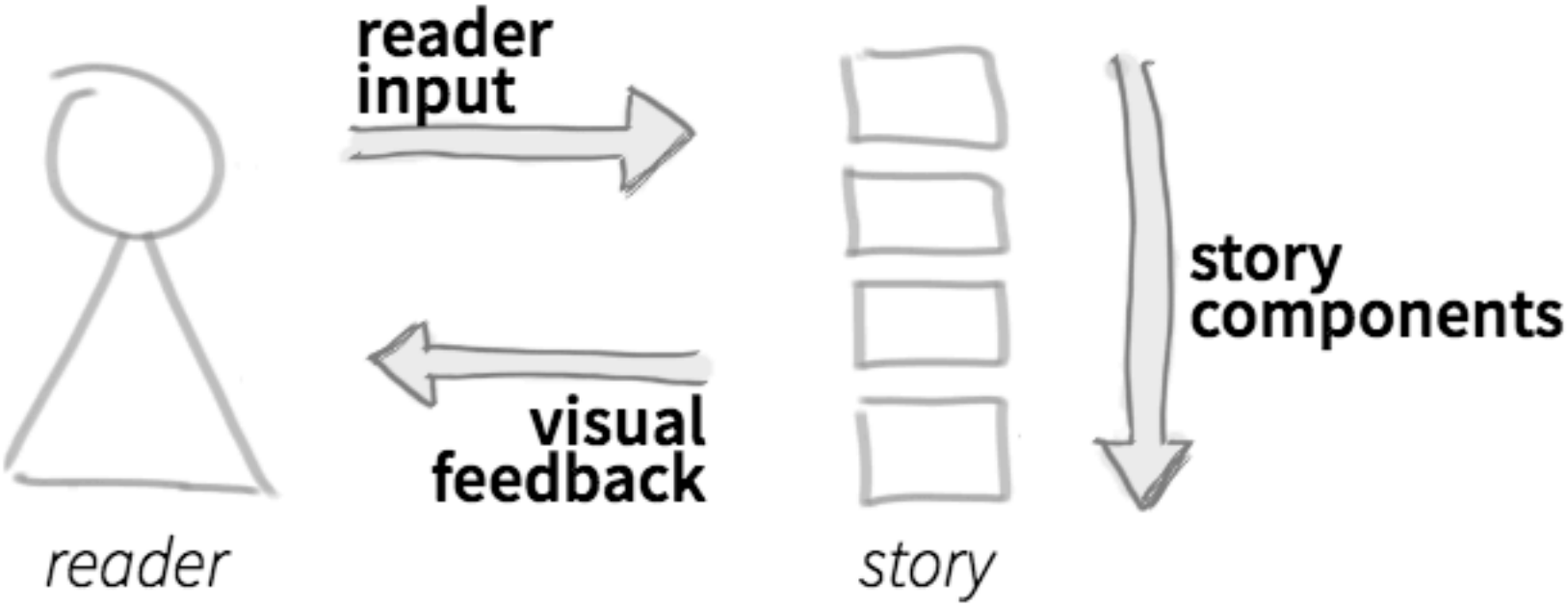
Narrative Navigation



Source: McKenna et al. 2017, Visual Narrative Flow: Exploring Factors Shaping Data Visualization Storytelling Experiences. EuroVis.

3 Types of Navigation Input

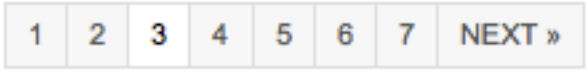
- Click, tap, or keyboard press on a series of buttons
- Scrolling down or across page
- Select & slide

Based on McKenna et al. 2017, Visual Narrative Flow: Exploring Factors Shaping Data Visualization Storytelling Experiences. EuroVis.

Feedback on Navigation Progress

- Text / Buttons
- Dots
- Other visual feedback (e.g., map)

