



Open Data in Florida



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Executive Director



Open Data: AST's Role

The 2014 Legislature directed the Agency for State Technology (AST) in HB 7073 to:

- conduct a feasibility study that analyzes, evaluates, and provides recommendations for managing state government data in a manner that promotes interoperability and openness;
- ensures that, wherever legally permissible and not cost prohibitive, such data is available to the public in ways that make the data easy to find and use; and
- complies with the provisions of chapter 119, Florida Statutes.



Open Data

Open Data:

- is the concept of providing **public information** freely in a manner that allows anyone to use the data as they desire without restriction, and
- removes the state as proxy from interpreting the use of the data.

Although government maintains a large amount of data, it cannot always know what the public's use of that data will be.



Open and Flexible

- Open [source], includes
 - Open Data Commons - Open Database License
 - Open Data Commons - Attribution License
 - Open Data Commons - Public Domain Dedication and License
- Flexible
 - Presentation is not fixed
 - Uses machine readable formats



Examples of “Machine Readable Formats”

JSON:

```
{
  "firstName": "John",
  "lastName": "Smith",
  "isAlive": true,
  "age": 25,
  "address": {
    "streetAddress": "21 2nd Street",
    "city": "New York",
    "state": "NY",
    "postalCode": "10021-3100"
  },
  "phoneNumbers": [
    {
      "type": "home",
      "number": "212 555-1234"
    },
    {
      "type": "office",
      "number": "646 555-4567"
    }
  ],
  "children": [],
  "spouse": null
}
```

XML:

```
<?xml version="1.0" encoding="UTF-8"?>
<note>
  <to> Tove</to>
  <from>Jani</from>
  <heading>Reminder</heading>
  <body>Don't forget me this weekend!</body>
</note>
```

CSV:

```
Year,Make,Model,Description,Price
1997,Ford,E350,"ac, abs, moon",3000.00
1999,Chevy,"Venture ""Extended Edition""",,,4900.00
1999,Chevy,"Venture ""Extended Edition, Very Large""",,5000.00
1996,Jeep,Grand Cherokee,"MUST SELL!
air, moon roof, loaded",4799.00
```



How Did Open Data Start?

- Weather data
 - Businesses that used the data
 - the weather channel
 - weather.com
 - weather apps
- GPS
 - Created in 1973
 - Open to public in 1983



The Old Way

- **Web enabled business applications**
- **Publish data for a specific content**
 - Spreadsheets
 - PDF
 - Search results within websites
- **Publish answers to questions**
 - This requires the questions to be known
 - What does the agency do?
 - What services are available?
 - What is the money being spent on?
- **Answer the phone**
 - Requests for data
 - Chapter 119, F.S.
 - Requests for public services
 - Road repairs

