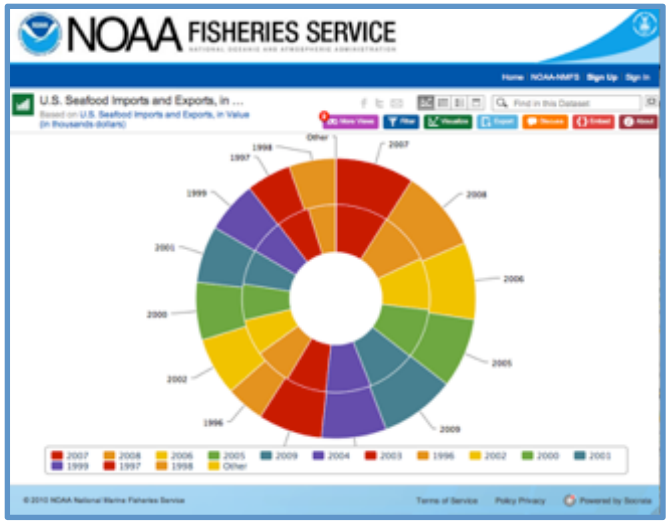
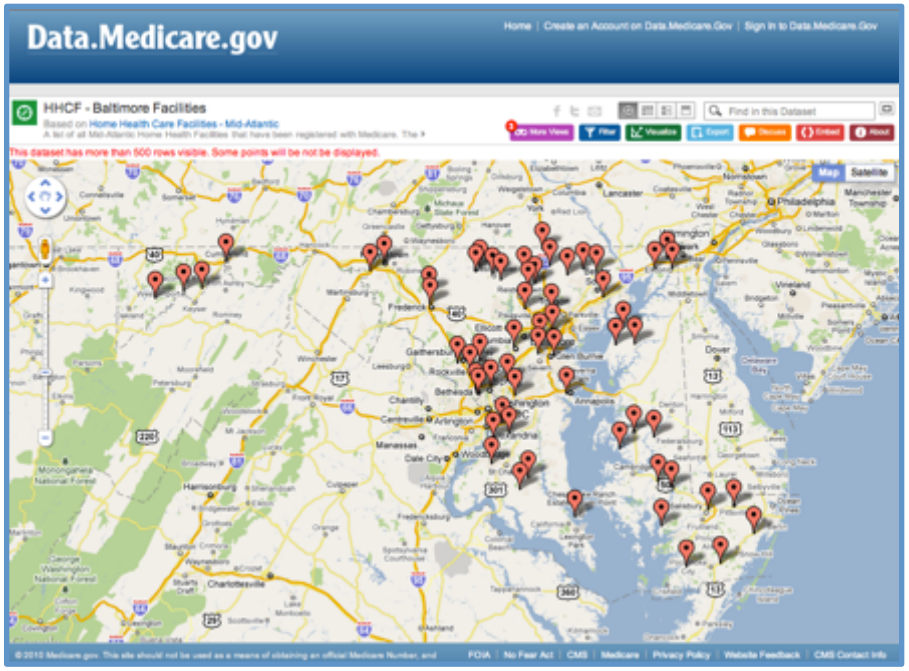
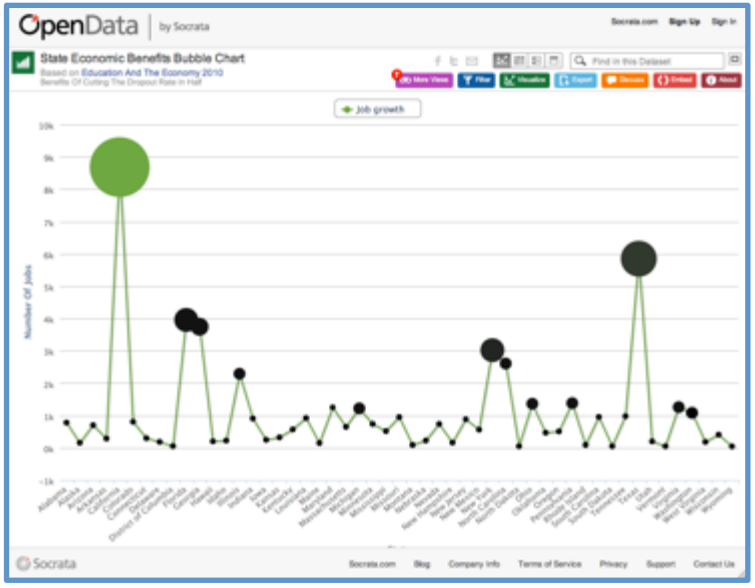
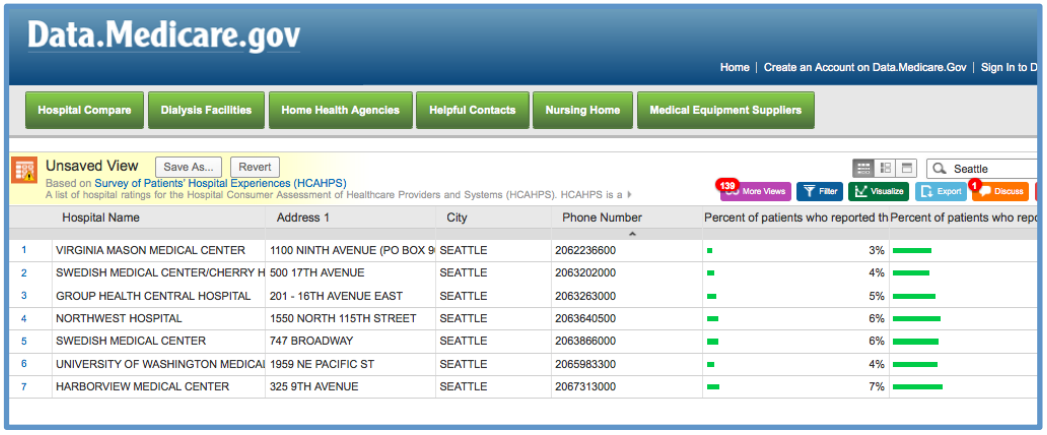
The Power of Visualizations