1



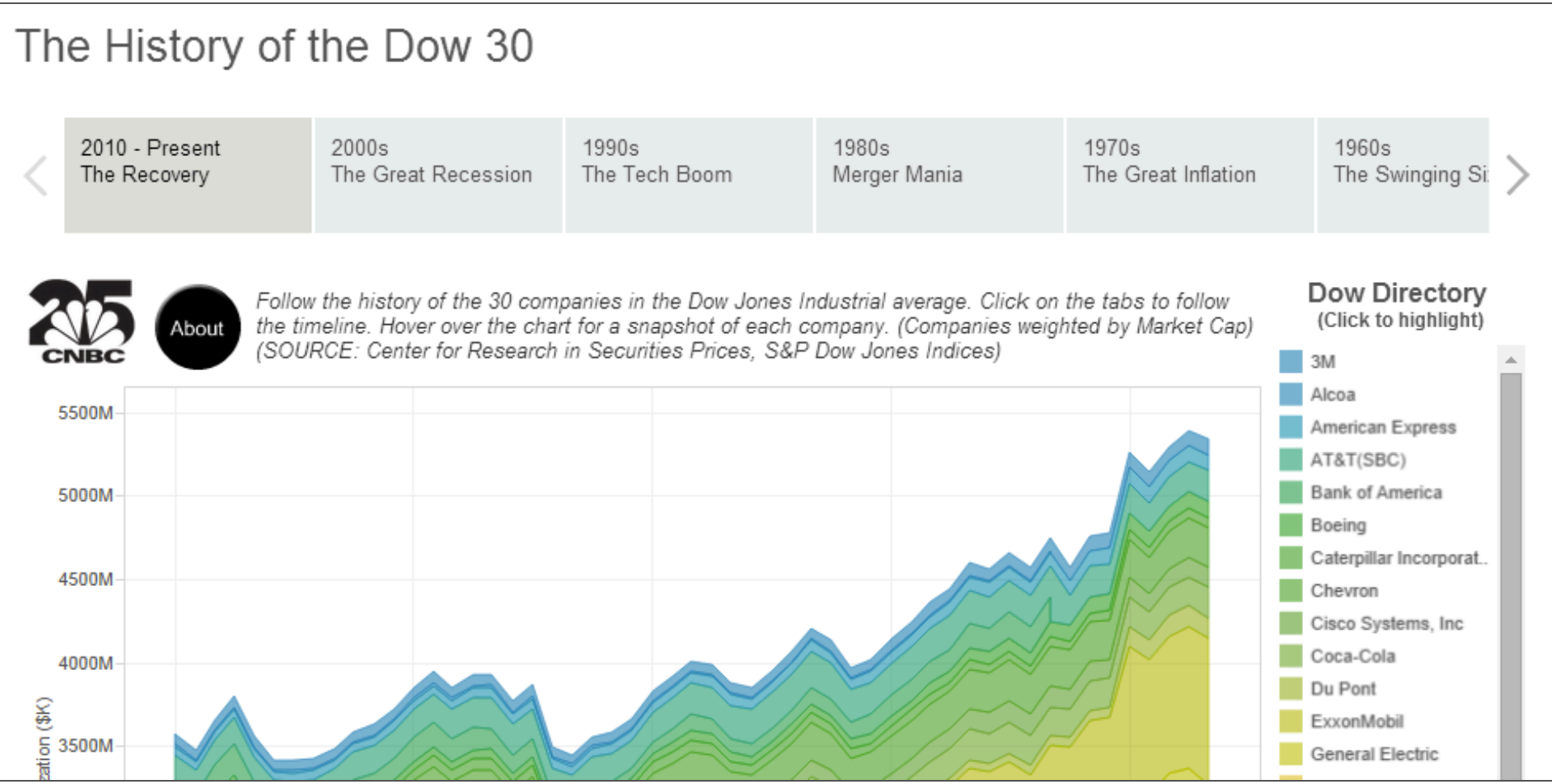
2

3

Based on McKenna et al. 2017, Visual Narrative Flow: Exploring Factors Shaping Data Visualization Storytelling Experiences. EuroVis.

1. http://www.nytimes.com/interactive/2013/04/16/science/disease-overlap-in-elderly.html
2. https://www.nytimes.com/interactive/2014/03/31/science/motorcycle-helmet-laws.html
3. http://www.nytimes.com/newsgraphics/2013/10/13/russia/

Steppers



https://public.tableau.com/s/sites/default/files/storypointstiles2.png

Steppers

Pros:

- Works with linear narrative, jumping between views
- Sense of story length
- Direct access & user control
- Discrete transitions

Cons:

- Requires greater interaction attention

UPDATED February 12, 2012

TWITTER LINKEDIN SHARE

Four Ways to Slice Obama's 2013 Budget Proposal

Explore every nook and cranny of President Obama's federal budget proposal.

