



Driving Innovation with Open Data

Chris Musialek in place for Jeanne Holm

Data.gov

February 9, 2012

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, platforms

3. Provide an infrastructure

- built on standards

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



- Provides instant access to over 400,000 datasets in easy to use formats
- Contributions from UN, World Bank, and 185 agencies
- Encourage development of innovative applications
- Drive innovation and knowledge use across the globe

Easy to Find Data

2009 ACRES AFS AQIS ARRA Air Force Air Major Air Minor Army Bankruptcy Brownfields CA
CAMDBS CERCLIS California Case Chemical Chemical Pollution
Chemical Release Chemicals Coast Guard Current Data DOC DUNS
Defence Defense Department of Commerce DoD EPA EPCRA EPCRA 313 FRS
FRS Data Final Rule Form A Form R HORS Hazardous ICIS IP LQG
Labor Labor Organization Lake Levels Marine Corps Marines NAICS NCOB NCES NEI NEPA
NLBB NPDES NPL National Science Foundation Navy PBT PCS RCRA RCRAINFO RFS RMP
Report Reservoir Levels Right to Know SDWIS SIC SGG SSTS STATE Superfund
TRI TRI 2009 Data TRI Data TRI Preliminary Data
TRI Report TRI Reporting TRI State Data TRIS TSD TVA
Lake Levels TVA Reservoir Levels Toxic Toxic Release Toxic Release
Inventory Toxics Toxics Release Toxics Release
Inventory Transporter U.S. Fish and Wildlife Service U.S. Patent & Trademark Office U.S. Patent
and Trademark Office US Patent and Trademark Office USAF USCG USMC USN USPTO Union United
States United States Patent and Trademark Office XML affiliation type aircraft bibliographic data biota
children community community right to know comparison correctional
facilities creditors critical habitat data.gov education emergency services energy environment
environmental interest type examine facilities facility facility registry identifier facility site
federal data download federal datasets file grant hc hoahps health nhc home health agencies
hospital compare hospital list hospital type industries industry innovation intellectual

View Types

- Datasets
- Filtered Views
- Charts
- Maps
- Calendars
- Forms

An Official Web Site of the United States Government


DATA.GOV
EMPOWERING PEOPLE

HOME MY DATA.GOV TOOLS COMMUNITY METRICS OPEN DATA SITES GALLERY WHAT'S NEW

HARVARD BUSINESS SCHOOL CASE STUDY ON DATA.GOV

Harvard Business School created a case study of the Data.gov evolution to help drive learning in how to open up government data and...

[View More](#)



DRG Payments

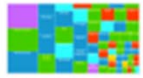
A breakdown of California DRG Payments, graphed against their respective condition...

\$39,147,222

Total salary budget for the White House


2009 Report to Congress

As released by the White House, here is the title and salary of every White House Office employee.



GDP by Country

World GDP listed by country and continent.



Renal Dialysis Facility Medicare Cost Report - 2008

A collection of Renal Dialysis Facility Medicare cost report data from the CMS Form 255-04.

View Types

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Categories

- Agriculture
- Arts, Recreation, and Travel
- Banking, Finance, and Insurance
- Births, Deaths, Marriages, and Divorces
- Business
- Business Enterprise
- Census