	Hospital Name	Address 1	City	Phone Number	Percent of patients who reported th	Percent of patients who repo
1	VIRGINIA MASON MEDICAL CENTER	1100 NINTH AVENUE (PO BOX 9	SEATTLE	2062236600	3%	
2	SWEDISH MEDICAL CENTER/CHERRY H	500 17TH AVENUE	SEATTLE	2063202000	4%	
3	GROUP HEALTH CENTRAL HOSPITAL	201 - 16TH AVENUE EAST	SEATTLE	2063263000	5%	
4	NORTHWEST HOSPITAL	1550 NORTH 115TH STREET	SEATTLE	2063640500	6%	
5	SWEDISH MEDICAL CENTER	747 BROADWAY	SEATTLE	2063866000	6%	
6	UNIVERSITY OF WASHINGTON MEDICAL	1959 NE PACIFIC ST	SEATTLE	2065983300	4%	
7	HARBORVIEW MEDICAL CENTER	325 9TH AVENUE	SEATTLE	2067313000	7%	

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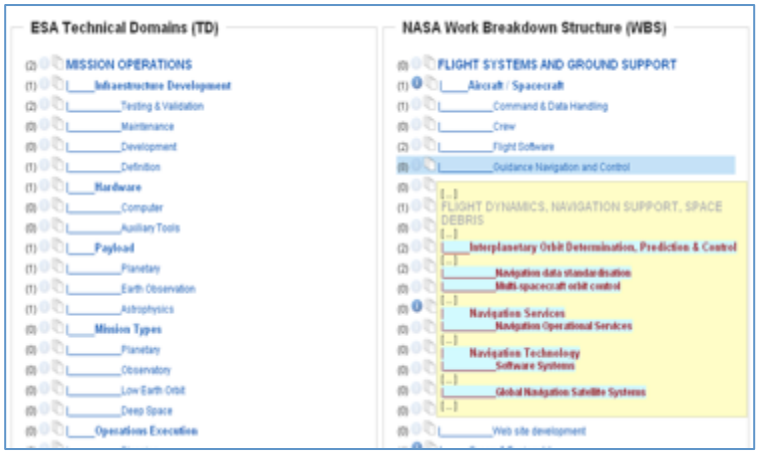

