Building dashboards
with D3.js

GeOnG 2016

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cartong

Download

https://github.com/mmoreno-cart/acled_dashboard

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Plan

- ◐ Little presentation
  - – Dashboards
  - – Commercial solutions
  - – Open source alternative
    - • Data
    - • Read and process
      - – Crossfilter
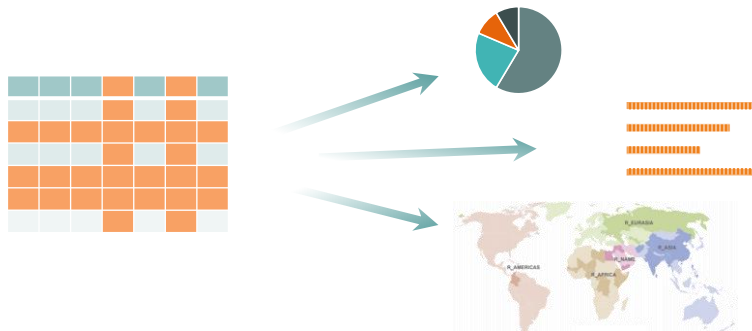   - • Visualization
- ◐ Hands-on exercise

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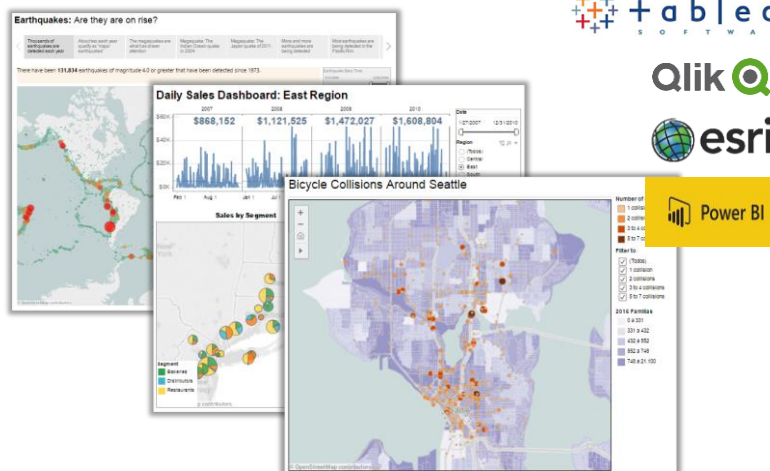
Dashboards

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Dashboards

- Data easier to understand
- Easier to reach colleagues
- Data management
  - Data edition
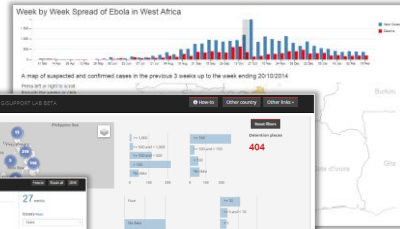 - Improve data quality
- Transparency
- ...

Commercial solutions

Open source alternative

More examples:
https://data.humdata.org/
http://reach-info.org/
http://simonbjohnson.github.io/

Comparison

Arguments for D3

D3	Tableau
Open Source	Proprietary / Paid
Web Standards Focused	VizQL Language
Real-Time	Automated Updates but Not Real-Time
Expansive Viz Options	Limited Viz Choices*

Arguments for Tableau

D3	Tableau
Lots of Coding	Data to Viz in Seconds
Complex	Easy to Use
Limited Native Data Connections	Native Data Connections
Manual Calculations	Automated Calculations
Limited Data Manipulations	Strong Data Manipulations

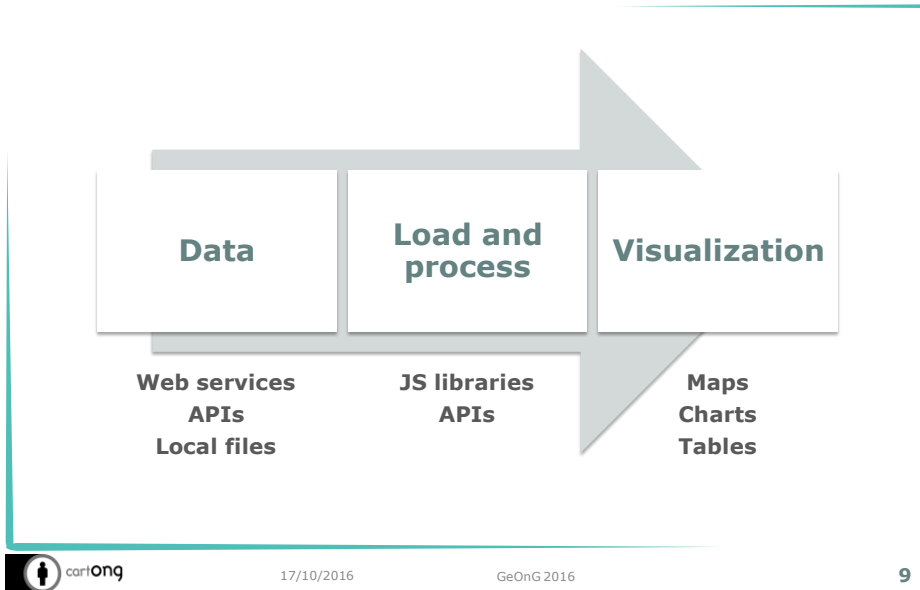🔘 https://youtu.be/0-xQtRr-nRg?t=336

→ Flexibility of D3/JavaScript

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Steps

Data	Load and process	Visualization

Web services	JS libraries	Maps
APIs	APIs	Charts
Local files		Tables

Data

Other public web services and APIs   **Local files**

CSV | JSON | GeoJSON | ...