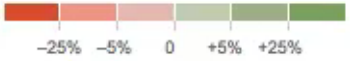
All Spending | Types of Spending | Changes | Department Totals

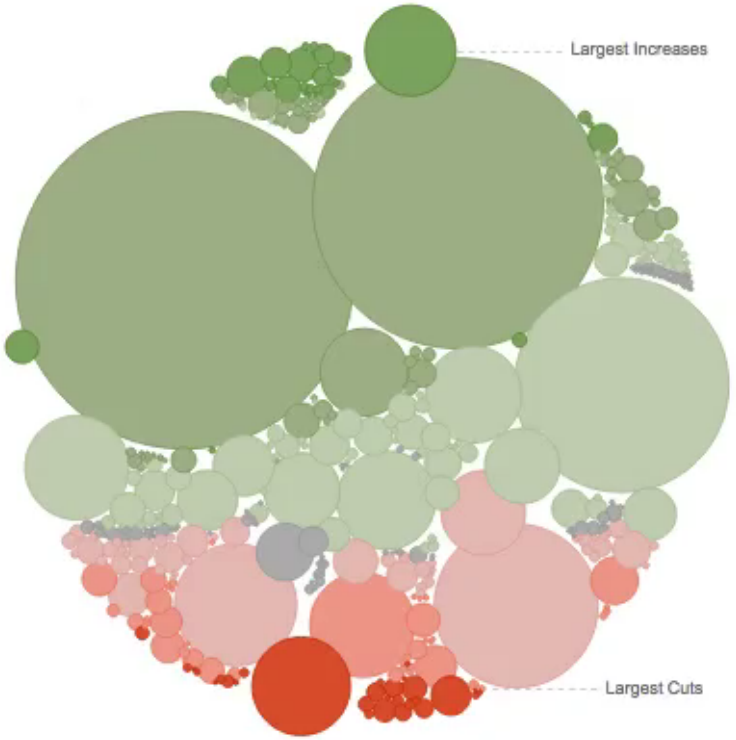
How $3.7 Trillion Is Spent

Mr. Obama's budget proposal includes $3.7 trillion in spending in 2013, and forecasts a $901 billion deficit.

Circles are sized according to the proposed spending.

Color shows amount of cut or increase from 2012.





The proposal forecasts a $901 billion deficit.

Chart shows $3.7 trillion authorized to be spent in 2013. (Total spending is estimated to be $3.8 trillion, including funds authorized in other years). Negative budget authority, which results from fees or other collections, is shown only on the department totals tab, but is included in other totals.

By SHAN CARTER | Send Feedback

http://www.nytimes.com/interactive/2012/02/13/us/politics/2013-budget-proposal-graphic.html

Scrollers

Pros

- Linear progression of content
- Continuous gesture with less effort

Cons:

- Less clear on story length
- More challenging to do complex transitions

Tips When ‘Scrollytelling’

Based on points from https://bost.ocks.org/mike/scroll/

Use continuous scrolling & provide gesture feedback

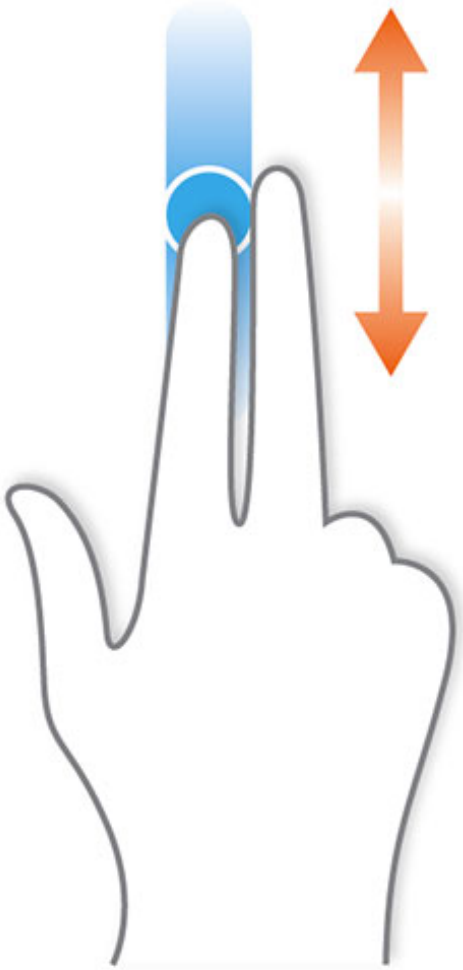


Image Source: http://www.designbolts.com

Support standard keyboard controls

- *right arrow* - scroll right
- *left arrow* - scroll left
- *up arrow* - scroll up
- *down arrow* - scroll down
- *home* or *command-up arrow* - scroll to the top
- *end* or *command-down arrow* - scroll to the bottom
- *page down* or *space* - scroll down one screen
- *page up* or *shift-space* - scroll up one screen