Powered Through Advanced Technologies

- Provides developers tools and raw data formats to develop new capabilities
- Partnership with
  - W3C: eGov Interest Group + activities, standards, and recommendations
  - RPI for research in semantic web and open linked data
- Data hosted in the cloud
- Open source platform
- Builds on ontologies developed in specific areas

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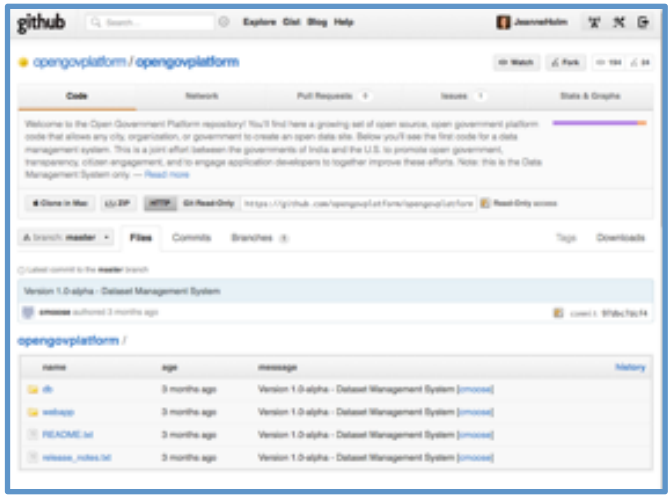
5 Star Data

US Open Government Action Plan

- In September 2011, President Obama announced at the UN General Assembly…
  - Contribute Data.gov as a platform (Government of India and the U.S.)
  - Foster communities on Data.gov
    - Health, energy, and law plus new communities in education, research and development, and public safety
- In September 2012, President Obama reported these actions delivered

Open Government Platform (OGPL)



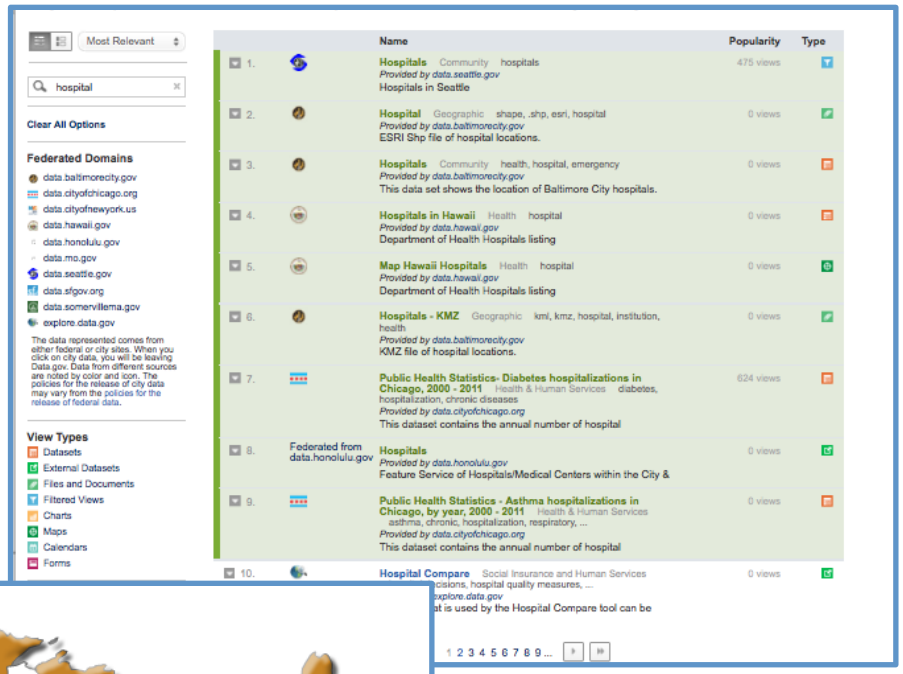
- Open source co-developed by Governments of India and US under a bilateral agreement with Department of State
- Data.gov is running on OGPL (as is India, Ghana, and soon Rwanda and Canada)
- Coordinating with open data providers, platforms, W3C, World Bank, CKAN, and open source developers worldwide
- Public comments and tracker on Github
- Drupal 6 operational code available now
- Drupal.org formal project process underway
- Email, Github, Facebook, Drupal.org, and Twitter for discussion
  - https://github.com/opengovtplatform
  - http://www.opengovplatform.org