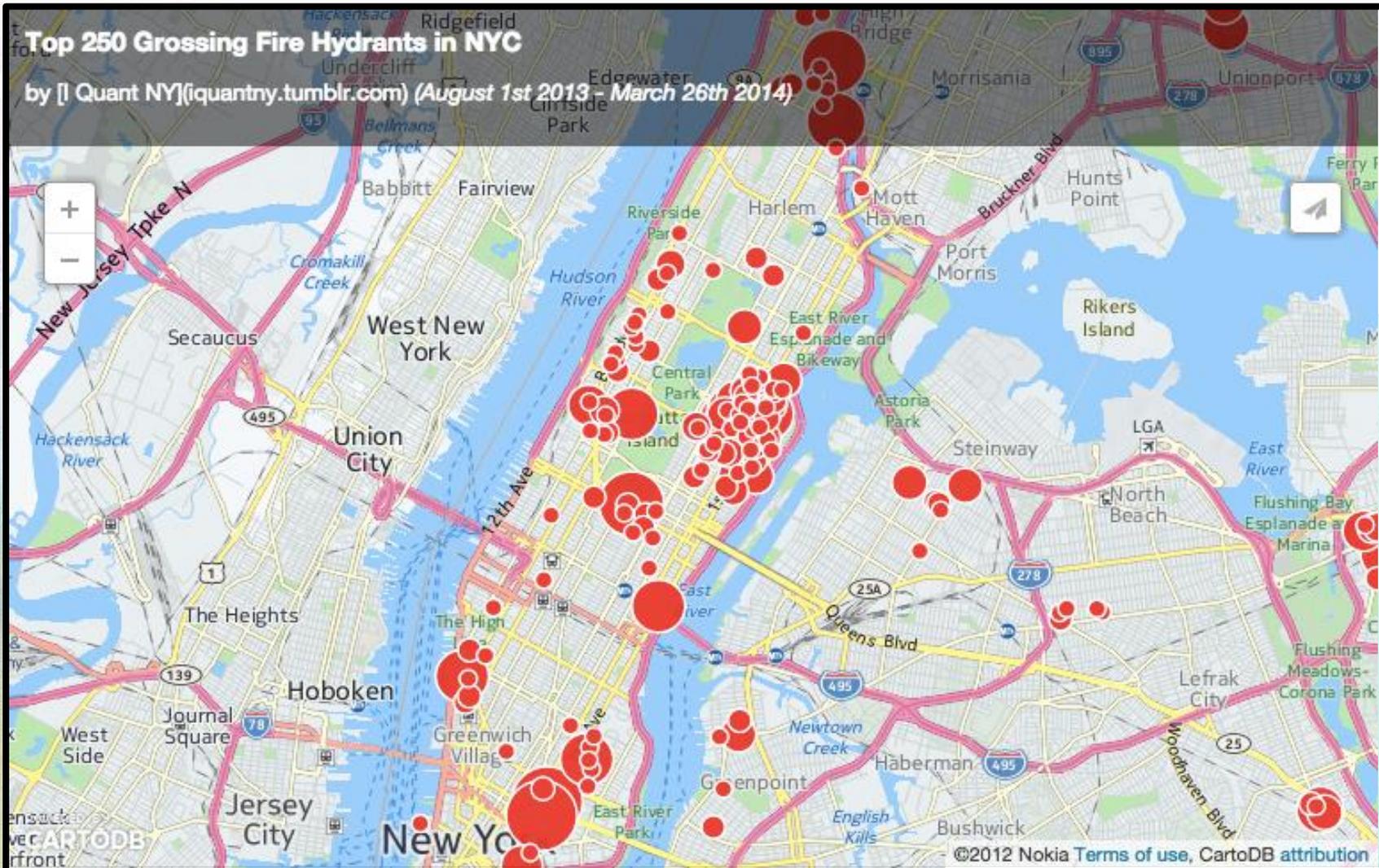


The New Way

1. Citizens leverage open data to report and take action
2. Businesses leverage open government data to make a profit!
3. Cities publish data to achieve public awareness on various issues such as crime
4. Analysis of budget data



1. Citizens' Action: NYC Fire Hydrant Parking Fines





Citizens' Action: NYC Hydrant That Generated \$33,000/Year

"While DOT has not received any complaints about this location, we will review the roadway markings and make any appropriate alterations"

Why does someone have to complain in order for the DOT to see problems like this? In fact, the DOT just redesigned every parking sign in New York because some of the old ones were considered confusing. But if this hydrant was news to them, it implies that they did not utilize the very strongest source of measuring confusion on our streets: NYC parking tickets.

Before Open Data:



