

PBO Workshop

Getting Excited About Data-Driven Documents With d3

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November 2, 2011

Outline

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 - The Philosophy of d3
 - The Cruxes of Visualization
 - Background

- 2 Tour
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 - Additional Examples

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- d3 isn't just a charting library
- But, it does come with many examples and layouts
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- d3 doesn't pollute the global namespace
- d3 honors and web standards instead of reinventing them
- Authors' exposure to modern web standards are portable
- d3 does "one" thing and does it well, reminiscent of the UNIX spirit

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d3 Solves the Cruxes of Visualization

- Binds data and styled presentation elements
 - Provides control over the ability to update, append and remove these bonds
- Provides scales to define the mapping back and forth between data and pixel space
 - These scales include linear, log, power, discrete/continuous, banded, ordinal, etc.

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- Transitions between different style representations
- Targets the browser, making it ideal for quickly reaching a wide audience
 - And is there a story for getting to paper from there

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Background

- d3.js is loosely associated with the Stanford Visualization Group
- Supersedes the ProtoVis project, so resources found there can be relevant
- Mike Bostock is the primary author
- Open sourced on the highly active GitHub.com
- Only a year or two old

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Background, cont.

It largely targets the SVG element, which is being increasingly supported across all major browsers:

- Internet Explorer, 9+
- Chrome
- Firefox
- Safari
- iOS
- Android, 3.0+
- Opera, 9.5+

It should be noted that JavaScript has had huge investments in increasing its performance recently

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The Author's Tour

A Tour

Additional Examples

- Box plot - quintile distribution of a single variable
- Bullet - considered a best-practices replacement for gauge charts