Search & Browse Datasets and Views

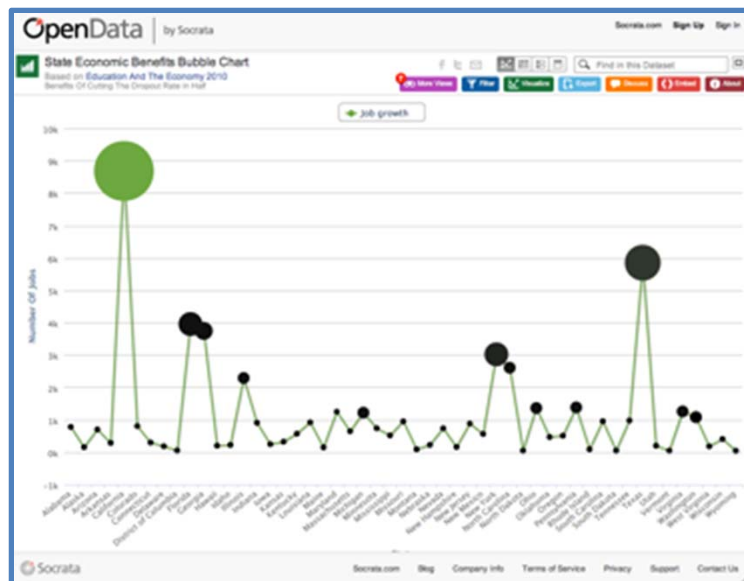
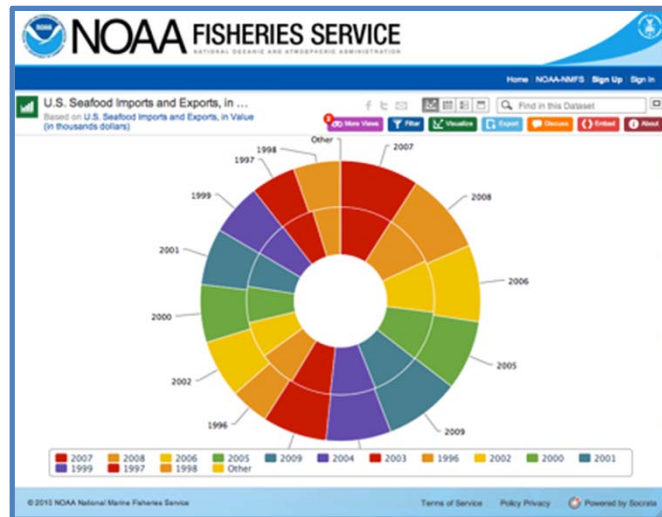
Most Relevant

Name	Popularity	Type
1. Survey of Patients' Hospital Experiences (HCAHPS) hospital compare, hospitals, quality, ratings, ... A list of hospital ratings for the Hospital Consumer Assessment of Healthcare Providers and Systems	22,962 views	
2. Hospital Outcome Of Care Measures hospital compare, outcome of care, ooc, quality, ... A list of hospitals and the corresponding Outcome of Care rates for certain conditions. "Outcome of Care"	11,309 views	
3. Nursing Home Compare - Survey Dates nursing home, nhc, survey dates, ... A list that provides the three most recent health and fire safety inspection dates for each nursing home.	7,840 views	
4. Hospital General Information hospital compare, hospital list, ... A list of all Hospitals that have been registered with Medicare. The list includes addresses, phone numbers,	6,708 views	
5. Hospital Medicare Payment And Volume Measures hospital compare, mps, hc, quality, ratings, ... A database displaying the average payment by Medicare for each medical condition or surgical procedure	5,780 views	
6. Nursing Home Compare - Survey Deficiency nursing home, nhc, safety, health, fire safety, ... A list that provides the survey deficiencies found during the nursing home annual inspection. Categories	5,300 views	
7. Home Health Care Facilities nhc, facilities, quality, ratings, comparison, ... A list of all Home Health Facilities that have been accredited with Medicare. The list includes addresses	4,780 views	

November 30, 2011

4

The Power of Visualizations



Data.Medicare.gov

Home | Create an Account on Data.Medicare.gov | Sign In to Data.Medicare.gov

Hospital Compare | Dialysis Facilities | Home Health Agencies | Helpful Contacts | Nursing Home | Medical Equipment Suppliers