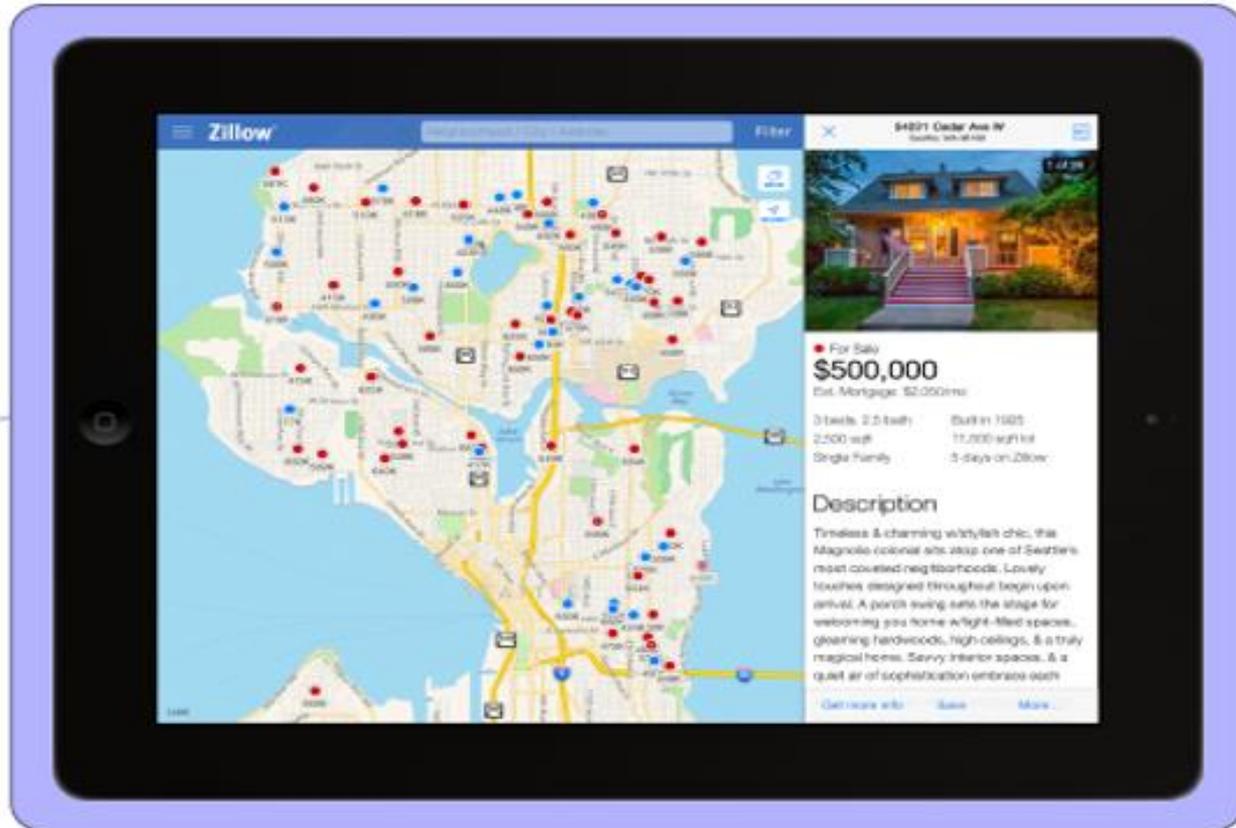


Citizens' Action: Repainted Parking Space After Report





2. Businesses Leverage Open Government Data to Make a Profit!

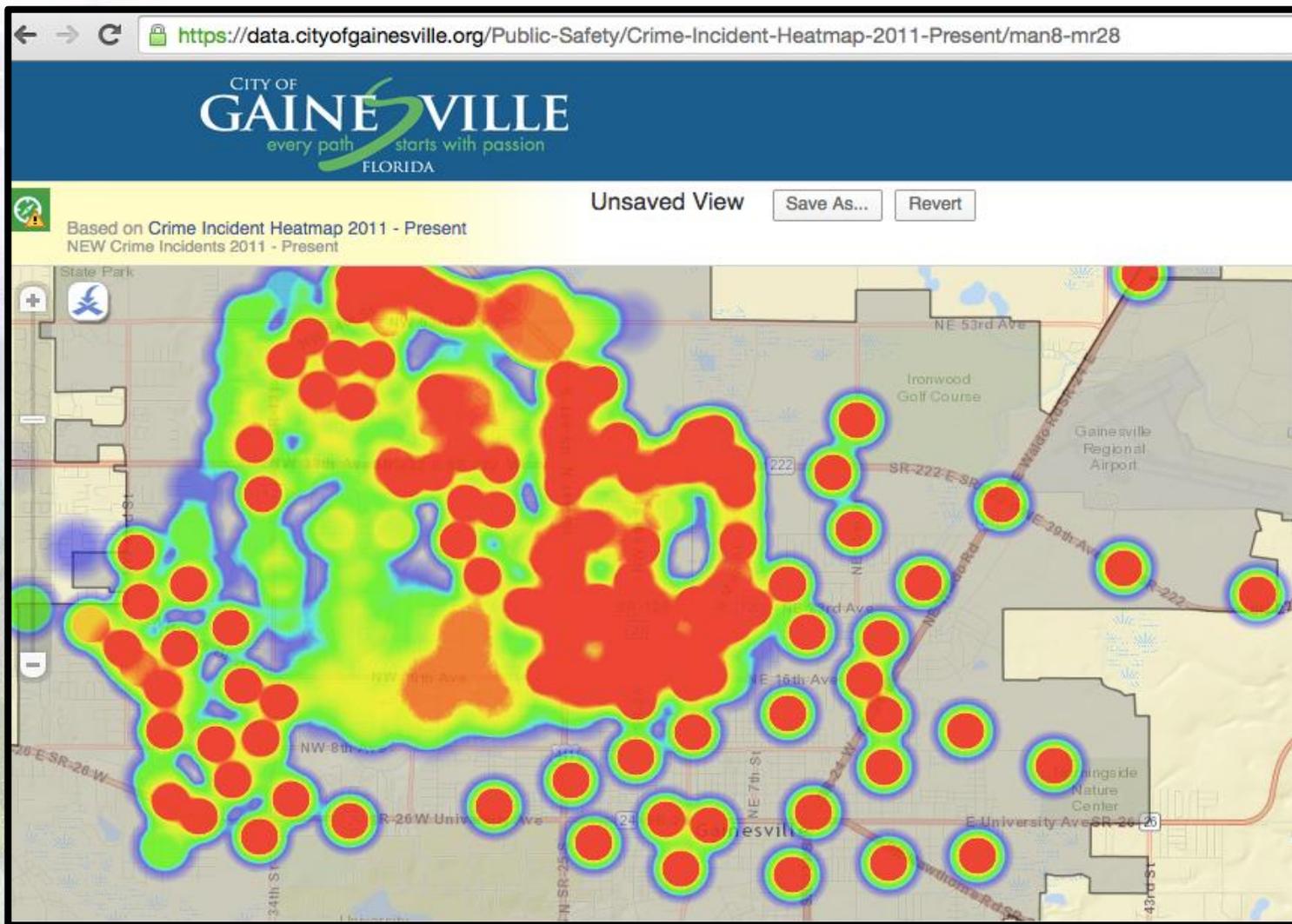


Zillow – Data Sources:

- Bureau of Labor Statistics
- Federal Housing Finance Agency
- Census Bureau
- American Community Survey



3. Cities Publish Data to Achieve Public Awareness





4. Analysis of Budget Data

whitehousebudget.socrata.com/#/operating/Department+of+Health+and+Human+Services//Centers+for+Medicare+and+Medicaid+Services/?y=3

U.S. Government

AGENCY
Department of Health and Human Services

FISCAL YEAR 2016

Operating Budget

The **\$4.00** trillion budget provides funds to the country's agencies.

AGENCIES IN U.S. GOVERNMENT

Sort by total

| Agency | Budget (Approximate) |
|--|----------------------|
| Department of Health and Human Services | \$1.09 trillion |
| Department of Education | \$250 billion |
| Department of Justice | \$200 billion |
| Department of State | \$150 billion |
| Department of Defense | \$140 billion |
| Department of Agriculture | \$100 billion |
| Department of Energy | \$80 billion |
| Department of Labor | \$70 billion |
| Department of Housing and Urban Development | \$60 billion |
| Department of Transportation | \$50 billion |
| Department of Veterans Affairs | \$40 billion |
| Department of the Treasury | \$30 billion |
| Department of Social Security Administration | \$20 billion |
| Department of Health and Human Services (Centers for Medicare and Medicaid Services) | \$1.09 trillion |

OPERATING BUDGET

Department of Health and Human Services

\$1.09 trillion 27.3% of Operating Budget

Department of Health and Human Services

What's it for? Where's it from?