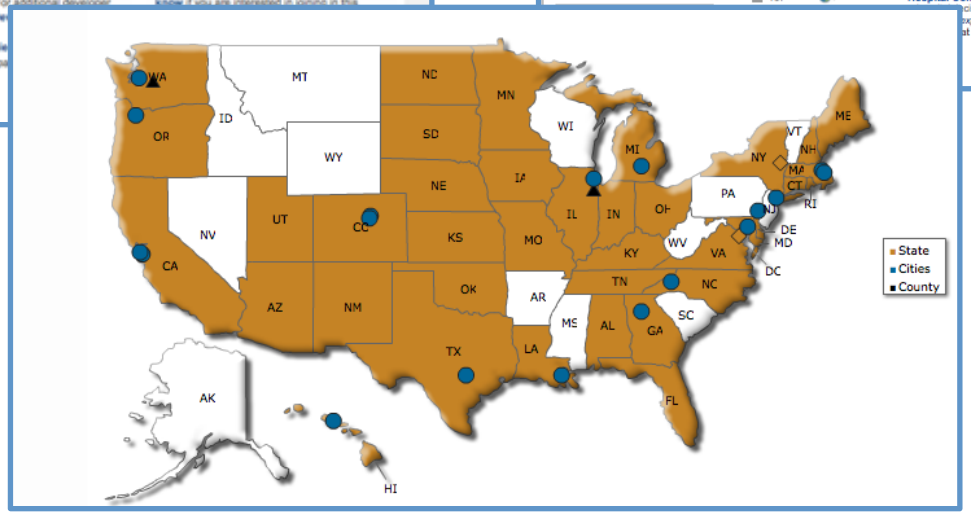
Data.gov Capabilities

- Present
  - Dataset Management
    - Workflow engine and metadata editor
    - Extended Dublin Core
  - Search
    - Keyword and faceted filtering
    - 6.7 billion triples
  - Geo
    - Search, harvest, and visualize via www.geoplatform.gov
  - Vocab.Data.gov
    - Vocabulary and schema engine for linked data
    - URIs for all health data

- Future
  - OGPL
    - Open source platform
    - Drupal + CKAN
  - API key registry
    - API key authorization
    - Application statistics
  - Enhanced search
    - Federated catalogs across agencies, cities, and topics
    - ADMS-based metadata
  - Vocab.Data.gov
    - Federated ontologies
    - URIs for all data

US Open Data at Cities, Counties, and States





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A Global Movement Has Begun to Provide Transparency and Democratization of Data

U.S. States	U.S. Cities and Counties	International Countries	International Regional
40	21	39	115

Don't see your site?
Update via @usdatagov

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The Path Ahead

- Bring data up and out of government to the public ★
- Make data accessible and linked ★★★★★
- Create communities to understand and apply data
- Connect and collaborate with small businesses, industry, and academia to drive innovation
- Continue to develop OGPL with community development
- Share with others to understand global issues

We need to securely architect our systems
for interoperability and openness from conception.
—Digital Government

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Let's work together to set the data free!

www.Data.Gov
@usdatagov