Optimize for foveal vision (don't be disruptive)

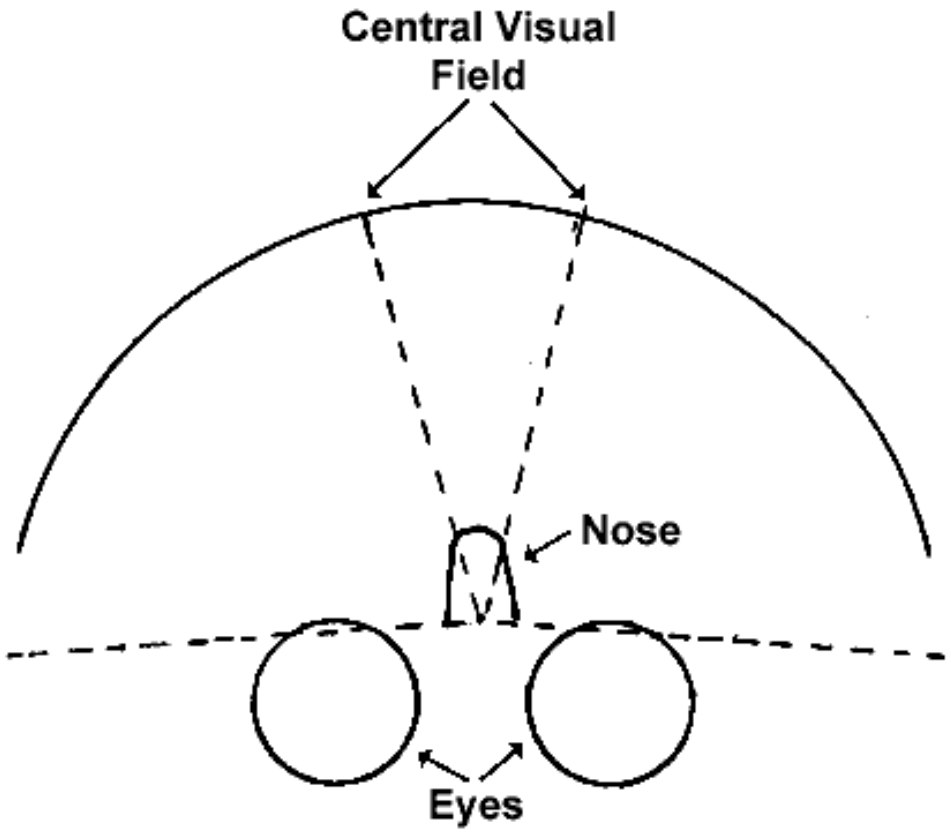


Image Source: https://faculty.washington.edu/chudler/gif/eyetrtop.gif

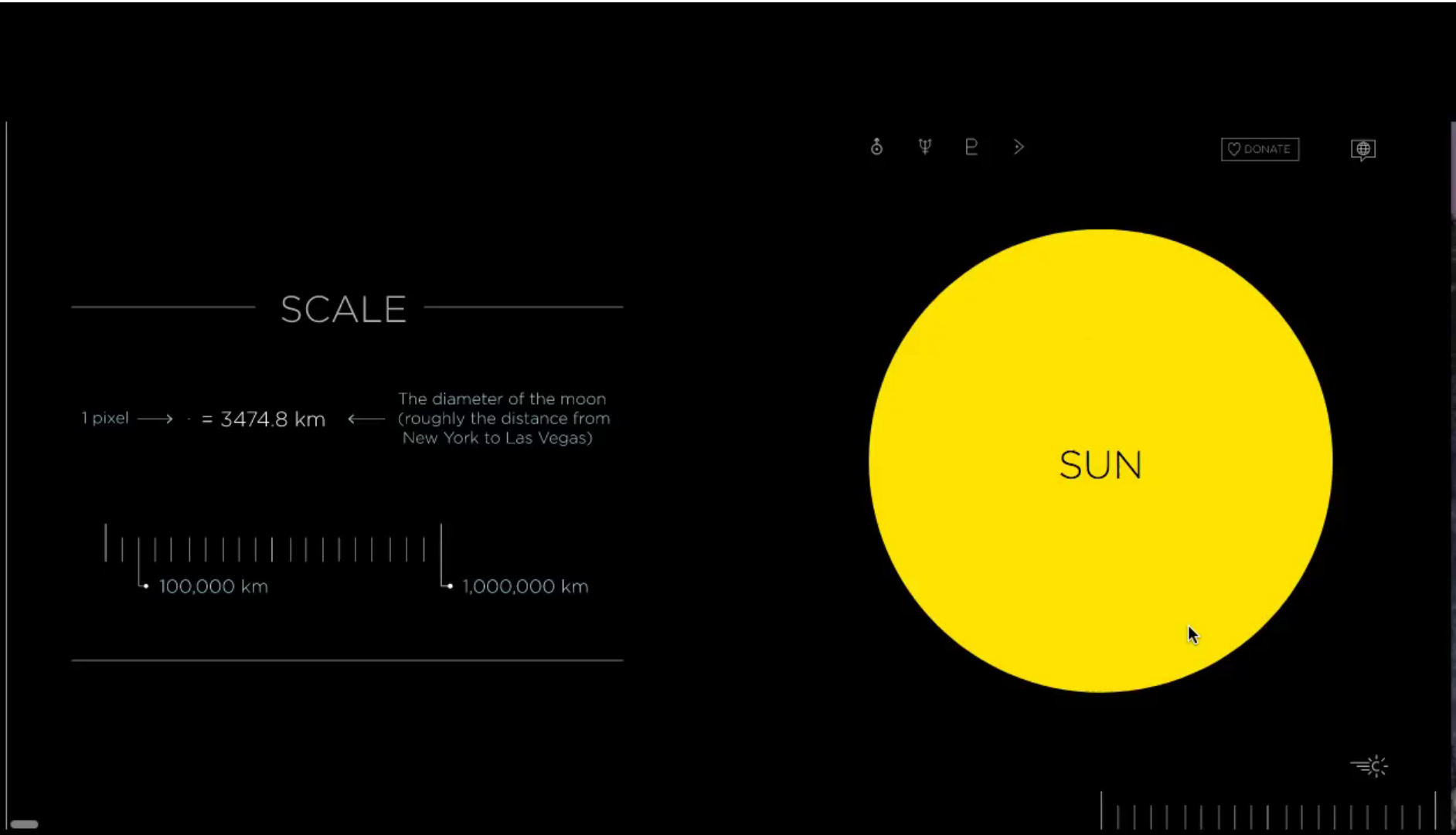
342,000 Swings Later, Derek Jeter Calls It a Career

By SHAN CARTER, JOE WARD and DAVID WALDSTEIN

The Times, with an assist from Jeter, has attempted to calculate the number of times he has swung a bat in his professional career — in practice and in games.

September 14, 2014

https://www.nytimes.com/interactive/2014/09/14/sports/baseball/jeter-swings.html



http://joshworth.com/dev/pixelspace/pixelspace_solarsystem.html

Bloomberg

Why Measles May Just Be Getting Started

By Keith Collins, Adam Pearce and Drew Armstrong | February 6, 2015

The California measles outbreak that started in Disneyland has so far infected about 100 people, most of them unvaccinated. It has struck fear among many parents that unvaccinated children will put their kids in danger. But there's a greater concern: If overall vaccination levels fall below 90 percent in states around the country, there is a higher likelihood that such isolated measles outbreaks will become widespread. Related Article →

The eradication of measles

In 1978, the Centers for

Measles vaccine introduced

800k

https://www.bloomberg.com/graphics/2015-measles-outbreaks/

Graph-Scroll JS Library

Simple scrolling events for D3 graphs

https://github.com/1wheel/graph-scroll

Graph-Scroll: Select text section & trigger active events

```
var gs = d3.graphScroll()
    .sections(d3.selectAll('#sections > div'))
    .on('active', function(i){
      //d3 vis code here
    })
```

https://github.com/1wheel/graph-scroll

Graph-Scroll: Specify graph behavior with CSS

```css
#graph{
  margin-left: 40px;
  width: 500px;
  top: 0px;
}

.graph-scroll-fixed #graph{
  position: fixed;
  top: 0px;
}

.graph-scroll-below #graph{
  bottom: 0px;
  top: auto;
}
```

https://github.com/1wheel/graph-scroll

JS Resources

Steppers:

- Using jQuery & D3
  http://vallandingham.me/stepper_steps.html

Scrollytelling:

- http://1wheel.github.io/graph-scroll/
- Scroll Demo
  https://github.com/vlandham/scroll_demo

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