14 BUREAUS IN THIS AGENCY

Sort by total

| Bureau | Budget (Approximate) |
|--|----------------------|
| Centers for Medicare and Medicaid Services | \$1.09 trillion |
| Administration for Children and Families | \$100 billion |
| National Institutes of Health | \$80 billion |
| Health Resources and Services Administration | \$50 billion |
| Centers for Disease Control and Prevention | \$40 billion |
| Indian Health Service | \$30 billion |
| Substance Abuse and Mental Health Services Administration | \$20 billion |
| Departmental Administration | \$10 billion |
| Food and Drug Administration | \$10 billion |
| Administration for Community Planning, Development, and Environmental Assistance | \$10 billion |
| Program Support Center | \$10 billion |
| Agency for Healthcare Research and Quality | \$10 billion |
| Office of the Inspector General | \$10 billion |
| Department of Health and Human Services | \$10 billion |

Show over time



Value to the State

- We don't have to write a user interface
 - Privately funded entities invest into extracting value from state data
- Public perception of government value
 - Seeing restaurant inspections on yelp website
 - Analysis of Traffic
- Validate policy assumptions
 - Compare data to initiatives:
 - Do free lunches reduce crime?
 - Do well lit streets increase property value?
- Increase economic activity



Restaurant Inspections on yelp Website

www.yelp.com/biz/boudin-bakery-and-cafe-san-francisco-7

Find local businesses, view reviews, photos, hours of operation and much more. Near San Francisco, CA

Home About Us Write a Review Find Friends Messages Tab Events Log In

Hey there! We've updated our Privacy Policy - you can check out the new version here. OK

Boudin Bakery & Cafe

★★★★☆ 1000 reviews

Write a Review Add Photos Add Photos Add Reviews

15 Bakes, Eatery, Sandwiches

100 Jefferson St
Larkin Landing
San Francisco, CA 94109
571 Taylor St, S. Golden St
Futamura's Wharf, North Beach, Sausalito
HI
Get Directions
T: (415) 393-1943
W: boudinbakery.com

Place an order and pick it up - no waiting in line. [View Menu](#)

Today: 8:00 am - 8:00 pm
Closed now

Full menu
Menu Price range: \$14-40

Health scores: We sort it all

Ingredients go deep for the past, but other times surprise

"I go here every time I go up to the Bay, and the clam chowder is simply amazing!" 1/14/10 review
\$7.99 Clam Chowder

"Clam chowder is a bread bowl with a fresh sandwich and a big bottle of Sauvignon blanc." 1/11/10 review

www.yelp.com/inspections/boudin-bakery-and-cafe-san-francisco-7

Find local businesses, view reviews, photos, hours of operation and much more. Near San Francisco, CA

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Boudin Bakery & Cafe Health Inspection

Boudin Bakery & Cafe

March 17, 2014 - Routine inspection

Violations

- Unreported or unregistered equipment or devices
- Report issued in inspection report not posted

Previous Inspections

| Date | Inspection Type | Violations | Score |
|--------------|-----------------|------------|-------|
| June 4, 2013 | Routine | 1 | 98 |

Health Score
96
out of 100

About Your Health Score

We use previous inspection data directly from your local health department. Current and most recent violations inspection scores as well as the time it takes to post that information go to us. It is possible that we may not display the most recent inspection data. Please report any unreported data and violations to your local health department via their website or call us.



Traffic Analysis

iquantny.tumblr.com/post/93845043909/quantifying-the-best-and-worst-times-of-day-to-hit

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AUGUST 5, 2014

Quantifying the Best and Worst Times of Day to Hit The Road in NYC

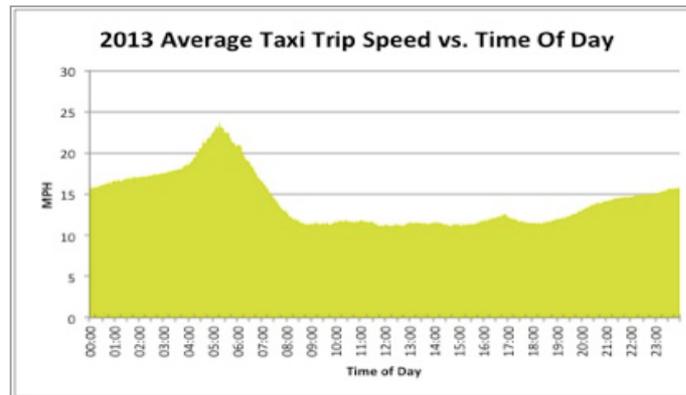
We've all been there. You have to be somewhere really early in the morning. Maybe its a flight. Maybe it's a meeting. And you decide to splurge for a taxi or car.

But how much time should you budget to avoid traffic? Can you beat traffic if you leave early enough?

I've always wondered when rush hour really is in NYC. So I turned to TLC taxi trip data to help answer the question. And thanks to [Chris Whong's FOIL request](#), we now have access to that [data](#) from 2013.

My first finding was that the average trip speed for the 172 million trips from 2013 was a whopping 13.3mph.

