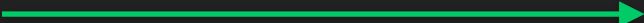

What is D3.js?

Mollie Pettit • @MollzMP

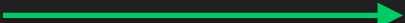
What is D3.js?

What is D3?

Does anybody know what D3 stands for?

Data-  - Info we want to visualize

Driven  binds **data** to the **documents**

Documents 

- webpage or web document
- Html, css, javascript, svg, etc.
- DOM (document object model)

What is D3?

Does anybody know what D3 stands for?

Data-

use data

Driven

to make stuff

Documents

on the web

So, D3 is...

A JavaScript library
that makes it easier
to use HTML, SVG, and CSS
to make interactive visualizations
in the browser

When to use D3

When to use D3

When D3 is a terrible choice...

When D3 is a terrible choice...

- quick exploratory data visualizations
- plots that:
 - are static
 - won't need to be updated
 - don't need to be interactive

When D3 is great choice!

- You want to utilize existing web frameworks (HTML, CSS, SVG, etc.) to create plots that:
 - are interactive on the user's end
 - are able to be updated
 - transition in a smooth and polished way
 - support large datasets while still being fast
 - can be fully customized to your needs
 - are easily reused

Data Viz Tool Hierarchy

Lower Flexibility
Higher Productivity

Higher Flexibility
Lower Productivity

Chartio, RAWgraphs

Dimple.js, plotly, Rickshaw, NVD3

D3

WebGL, Canvas, SVG

When D3 is great choice!

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Stuff covered in the course

the non-technical



- Data Visualization Design Fundamentals
- How well the brain can interpret various types of visualizations
- Ranking of visual encodings
- Intent behind visualizations
- Human-Centered Design Process

Stuff covered in the course

the technical



- Server requests and D3
- scales (x, y, color, size) and axes
- data joins (for binding data)
- general update pattern (for updating data)
- hovering, clicking, selecting user interactions
- transitions
- resizing your chart
- linking visualizations
- handling hierarchical data with `d3.nest()`
- code reusability



Stuff built in the course

- All kinds of visualizations (scatter, bar, line, maps, slope, tree maps*, bubble charts*) that are **interactive** and **updatable**
- Plots that
 - are visually linked to one another
 - resize based on browser window size
 - allow hover, clicking, and dropdown select interactions
 - transition all pretty-like
 - handle hierarchical data with `d3.nest()`
 - are displayed in small multiples
- Buttons and dropdown menus using javascript

Questions??