Unsaved View | Save As... | Revert

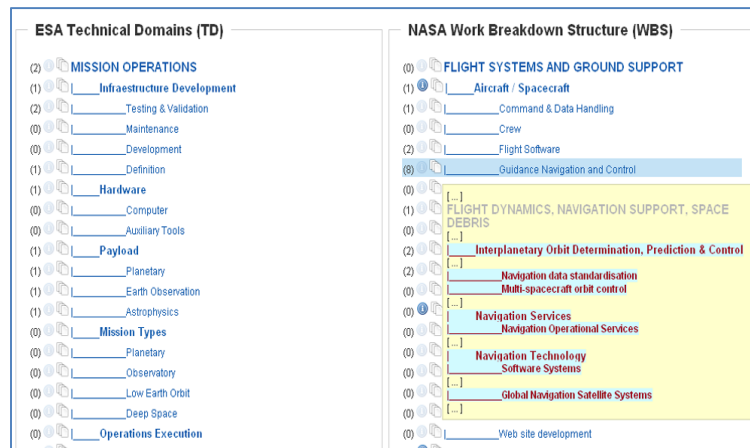
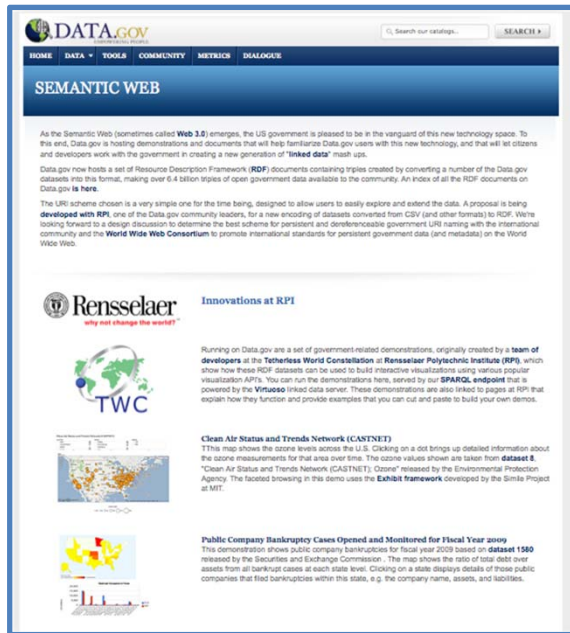
Based on Survey of Patients' Hospital Experiences (HCAHPS)

A list of hospital ratings for the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS). HCAHPS is a...

	Hospital Name	Address 1	City	Phone Number	Percent of patients who reported th	Percent of patients who rep
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%	



Powered Through Advanced Technologies



- Provides developers the tools and raw data formats to develop new capabilities
- Partnership with W3C (eGov Interest Group) and with RPI for research in semantic web
- Connected to other open data efforts across the world
- Data hosted in the cloud
- Open source platform
- Builds on ontologies developed in specific areas



Open Communities



Community

Restore the Gulf



Open Data



Semantic Web



Health



Law



Energy



Education

Ocean

Research and Development

Public Safety

Human rights

+ many more...

An Official Web Site of the United States Government Tuesday, January 18, 2011 | Text: A- A+ A | Share

DATA.GOV / HEALTH Login Sign Up

WELCOME TO THE HEALTH DATA COMMUNITY
You've found a public resource designed to bring together high-value datasets, tools, and applications using data about health and health care to support your need or better knowledge and to help you to solve problems. These datasets and tools have been gathered from agencies across the Federal government with the goal of improving health for all Americans. Check back frequently because the site will be updated as more datasets and tools become available.
[More Information](#)

HEALTH INDICATORS WAREHOUSE
[VIEW MORE](#)

Home **Apps** Data/Tools Apps Expl Other Data Sites Blogs Forums

Search This Community SEARCH

Challenges

2010 Health 2.0 DEVELOPER CHALLENGE

Pellentesque libero mauris, mollis at sollicitudin ut, mattis in lorem. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos. Sed lobortis congue elementum. Pellentesque elit tortor, feugiat eu iaculis et, porttitor at turpis. Vivamus vehicula nibh vel massa elementum blandit.

Forums

What's New

Learn about our newest high-value datasets.

- ClinicalTrials.gov: linking patients to medical research
- Genetics home reference
- MedlinePlus Health Topic Web Service
- PubChem

Blogs

Recent Blog Post

Test bloh 17jan 15:16 V4

Posted on: 1/17/2011
Test bloh 17jan 15:16 V4

*Champion: Todd Park
Chief Technology Officer
US Dept. of Health and
Human Services*

Publicizing Data to Innovators

- Challenges and code-a-thons
(health2challenge.org)
- Many innovator “meetups” and conferences
- Annual health data-paloozas
- Over 139 applications
- 50 new businesses
- Thousands of lives improved each day



Creating Apps That Improve Lives: Asthmapolis



Data.gov Quick Facts	May 2009	October 2011
Total datasets available	47	>400,000
Hits to Data.gov	0	>200 million
Apps and mash-ups by citizens and government	0	372 + 1113
RDF triples for semantic applications	0	6.7 billion
Dataset downloads	0	>2.0 million
Nations establishing open data sites	0	28
States offering open data sites	0	31
Cities in North America with open data sites	0	13
Open data contacts in Federal agencies	24	396
Agencies and subagencies participating	7	185
Communities	0	7
Community challenges	0	23

Energy Drives Innovation

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



- Energy.Data.gov connects works with challenges across the nation to integrate federal data and bring government personnel to code-a-thons

Challenges Spark Ideas

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



sustainability to the forefront of peoples' everyday lives. Join us on January 21-22, 2011 to make a difference!