Next, for each minute of the day that a metered trip starts, I calculated the average speed for those trips. The results are below:





Increased Economic Activity

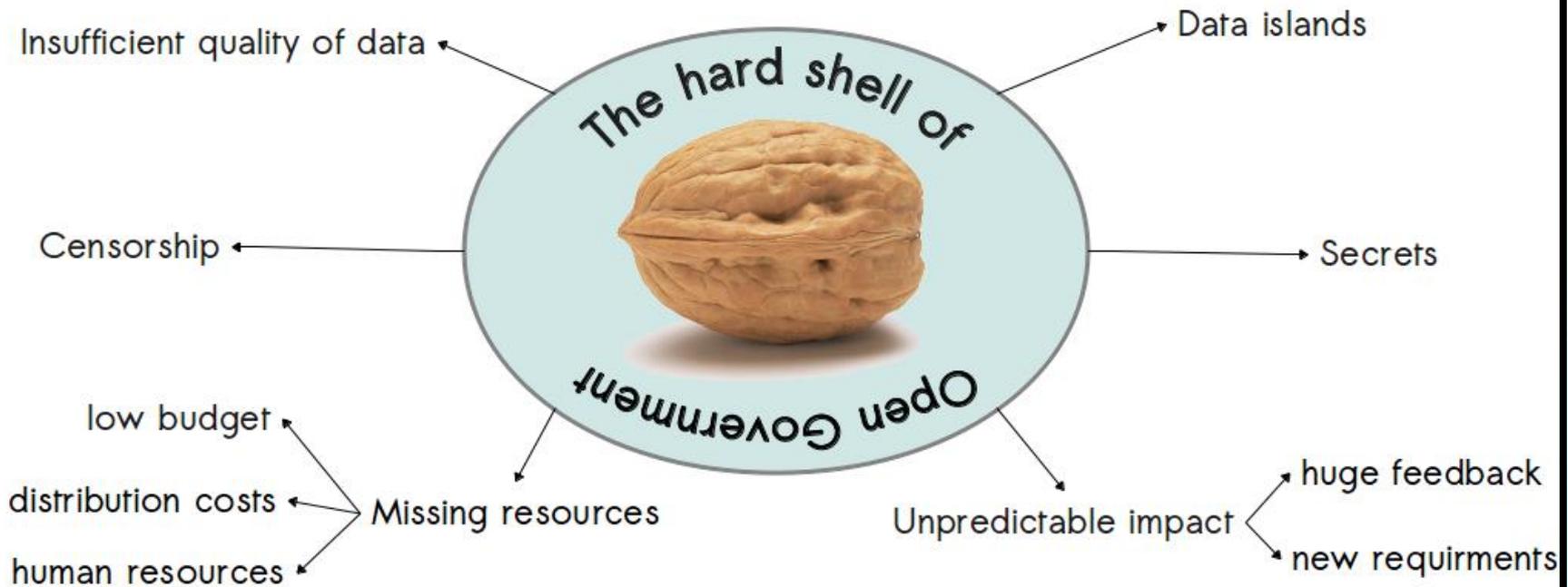
thegovlab.org/govlab-index-open-data-updated/

- Potential global value of open data estimated by McKinsey: **\$3 trillion annually**
- Potential yearly value for the United States: **\$1.1 trillion**
- Europe: **\$900 billion**
- Rest of the world: **\$1.7 trillion**
- How much the value of open data is estimated to grow per year in the European Union: **7% annually**
- Value of releasing UK's geospatial data as open data: **13 million pounds per year by 2016**
- Estimated worth of business reuse of public sector data in Denmark in 2010: **more than €80 million a year**
- Estimated worth of business reuse of public sector data across the European Union in 2010: **€27 billion a year**
- Total direct and indirect economic gains from easier public sector information re-use across the whole European Union economy, as of May 2013: **€140 billion annually**
- Economic value of publishing data on adult cardiac surgery in the U.K., as of May 2013: **£400 million**
- Economic value of time saved for users of live data from the Transport for London apps, as of May 2013: **between £15 million and £58 million**
- Estimated increase in GDP in England and Wales in 2008-2009 due to the adoption of geospatial information by local public services providers: **+£320m**
- Average decrease in borrowing costs in sovereign bond markets for emerging market economies when implementing transparent practices (measured by accuracy and frequency according to IMF policies, across 23 countries from 1999-2002): **11%**
- Open weather data supports an estimated **\$1.5 billion** in applications in the secondary insurance market – but much greater value comes from accurate weather predictions, which save the U.S. annually more than **\$30 billion**
- Estimated value of GPS data: **\$90 billion**

How Do We Get There?

OGD= Open Government Data

Barriers for implementation of OGD





Steps To Open Data

1. Define what data is public

- Public data is information that can be used, modified, and shared by anyone for any purpose
- Guiding principles:
 - A presumption of openness
 - Public data is everything except ‘restricted’ data
 - Accessible
 - Non-discriminatory and non-proprietary
- Restricted data – clearly categorized as restricted from public distribution based on laws, regulations, contracts, MOUs:
 - Florida Statute Chapter 119
 - Criminal Justice Information Security (CJIS)
 - Health Insurance Portability and Accountability Act (HIPAA)
 - Payment Card Industry (PCI)
 - Personal Identifiable Information (PII)
 - Family Educational Rights and Privacy Act (FERPA)
 - Trade secrets, executive clemency, contractual MOUs, etc.



