



Colorado's Open Data Ecosystem

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Agenda

This session is about understanding the open data resources available in Colorado and understanding what makes open data useful and valuable.

1. Overview of Colorado's open data ecosystem
2. Why do people look for open data
3. Where do people go to find open data
4. How do people use open data
5. What would make open data more useful

This session is meant to be a collaborative discussion rather than a dictated presentation, so your input is critical.

The Colorado Open Data Ecosystem

Collaborating with Citizens & Building Better Communities



Annual Hack-a-thons & Unconferences, and Bi-weekly Meetups



Code for Boulder Hack Night

Code for Denver Hack Night



Open Data Catalogs - almost 2,000 Data Sets



Why do you look for open data?

1. Academic research
2. Economic development
3. Grant writing, describing the environment
4. Grant making—determine where to allocate funds
5. Improve government decision making
6. Engage constituents
7. Show value of your program
8. Inform organizational change
9. Be able to do cross-dimensional analysis

10. App development

11. Personal interest

12. Media reports

- 13.??

Where do you go to find open data?

1. It's a long list
2. State agencies
3. Federal agencies
4. Census
5. Even with central state and federal catalogs, still need to go to multiple agencies to get everything you need
 - A. Federal data is often too generalized, and sometimes outdated
 - B. Even the "open" data is not always usable - need to hack the data
6. Independent nonprofit organizations
 - A. Some organizations duplicate government data
7. ESRI Arc GIS
8. Try to make a deal with private organizations
9. NHGIS (University of Minnesota)
10. Regional councils (i.e. DRCOG) are in a good position to collect data across jurisdictions
11. State data catalog: Colorado Information Marketplace
12. Your city's website
13. OpenColorado
14. Google search

What tools do you use with open data?

1. Excel spreadsheets
2. Tools built into open data sites
3. Database programs like MongoDB or Hadoop
4. Visualization tools (such as Ushahidi or Google Charts)

5. Microsoft Access
 - A. Sometimes get the data in Access files
6. Arc GIS (Desktop v Explorer)
7. CartoDB - pretty easy to use - you don't have to be tech savvy
8. R
9. QGIS
10. Tableau (a limited open version is available)
11. Some simple visualizations can be done easily
12. A lot of the tools are for exploration: figure out what you have first
13. MS text editor
14. Python
15. SPSS
16. Google Earth / Google Maps
17. Fusion tables
18. Online visualizations libraries

What would make open data more useful?

1. Data set standards and consistency across data sets
 1. If you're in a position to publish data, look for standards first
 2. Standards should be community-driven
 3. Better ETL / transformation tools; there's a good tool for open trails
2. A central location for data from multiple sources
3. More timely data
4. More important data (e.g. crime v abandoned trolley tracks)
5. Good metadata
6. Maintaining/updating data sets
7. APIs
8. Getting initial adoption can help drive better standards
9. Creating opportunities for the public to contribute to data sets
 - A. USGIS is doing some of this with the national map
 - B. Need to have good data - peer validation?
 - C. USPTO crowdsourcing patent application review
10. Respond to data providers: what is working, what needs to be fixed - show that the data is being used - data stories
 - A. Data providers need to make contact information readily available
11. DRCOG hosts open quarterly meetings - people can even call in
12. Take the data to the community - is the data relevant to the community?
 - A. Even better: listen to the community first and then look for data to support the issue and solutions
13. Remember that the data is the starting place
14. Ask the community for questions
15. Identify success criteria - how will you measure what's being used - what does success look like
16. Publish data in a standard location
 - A. Multiple avenues to data are ok, but they should talk to each other
17. You need different offerings for different audiences - don't expect a one-size-fits-all solution
18. Before buying a tool, understand what question you're trying to answer
19. If we start with the goal of improving communities and work backwards, what would the solution look like?

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