Data

- http://docs.humdata.org/an-api-for-ebola-data/

- http://www.acleddata.com/data/acled-api/

- https://healthsites.io/
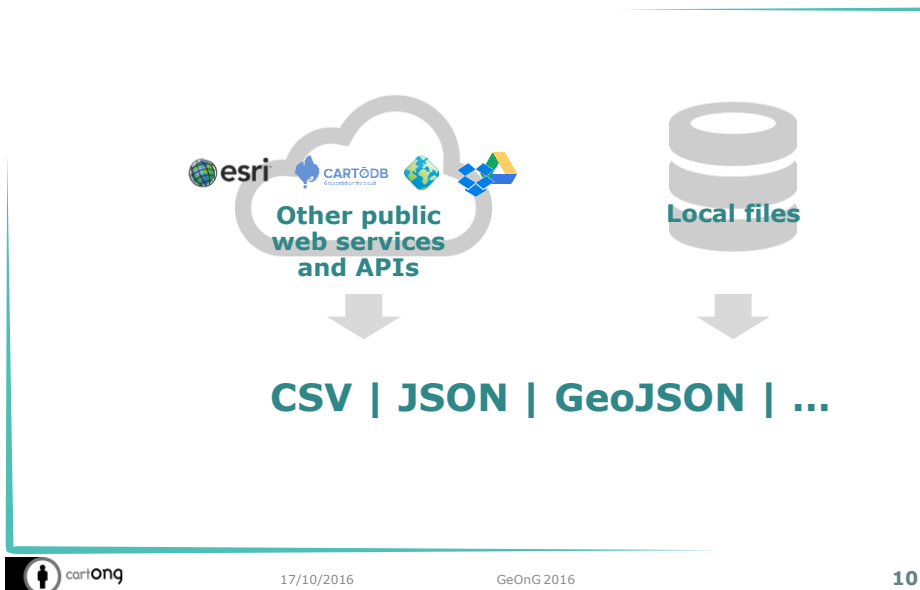
Read and process

Crossfilter

Extremely fast interaction (<30ms)
Coordinated views
More than a million registers

Fact: each register
Dimension: way you want to slice the data
Measure: value that you want to calculate

Crossfilter

Tutorial

http://blog.rusty.io/2012/09/17/crossfilter-tutorial/

Visualization

Cutting corners to meet arbitrary management deadlines

Essential

Copying and Pasting from Stack Overflow

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The Practical Developer
@ThePracticalDev
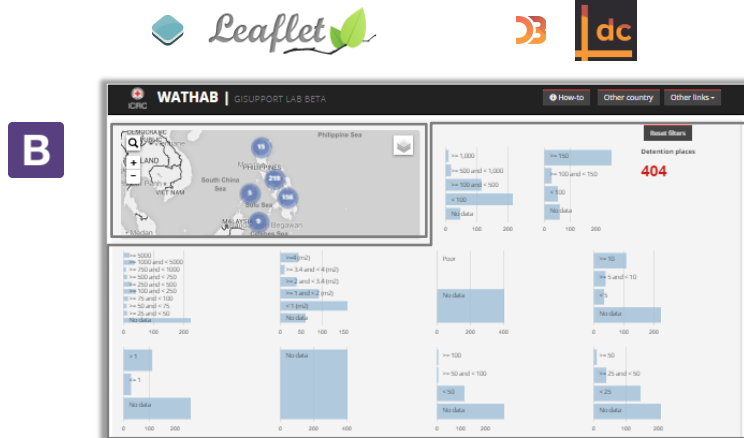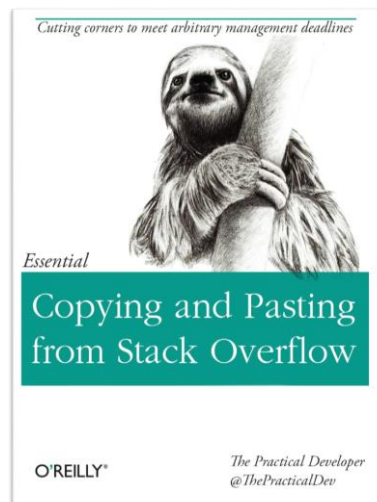
¹6eOn6

Exercise

Code
https://github.com/mmoreno-cart/acled_dashboard
Data
http://www.acleddata.com/data/acled-api/
https://gist.github.com/mmoreno-cart/

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Resources

- Bootstrap
- jQuery
- D3.js
- dc.js
- Crossfilter
- Datatables jQuery

- Leaflet
- Openlayers
- Mapbox
- Carto
- esri-leaflet

- turf.js
- proj4.js

- OSM styles
- OSM entities
- Overpass turbo

- Tilemill

- json.parser.online.fr

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Thank you

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