Work With What You Have

2. Start with what you know

- AST surveyed 37 agencies to disclose data provided to public in a machine readable format and underlying database technology
- Data is exposed through websites
- Data is exchanged between systems' GIS data
- Utilize website analytics to identify trends
- Analyze customer contact data to find out what questions people call about
- Look at public records requests to identify what data is already being provided on an ad-hoc basis
- Focus on agency core mission: services and data
- Look at what has worked for others.
- Ask the public!



Open Data Standards

3. Key to success: adoption of open data standards:

- **Data Catalog Interoperability.** Enable universal federation of different open data catalogs using a standard catalog schema, based on the W3C (World Wide Web Consortium) Data Catalog Vocabulary (DCAT),
- **Data Portability Based on Standard Data Formats.** Standardize outputs including JSON, XML, and CSV, as well as RDF and other Linked Data standards. The goal is to move towards standard schemas that developers can use for popular data sets, based on real-world examples and collaboration between data publishers, and
- **Application Portability Based on Open Data Application Programming Interface (API) Standards.** Standardize the application programming interfaces (APIs) used to programmatically access open data, using established paradigms and protocols such as Representational State Transfer (REST), Hyper Text Transfer Protocol (HTTP), and Structured Query Language (SQL).

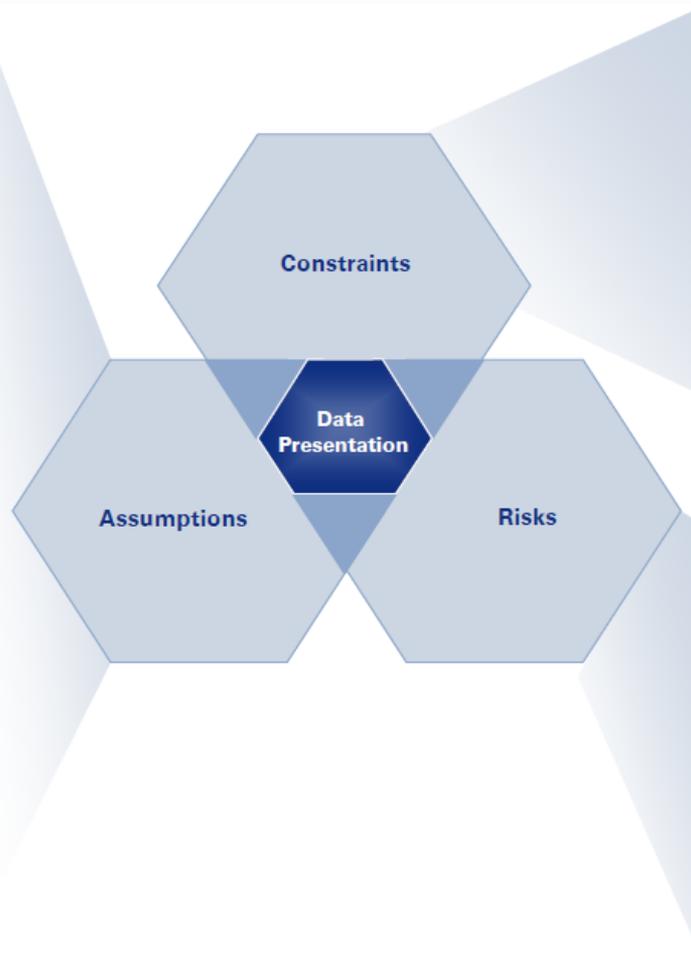
Source: <http://www.socrata.com/open-data-field-guide-chapter/the-data-plan/#four>



Data Presentation Standards

Assumptions

- Agency staff available
- Agency staff properly trained
- Data is available
- Data is properly formatted for upload
- Data is clean
- Restricted data is not published
- Data is readily machine-readable
- Governance framework in place
- Website implementation funded



■ **Constraints**

- Agency staff may be unavailable
- Agency staff may not be trained
- Data may not be available
- Data may not be properly formatted for upload
- Data may not be clean
- Data is not machine-readable
- Governance framework not in place
- Website implementation not funded

■ **Risks**

- No dataset management
- No data to publish
- Data publication "fails" and/or unusable
- Diminished data value
- Legal liabilities increase
- Excessive/costly effort to transform data
- Inappropriate dataset publication



Survey Recommendations

4. The State of Florida should leverage a SaaS, cloud-based solution rather than attempt to host an on-premises enterprise system to support its open data strategy and initiative.

Recommended Requirements:

1. Legislation to enable procurement for implementation of an open data portal
2. Establish and implement governance framework
3. Gather business and technical requirements
4. Issue and evaluate a solicitation for potential open data portal vendors
5. Implement a Florida open data portal
6. Continuous addition of datasets and continued evaluation of implemented open data portal success factors
7. Create a Chief Data Officer with oversight responsibility for the program
8. Staff a Data Scientist to focus on developing data views



Establish a Data Governance Board

5. Recommended organizational membership:

- The Data Governance Board shall be chaired by the Agency for State Technology Chief Technology Officer in an interim role until a member is elected chair from a participating agency.
- There will be annual election of the Data Governance Board Chair in order to improve enterprise ownership for Florida AST and all agencies.
 - The Chair must be an agency Data Steward
 - The Chair will act as a liaison between the Board and open data stakeholders, operating as a broker and not as an arbiter,
 - Florida AST will support the Board by maintaining the agenda for Board meetings, publishing meeting notices, and taking minutes.
- There will be 37 data stewards, one from each agency. Agency data steward coordination responsibilities include:
 - Agency data coordinator,
 - Agency legal counsel, and
 - Agency executive director or designee.