Code for Livability

The Partnership for Sustainable Communities is hosting a code-a-thon to bring together citizens, developers, and government personnel to work on solutions that bring



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



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.



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!

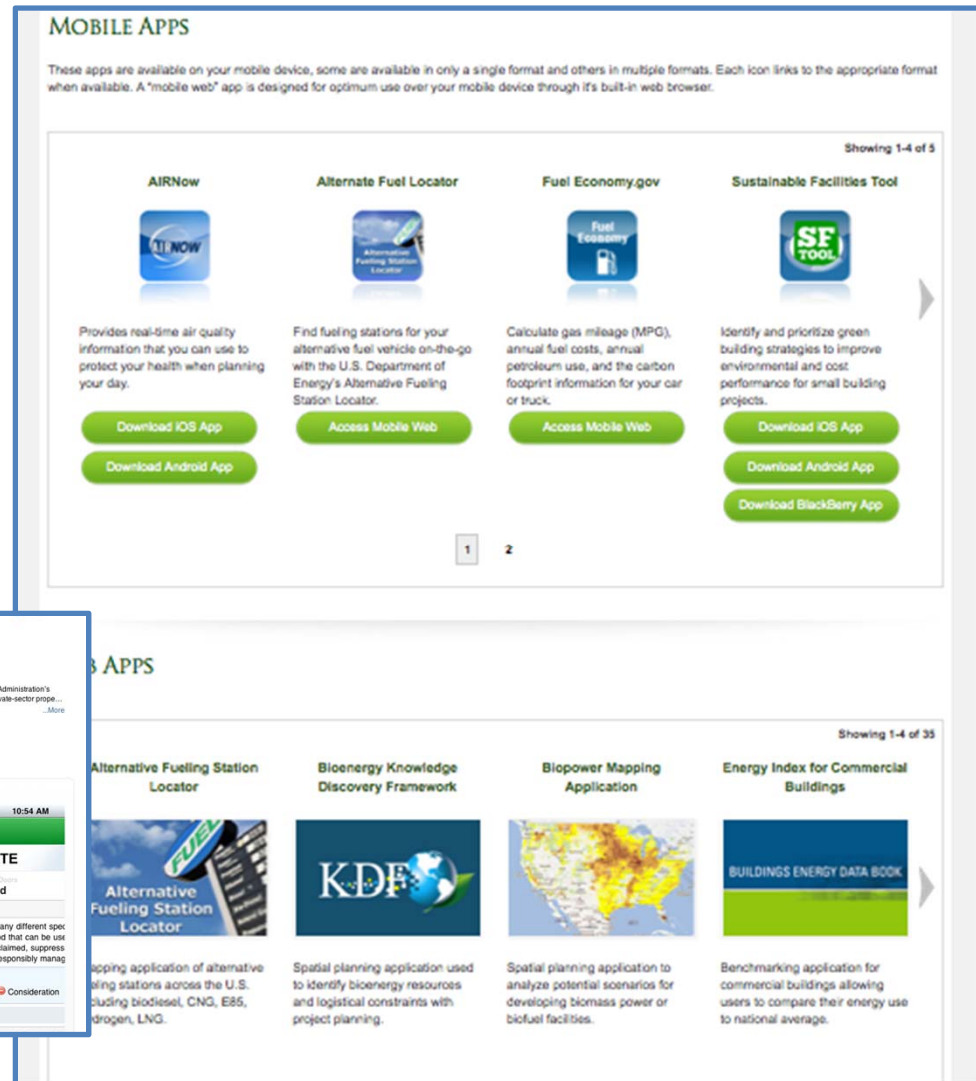
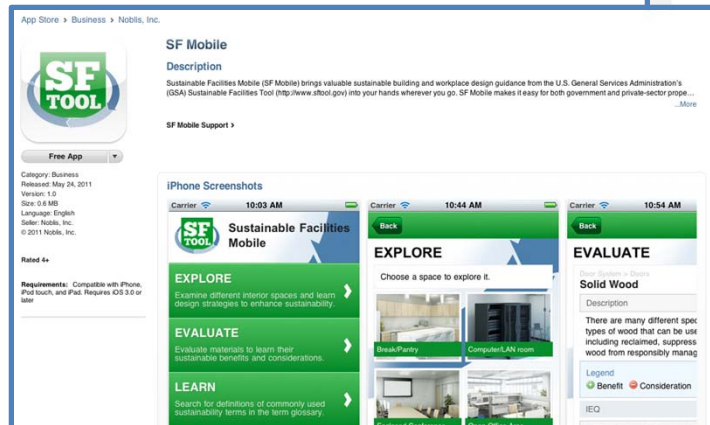