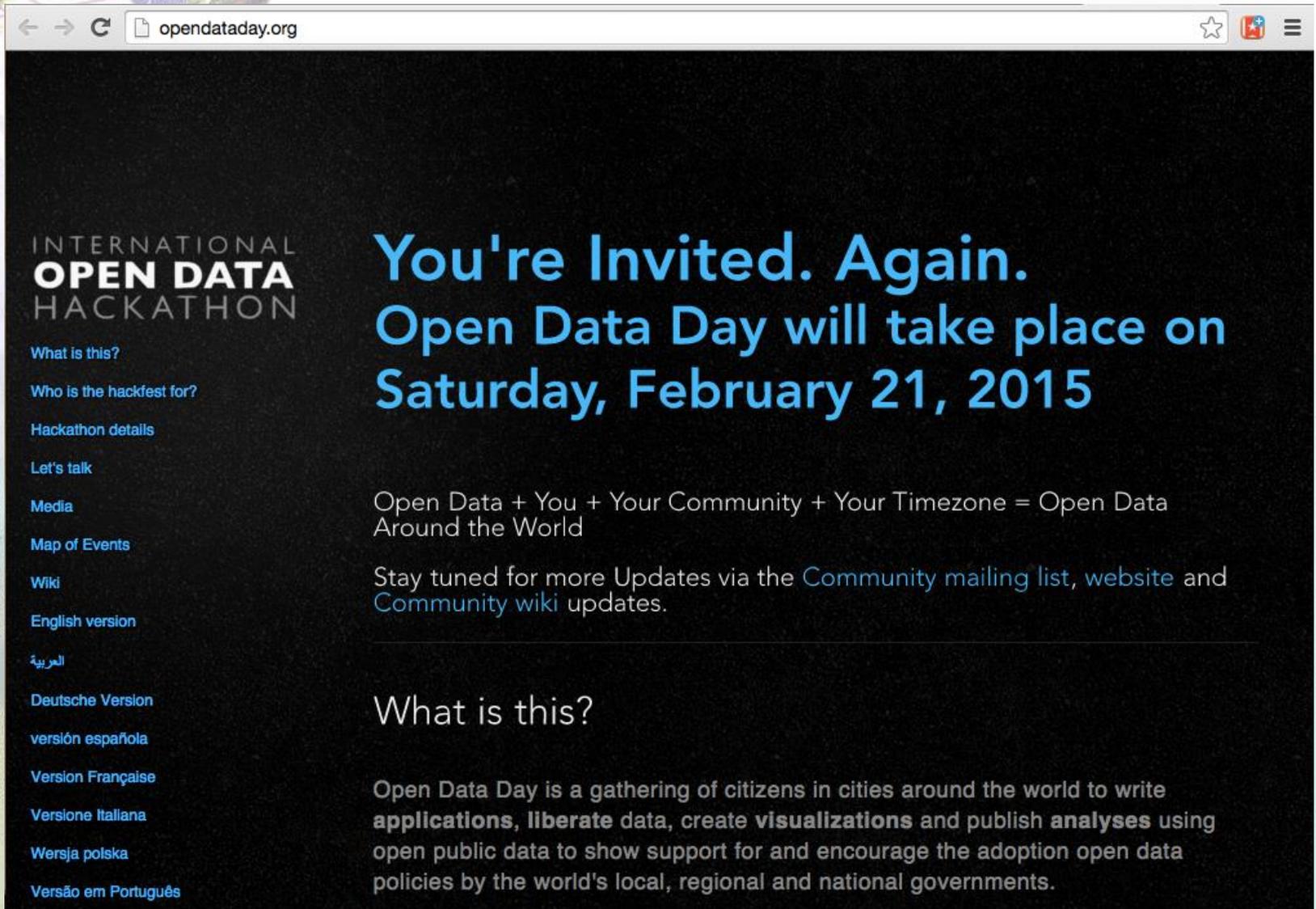


Hackathons (Ethical Hacking)

- **Open Data Day**
- **Contest for best open data ideas**
 - Best “APP”
 - The park bench navigation application
 - Best Analytics
 - Does a sidewalk increase property value
 - Best policy validation
 - Does free lunch reduce crime?
- **Take open data sets and come up with the most clever idea**
 - Purpose
 - Fraud detection
 - Public service
 - Data sets



International Hackathon

A screenshot of a web browser displaying the Open Data Day website. The browser's address bar shows 'opendataday.org'. The website has a dark background with light blue text. On the left side, there is a vertical navigation menu with various links. The main content area features a large heading and a paragraph of text.

← → ↻ opendataday.org ☆ + ☰

INTERNATIONAL
OPEN DATA
HACKATHON

[What is this?](#)

[Who is the hackfest for?](#)

[Hackathon details](#)

[Let's talk](#)

[Media](#)

[Map of Events](#)

[Wiki](#)

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[versión española](#)

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[Wersja polska](#)

[Versão em Português](#)

You're Invited. Again.

Open Data Day will take place on Saturday, February 21, 2015

Open Data + You + Your Community + Your Timezone = Open Data Around the World

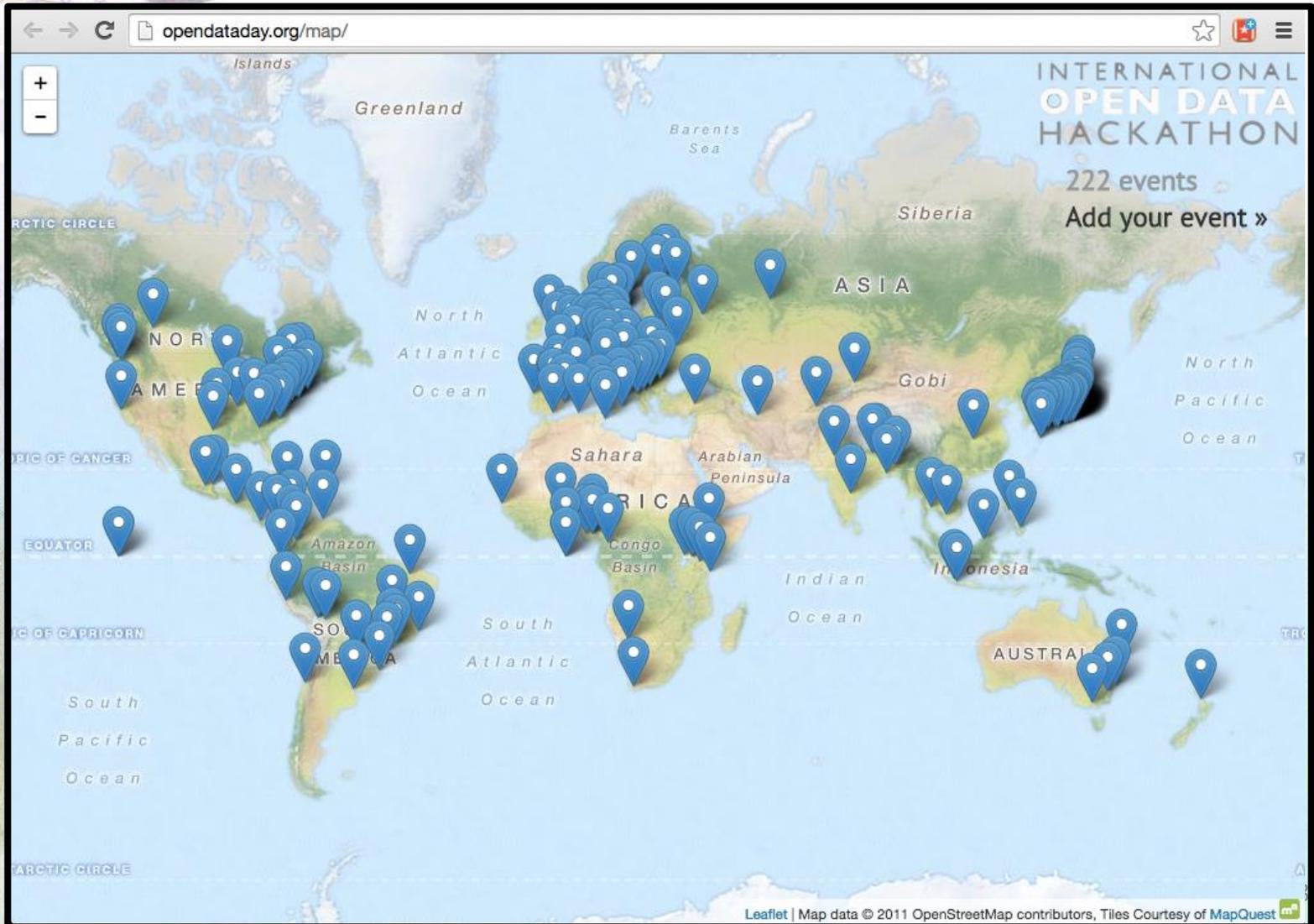
Stay tuned for more Updates via the [Community mailing list](#), [website](#) and [Community wiki](#) updates.

What is this?

Open Data Day is a gathering of citizens in cities around the world to write **applications**, **liberate** data, create **visualizations** and publish **analyses** using open public data to show support for and encourage the adoption open data policies by the world's local, regional and national governments.



Hackathon Participation





Create Clever Ideas

- **Purpose**
 - Fraud Detection
 - Public Service
- **Use data sets and other open “resources”**
 - Agency data sets
 - OpenMapData.com
 - Internet
 - Weather data
- **Recipes**
 - Christmas lights map
 - Data - Christmas light listings from newspaper
 - Other resources - Google Maps
 - Purpose - Drive around to see Christmas lights
 - Bear tracker
 - Data - Location of bear sightings
 - Purpose - Sustain bears in wilderness



Your Turn, What Would You Do With:

- Restaurant inspections
- Nursing home scores
- Christmas light addresses
- Property appraiser data
- Crime incidents
- Property parcel information
- Permits and licenses
- Location of public facilities
- Contracts
- Business listings
- Salary data
- Health data
- Electrical consumption
- Education data
- Campaign data
- Entertainment events



Summary

AST Goals:

- Create the framework to allow agencies to participate in open data.
- A single open data portal for the State of Florida.
- Establish governance and standards.
- Start with public data that we already have.
- Agencies analyze and validate appropriate information (open per Section 119, F.S.).
- Agencies cleanse data and provide metadata.
- Encourage agencies and public to use open government data.



Presentation Contact

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Kayren.McIntyre@ast.myflorida.com



License References (1)

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- See more at:
<http://opendatacommons.org/licenses/pddl/#sthash.LTYfv5qW.dpuf>



Other References

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<http://www.leg.state.fl.us/>