Rooftop Solar Challenge

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

Data Drives Decisions

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



The Path Ahead

- Bring data up and out of government to the public ★
- Make data accessible and linked ★★★★★
- Provide simple ways to visualize the data
- Create communities to understand and apply data
- Connect and collaborate with small businesses, industry, and academia to drive innovation
- Develop open source open government data platform with India for global use and further community development
- Share with others to understand global issues

Be the change you want to see in the world

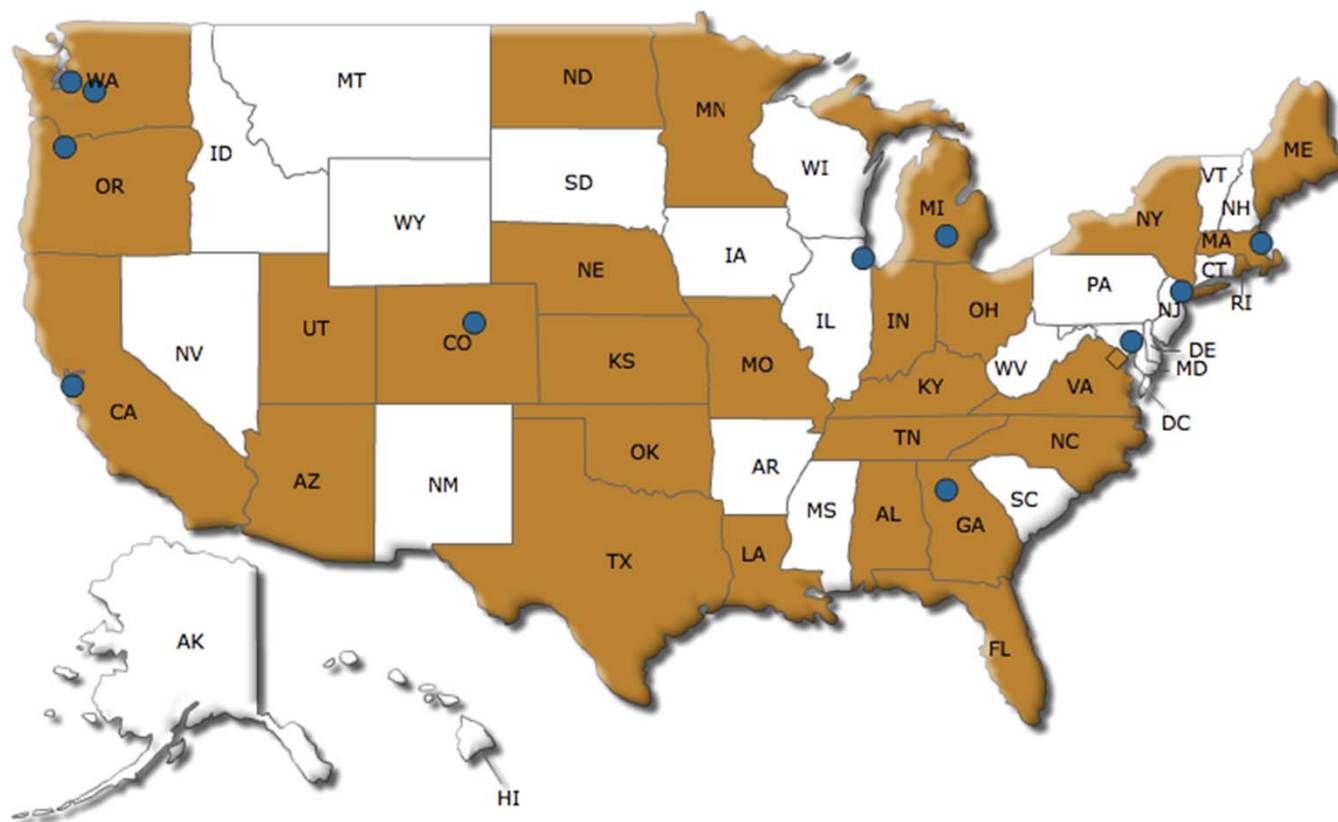
— *Ghandi*

US Open Government Action Plan



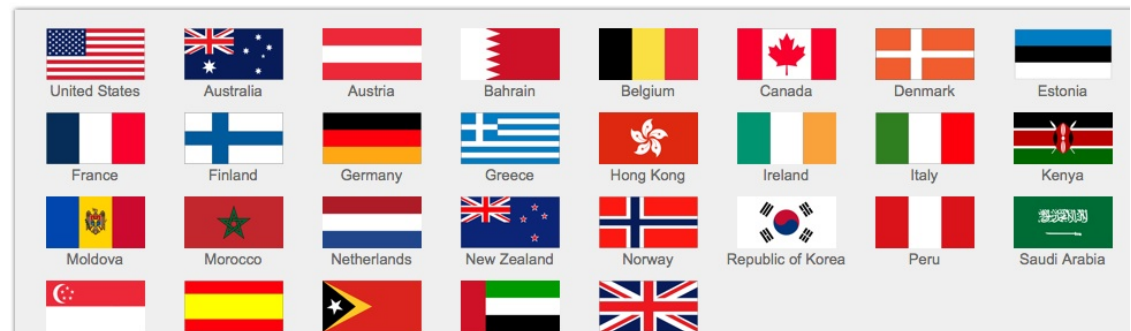
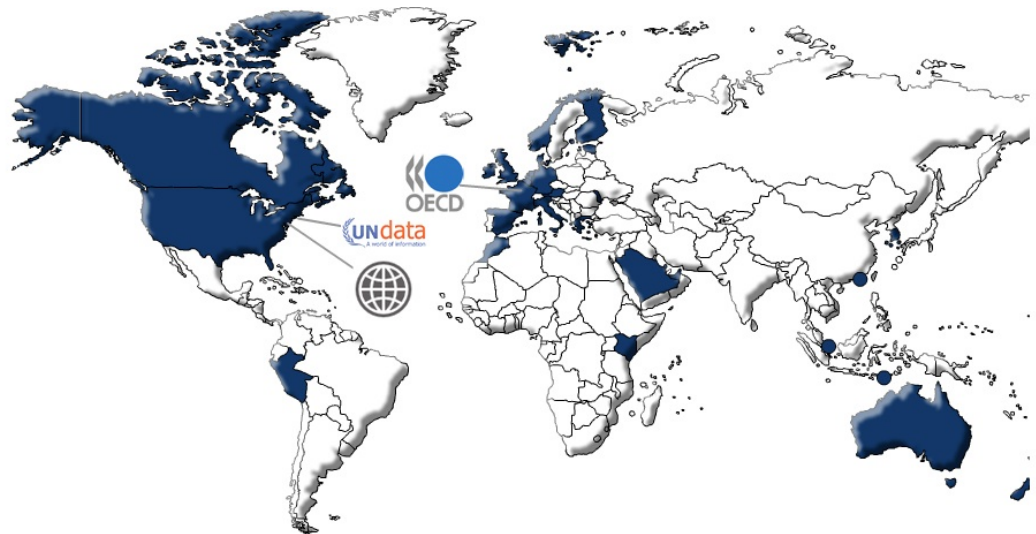
- On 20 September 2011, President Obama announced at the UN General Assembly...
- Contribute Data.gov as a platform
 - India and the U.S. creating open source platform
 - Will allow any country to create open data site
- Foster communities on Data.gov
 - Health, energy, and law plus new communities in education, research and development, and public safety
- Launch International Space Apps Competition
 - NASA and other space agencies will gather scientists and citizens
 - Use data for global challenges: weather impacts on global economy and depletion of ocean resources
 - A collaboration website will be created to facilitate citizen participation

Open Data at Cities, Counties, and States



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

U.S. States	U.S. Cities	Agencies and Subagencies	International
31	13	172	28



Don't see your site?
Update via @usdatagov



***Let's work together to set the
data free!***

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